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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**FORM 10-Q**

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(Mark One)

- QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended September 30, 2018

or

- TRANSITION REPORT PURSUANT TO SECTION 13 or 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from            to

Commission File Number 001-34091

**MARKETAXESS HOLDINGS INC.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**299 Park Avenue, 10th Floor New York, New York**  
(Address of principal executive offices)

**52-2230784**  
(IRS Employer  
Identification No.)

**10171**  
(Zip Code)

**(212) 813-6000**  
(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

As of October 22, 2018, the number of shares of the Registrant's voting common stock outstanding was 37,592,599.

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FORM 10-Q FOR THE QUARTERLY PERIOD ENDED SEPTEMBER 30, 2018  
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PART I — Financial Information

Item 1. Financial Statements

MARKETAXESS HOLDINGS INC.  
CONSOLIDATED STATEMENTS OF FINANCIAL CONDITION  
(Unaudited)

	As of	
	September 30, 2018	December 31, 2017
	(In thousands, except share and per share amounts)	
<b>ASSETS</b>		
Cash and cash equivalents	\$ 210,085	\$ 167,014
Investments, at fair value	236,101	239,521
Accounts receivable, net of allowance of \$91 and \$178 as of September 30, 2018 and December 31, 2017, respectively	62,004	52,636
Goodwill and intangible assets, net of accumulated amortization	62,771	63,059
Furniture, equipment, leasehold improvements and capitalized software, net of accumulated depreciation and amortization	54,320	38,548
Prepaid expenses and other assets	18,594	18,717
Deferred tax assets, net	2,256	1,737
<b>Total assets</b>	<b>\$ 646,131</b>	<b>\$ 581,232</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
<b>Liabilities</b>		
Accrued employee compensation	\$ 31,468	\$ 36,502
Income and other tax liabilities	12,921	13,061
Deferred revenue	3,785	2,660
Accounts payable, accrued expenses and other liabilities	19,339	14,241
<b>Total liabilities</b>	<b>67,513</b>	<b>66,464</b>
Commitments and Contingencies (Note 10)		
<b>Stockholders' equity</b>		
Preferred stock, \$0.001 par value, 4,855,000 shares authorized, no shares issued and outstanding as of September 30, 2018 and December 31, 2017	—	—
Series A Preferred Stock, \$0.001 par value, 110,000 shares authorized, no shares issued and outstanding as of September 30, 2018 and December 31, 2017	—	—
Common stock voting, \$0.003 par value, 110,000,000 shares authorized, 40,466,892 shares and 40,402,059 shares issued and 37,596,566 shares and 37,620,736 shares outstanding as of September 30, 2018 and December 31, 2017, respectively	121	121
Common stock non-voting, \$0.003 par value, 10,000,000 shares authorized, no shares issued and outstanding as of September 30, 2018 and December 31, 2017	—	—
Additional paid-in capital	336,079	331,081
Treasury stock - Common stock voting, at cost, 2,870,326 and 2,781,323 shares as of September 30, 2018 and December 31, 2017, respectively	(178,776)	(159,791)
Retained earnings	433,227	353,583
Accumulated other comprehensive (loss)	(12,033)	(10,226)
<b>Total stockholders' equity</b>	<b>578,618</b>	<b>514,768</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 646,131</b>	<b>\$ 581,232</b>

The accompanying notes are an integral part of these consolidated financial statements.

**MARKETAXESS HOLDINGS INC.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
(Unaudited)

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
	(In thousands, except share and per share amounts)			
<b>Revenues</b>				
Commissions	\$ 90,513	\$ 86,270	\$ 289,398	\$ 267,307
Information services	7,174	6,331	21,170	19,013
Post-trade services	3,475	2,678	11,671	7,623
Other	281	305	882	919
<b>Total revenues</b>	<u>101,443</u>	<u>95,584</u>	<u>323,121</u>	<u>294,862</u>
<b>Expenses</b>				
Employee compensation and benefits	26,282	25,485	81,315	78,088
Depreciation and amortization	6,173	4,583	17,232	14,066
Technology and communications	5,879	5,035	17,451	14,442
Professional and consulting fees	5,685	5,547	16,168	13,912
Occupancy	3,528	1,795	10,332	4,621
Marketing and advertising	2,980	2,089	8,580	6,757
Clearing costs	1,760	1,476	5,497	4,320
General and administrative	2,744	2,939	7,927	7,878
<b>Total expenses</b>	<u>55,031</u>	<u>48,949</u>	<u>164,502</u>	<u>144,084</u>
<b>Operating income</b>	46,412	46,635	158,619	150,778
<b>Other income (expense)</b>				
Investment income	1,635	964	4,186	2,551
Other, net	(250)	(382)	(785)	(932)
<b>Total other income</b>	<u>1,385</u>	<u>582</u>	<u>3,401</u>	<u>1,619</u>
<b>Income before income taxes</b>	47,797	47,217	162,020	152,397
Provision for income taxes	9,203	13,087	34,999	37,781
<b>Net income</b>	<u>\$ 38,594</u>	<u>\$ 34,130</u>	<u>\$ 127,021</u>	<u>\$ 114,616</u>
Net income per common share				
Basic	\$ 1.04	\$ 0.93	\$ 3.44	\$ 3.11
Diluted	\$ 1.02	\$ 0.90	\$ 3.36	\$ 3.01
Cash dividends declared per common share				
	\$ 0.42	\$ 0.33	\$ 1.26	\$ 0.99
Weighted average shares outstanding				
Basic	36,951	36,865	36,952	36,856
Diluted	37,828	38,019	37,859	38,069

The accompanying notes are an integral part of these consolidated financial statements.

**MARKETAXESS HOLDINGS INC.**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**  
(Unaudited)

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
	<b>(In thousands)</b>			
<b>Net income</b>	\$ 38,594	\$ 34,130	\$ 127,021	\$ 114,616
Net cumulative translation adjustment and foreign currency exchange hedge, net of tax of \$240, \$(953), \$746 and \$(2,586), respectively	(582)	1,102	(1,602)	2,061
Net unrealized gain (loss) on securities available-for-sale, net of tax of \$23, \$16, \$(66) and \$10, respectively	72	26	(205)	17
<b>Comprehensive income</b>	<u>\$ 38,084</u>	<u>\$ 35,258</u>	<u>\$ 125,214</u>	<u>\$ 116,694</u>

The accompanying notes are an integral part of these consolidated financial statements.

**MARKETAXESS HOLDINGS INC.**  
**CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY**  
(Unaudited)

	Common Stock Voting	Additional Paid-In Capital	Treasury Stock - Common Stock Voting	Retained Earnings	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
(In thousands)						
<b>Balance at December 31, 2017</b>	\$ 121	\$ 331,081	\$ (159,791)	\$ 353,583	\$ (10,226)	\$ 514,768
Net income	—	—	—	127,021	—	127,021
Cumulative translation adjustment and foreign currency exchange hedge, net of tax	—	—	—	—	(1,602)	(1,602)
Unrealized net (loss) on securities available-for-sale, net of tax	—	—	—	—	(205)	(205)
Stock-based compensation	—	11,551	—	—	—	11,551
Exercise of stock options	—	1,387	—	—	—	1,387
Withholding tax payments on restricted stock vesting and stock option exercises	—	(7,940)	—	—	—	(7,940)
Repurchases of common stock	—	—	(18,985)	—	—	(18,985)
Cash dividend on common stock	—	—	—	(47,377)	—	(47,377)
<b>Balance at September 30, 2018</b>	<u>\$ 121</u>	<u>\$ 336,079</u>	<u>\$ (178,776)</u>	<u>\$ 433,227</u>	<u>\$ (12,033)</u>	<u>\$ 578,618</u>

The accompanying notes are an integral part of these consolidated financial statements.

**MARKETAXESS HOLDINGS INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(Unaudited)

	<b>Nine Months Ended September 30,</b>	
	<b>2018</b>	<b>2017</b>
	<b>(In thousands)</b>	
<b>Cash flows from operating activities</b>		
Net income	\$ 127,021	\$ 114,616
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	17,232	14,066
Stock-based compensation expense	11,551	10,989
Deferred taxes	162	326
Other	2,005	1,290
Changes in operating assets and liabilities:		
(Increase) in accounts receivable	(9,560)	(12,535)
Decrease (increase) in prepaid expenses and other assets	97	(4,503)
Decrease in corporate debt trading investments	6,671	8,338
(Increase) in mutual funds held in rabbi trust	(1,317)	(1,730)
(Decrease) in accrued employee compensation	(5,034)	(3,756)
(Decrease) in income and other tax liabilities	(755)	(3,277)
Increase in deferred revenue	1,125	676
Increase (decrease) in accounts payable, accrued expenses and other liabilities	4,614	(2,917)
<b>Net cash provided by operating activities</b>	<b>153,812</b>	<b>121,583</b>
<b>Cash flows from investing activities</b>		
Available-for-sale investments		
Proceeds from maturities and sales	256,301	146,295
Purchases	(260,318)	(196,810)
Purchases of furniture, equipment and leasehold improvements	(23,821)	(7,245)
Capitalization of software development costs	(9,171)	(10,094)
Other	25	(53)
<b>Net cash (used in) investing activities</b>	<b>(36,984)</b>	<b>(67,907)</b>
<b>Cash flows from financing activities</b>		
Cash dividend on common stock	(46,893)	(36,717)
Exercise of stock options	1,387	1,640
Withholding tax payments on restricted stock vesting and stock option exercises	(7,940)	(12,906)
Repurchases of common stock	(18,985)	(36,352)
<b>Net cash (used in) financing activities</b>	<b>(72,431)</b>	<b>(84,335)</b>
<b>Effect of exchange rate changes on cash and cash equivalents</b>	<b>(1,326)</b>	<b>1,408</b>
<b>Cash and cash equivalents</b>		
Net increase (decrease) for the period	43,071	(29,251)
Beginning of period	167,014	168,243
<b>End of period</b>	<b>\$ 210,085</b>	<b>\$ 138,992</b>

The accompanying notes are an integral part of these consolidated financial statements.

**MARKETAXESS HOLDINGS INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Unaudited)**

**1. Organization and Principal Business Activity**

MarketAxess Holdings Inc. (the “Company” or “MarketAxess”) was incorporated in the State of Delaware on April 11, 2000. Through its subsidiaries, MarketAxess operates a leading electronic trading platform that enables fixed-income market participants to efficiently trade corporate bonds and other types of fixed-income instruments using MarketAxess’ patented trading technology. Over 1,400 institutional investor and broker-dealer firms are active users of the MarketAxess trading platform, accessing global liquidity in U.S. high-grade corporate bonds, emerging markets and high-yield bonds, European bonds, U.S. agency bonds, municipal bonds, credit default swaps and other fixed-income securities. Through its Open Trading™ protocols, MarketAxess executes certain bond transactions between and among institutional investor and broker-dealer clients on a matched principal basis by serving as counterparty to both the buyer and the seller in trades which then settle through a third-party clearing broker. MarketAxess also offers a number of trading-related products and services, including: market data to assist clients with trading decisions; connectivity solutions that facilitate straight-through processing; technology services to optimize trading environments; and execution services for exchange-traded fund managers and other clients. Through its Trax® division, MarketAxess also offers a range of pre- and post-trade services, including trade matching, trade publication, regulatory transaction reporting and market and reference data, across a range of fixed-income and other products.

**2. Significant Accounting Policies**

***Basis of Presentation***

The consolidated financial statements include the accounts of the Company and its subsidiaries. All intercompany transactions and balances have been eliminated. These consolidated financial statements are unaudited and should be read in conjunction with the audited consolidated financial statements included in the Company’s Annual Report on Form 10-K, as amended, for the year ended December 31, 2017. The consolidated financial information as of December 31, 2017 has been derived from audited financial statements not included herein. These unaudited consolidated financial statements are prepared in accordance with U.S. generally accepted accounting principles (“GAAP”) and the rules and regulations of the U.S. Securities and Exchange Commission (“SEC”) with respect to Form 10-Q and reflect all adjustments that, in the opinion of management, are normal and recurring, and that are necessary for a fair statement of the results for the interim periods presented. In accordance with such rules and regulations, certain disclosures that are normally included in annual financial statements have been omitted. Interim period operating results may not be indicative of the operating results for a full year.

***Accounting Pronouncements, Recently Adopted***

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2014-09, “Revenue from Contracts with Customers” (“ASU 2014-09”) requiring an entity to recognize revenue for the transfer of goods or services equal to the amount that it expects to be entitled to receive for those goods or services. The standard also requires new disclosure concerning contracts with customers, including the significant judgments made when applying the guidance. The Company adopted ASU 2014-09 effective January 1, 2018 using the modified retrospective transition approach. The Company completed its analysis and the adoption of this guidance did not have a material impact on the Company’s Consolidated Financial Statements.

***Accounting Pronouncements, Not Yet Adopted as of September 30, 2018***

In February 2016, the FASB issued ASU 2016-02, “Leases” (“ASU 2016-02”) requiring lessees to recognize right-of-use assets and lease liabilities on the balance sheet for those leases previously classified as operating leases with lease terms greater than 12 months. ASU 2016-02 will be effective for the Company beginning January 1, 2019 and early adoption is permitted. The Company is currently evaluating the adoption implications and expects that there will be a material impact to its Consolidated Statements of Financial Condition when the Company recognizes new right-of-use assets and lease liabilities associated with the future minimum payments required under operating leases. The presentation of occupancy expense and the pattern of expense recognition within the Consolidated Financial Statements of Operations and Consolidated Statements of Cash Flows is expected to be consistent with the current lease accounting guidance.

In January 2017, the FASB issued ASU 2017-04, “Intangibles-Goodwill and Other” (“ASU 2017-04”). ASU 2017-04 simplifies the testing for goodwill impairment. The guidance will be effective for the Company beginning January 1, 2020 and early adoption is permitted and should be applied prospectively. The adoption of this guidance is not expected to have a material effect on the Company’s Consolidated Financial Statements.



### ***Cash and Cash Equivalents***

Cash and cash equivalents includes cash and money market instruments that are primarily maintained at one major global bank. Given this concentration, the Company is exposed to certain credit risk in relation to its deposits at this bank. The Company defines cash equivalents as short-term interest-bearing investments with maturities at the time of purchase of three months or less.

### ***Investments***

The Company determines the appropriate classification of securities at the time of purchase which are recorded in the Consolidated Statements of Financial Condition on the trade date. Securities are classified as available-for-sale or trading. The Company's available-for-sale and trading investments are comprised of investment grade corporate debt securities. Available-for-sale investments are carried at fair value with the unrealized gains or losses reported in accumulated other comprehensive loss in the Consolidated Statements of Financial Condition. Trading investments are carried at fair value, with realized and unrealized gains or losses included in other, net in the Consolidated Statements of Operations.

The Company assesses whether an other-than-temporary impairment loss on the available-for-sale investments has occurred due to declines in fair value or other market conditions. The portion of an other-than-temporary impairment related to credit loss is recorded as a charge in the Consolidated Statements of Operations. The remainder is recognized in accumulated other comprehensive loss if the Company does not intend to sell the security and it is more likely than not that the Company will not be required to sell the security prior to recovery. No charges for other-than-temporary losses were recorded during the nine months ended September 30, 2018 and 2017.

### ***Fair Value Financial Instruments***

Fair value is defined as "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date." A three-tiered hierarchy for determining fair value has been established that prioritizes inputs to valuation techniques used in fair value calculations. The three levels of inputs are defined as Level 1 (unadjusted quoted prices for identical assets or liabilities in active markets), Level 2 (inputs that are observable in the marketplace other than those inputs classified in Level 1) and Level 3 (inputs that are unobservable in the marketplace). The Company's financial assets and liabilities measured at fair value on a recurring basis consist of its money market funds, securities available-for-sale, trading securities and foreign currency forward contracts. All other financial instruments are short-term in nature and the carrying amount is reported on the Consolidated Statements of Financial Condition at approximate fair value.

### ***Allowance for Doubtful Accounts***

All accounts receivable have contractual maturities of less than one year and are derived from trading-related fees and commissions and revenues from products and services. The Company continually monitors collections and payments from its customers and maintains an allowance for doubtful accounts. The allowance for doubtful accounts is based upon the historical collection experience and specific collection issues that have been identified. Additions to the allowance for doubtful accounts are charged to bad debt expense, which is included in general and administrative expense in the Company's Consolidated Statements of Operations.

### ***Depreciation and Amortization***

Fixed assets are carried at cost less accumulated depreciation. The Company uses the straight-line method of depreciation over three to seven years. The Company amortizes leasehold improvements on a straight-line basis over the lesser of the life of the improvement or the remaining term of the lease.

### ***Software Development Costs***

The Company capitalizes certain costs associated with the development of internal use software, including among other items, employee compensation and related benefits and third party consulting costs at the point at which the conceptual formulation, design and testing of possible software project alternatives have been completed. Once the product is ready for its intended use, such costs are amortized on a straight-line basis over three years. The Company reviews the amounts capitalized for impairment whenever events or changes in circumstances indicate that the carrying amounts of the assets may not be recoverable.

### ***Cash Provided as Collateral***

Cash is provided as collateral for broker-dealer clearing accounts. Cash provided as collateral is included in prepaid expenses and other assets in the Consolidated Statements of Financial Condition.

### ***Foreign Currency Translation and Forward Contracts***

Assets and liabilities denominated in foreign currencies are translated using exchange rates at the end of the period; revenues and expenses are translated at average monthly rates. Gains and losses on foreign currency translation are a component of accumulated other comprehensive loss in the Consolidated Statements of Financial Condition. Transaction gains and losses are recorded in other, net in the Consolidated Statements of Operations.

The Company enters into foreign currency forward contracts to hedge its net investment in its U.K. subsidiaries. Gains and losses on these transactions are included in accumulated other comprehensive loss in the Consolidated Statements of Financial Condition.

### ***Revenue Recognition***

On January 1, 2018, the Company adopted ASU 2014-09 using the modified retrospective approach. The adoption of ASU 2014-09 did not have a material impact on the measurement or recognition of revenue in any prior or current reporting periods.

The Company's classification of revenues in the Consolidated Statements of Operations represents revenues from contracts with customers disaggregated by type of revenue.

The Company has four revenue streams as described below.

**Commission Revenue.** The Company charges its broker-dealer clients variable transaction fees for trades executed on its platform and, under certain plans, distribution fees or monthly minimum fees to use the platform for a particular product area. Variable transaction fees are generally calculated as a percentage of the notional dollar volume of bonds traded on the platform and vary based on the type, size, yield and maturity of the bond traded. Under the Company's disclosed trading transaction fee plans, bonds that are more actively traded or that have shorter maturities are generally charged lower commissions, while bonds that are less actively traded or that have longer maturities generally command higher commissions. Variable transaction fees, distribution fees and unused monthly fee commitments are invoiced and recorded on a monthly basis.

For trades that the Company executes between and among institutional investor and broker-dealer clients on a matched principal basis by serving as counterparty to both the buyer and the seller, the Company earns its commission through the difference in price between the two trades. The commission is collected upon settlement of the trade, which typically occurs within one to two trading days after the trade date. The following table presents commission revenue by fee type for the three and nine months ended September 30, 2018 and 2017:

	<b>Three Months Ended September 30,</b>		<b>Nine Months Ended September 30,</b>	
	<b>2018</b>	<b>2017</b>	<b>2018</b>	<b>2017</b>
	<b>(In thousands)</b>			
<b>Commission revenue by fee type</b>				
Variable transaction fees				
Disclosed trading	\$ 49,727	\$ 54,663	\$ 172,443	\$ 179,933
Open Trading™ - matched principal trading	16,228	11,284	44,943	34,445
Total variable transaction fees	<u>65,955</u>	<u>65,947</u>	<u>217,386</u>	<u>214,378</u>
Distribution fees and unused minimum fees	24,558	20,323	72,012	52,929
Total commissions	<u>\$ 90,513</u>	<u>\$ 86,270</u>	<u>\$ 289,398</u>	<u>\$ 267,307</u>

*Information services* – Information services includes data licensed to the Company’s broker-dealer clients, institutional investor clients and data-only subscribers; professional and consulting services; technology software licenses; and maintenance and support services. The nature and timing of each performance obligation may vary as these contracts are either subscription based services transferred over time or one-time services that are transferred at a point in time. Revenues for services transferred over time are recognized ratably over the contract period as the Company’s performance obligation is met whereas revenues for services transferred at a point in time are recognized in the period the services are provided. Customers are generally billed monthly, quarterly, or annually; revenues billed in advance are deferred and recognized ratably over the contract period. The following table presents information services revenue by timing of recognition for the three and nine months ended September 30, 2018 and 2017:

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
	(In thousands)			
<b>Information services revenue by timing of recognition</b>				
Services transferred over time	\$ 7,029	\$ 6,267	\$ 20,652	\$ 18,599
Services transferred at a point in time	145	64	518	414
Total information services revenues	<u>\$ 7,174</u>	<u>\$ 6,331</u>	<u>\$ 21,170</u>	<u>\$ 19,013</u>

*Post-trade services* – Post-trade services revenue is generated from regulatory transaction reporting, trade publication and trade matching services. Customers are generally billed monthly in arrears and revenue is recognized in the period transactions are processed. Revenues billed in advance are deferred and recognized ratably over the contract period. The Company also generates one-time implementation fees for onboarding clients which are invoiced and recognized in the period the implementation is completed. The following table presents post-trade services revenue by timing of recognition for the three and nine months ended September 30, 2018 and 2017:

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
	(In thousands)			
<b>Post-trade services revenue by timing of recognition</b>				
Services transferred over time	\$ 3,463	\$ 2,366	\$ 11,370	\$ 7,285
Services transferred at a point in time	12	312	301	338
Total post-trade services revenues	<u>\$ 3,475</u>	<u>\$ 2,678</u>	<u>\$ 11,671</u>	<u>\$ 7,623</u>

*Other revenues* – Other revenues primarily includes revenue from telecommunications line charges to broker-dealer clients.

Contract liabilities consist of deferred revenues that the Company records when cash payments are received or due in advance of services to be performed. The revenue recognized from contract liabilities and the remaining balance is shown below:

	<u>December 31,</u>	<u>Payments</u>	<u>Revenue</u>	<u>Foreign</u>	<u>September 30,</u>
	<u>2017</u>	<u>received in</u>	<u>recognized for</u>	<u>Currency</u>	<u>2018</u>
		<u>advance of</u>	<u>services</u>	<u>Translation</u>	
		<u>services to be</u>	<u>performed</u>		
		<u>performed</u>	<u>during the period</u>		
	(In thousands)				
Information services	\$ 1,763	\$ 5,724	\$ (5,088)	\$ —	\$ 2,399
Post-trade services	897	9,296	(8,775)	(32)	1,386
Total deferred revenue	<u>\$ 2,660</u>	<u>\$ 15,020</u>	<u>\$ (13,863)</u>	<u>\$ (32)</u>	<u>\$ 3,785</u>

The majority of the Company's contracts are short-term in nature with durations of less than one-year. For contracts extending beyond one year, the aggregate amount of the transaction price allocated to remaining performance obligations was \$8.8 million as of September 30, 2018. The Company expects to recognize revenue associated with the remaining performance obligations over the next 19 months.

### ***Stock-Based Compensation***

The Company measures and recognizes compensation expense for all share-based payment awards based on their estimated fair values measured as of the grant date. These costs are recognized as an expense in the Consolidated Statements of Operations over the requisite service period, which is typically the vesting period, with an offsetting increase to additional paid-in capital. Forfeitures are recognized as they occur.

### ***Income Taxes***

Income taxes are accounted for using the asset and liability method. Deferred income taxes reflect the net tax effects of temporary differences between the financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when such differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is recognized against deferred tax assets if it is more likely than not that such assets will not be realized in future years. The Company recognizes interest and penalties related to unrecognized tax benefits in general and administrative expenses in the Consolidated Statements of Operations. Effective upon the Company's adoption of ASU 2016-09, all tax effects related to share-based payments are recorded through tax expense in the periods during which the awards are exercised or vest.

On December 22, 2017, the SEC issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act ("SAB 118") to address the application of U.S. generally accepted accounting principles ("GAAP") related to the enactment of the Tax Cuts and Jobs Act (the "Tax Act"). SAB 118 allows the Company to record a provisional amount when it does not have the necessary information available, prepared, or analyzed in reasonable detail to complete its accounting for the change in the tax law. The measurement period ends when the Company has obtained, prepared and analyzed the information necessary to finalize its accounting, but cannot extend beyond one year. The Company expects to complete its analysis within the measurement period in accordance with SAB 118.

### ***Business Combinations, Goodwill and Intangible Assets***

Business combinations are accounted for under the purchase method of accounting. The total cost of an acquisition is allocated to the underlying net assets based on their respective estimated fair values. The excess of the purchase price over the estimated fair values of the net assets acquired is recorded as goodwill. Determining the fair value of certain assets acquired and liabilities assumed is judgmental in nature and often involves the use of significant estimates and assumptions, including assumptions with respect to future cash flows, discount rates, growth rates and asset lives.

The Company operates as a single reporting unit. Subsequent to an acquisition, goodwill no longer retains its identification with a particular acquisition, but instead becomes identifiable with the entire reporting unit. As a result, all of the fair value of the Company is available to support the value of goodwill. An impairment review of goodwill is performed on an annual basis, at year-end, or more frequently if circumstances change. Intangible assets with definite lives, including purchased technologies, customer relationships and other intangible assets, are amortized on a straight-line basis over their estimated useful lives, ranging from three to 15 years. Intangible assets are assessed for impairment when events or circumstances indicate the existence of a possible impairment.

### ***Earnings Per Share***

Basic earnings per share is computed by dividing the net income attributable to common stock by the weighted-average number of shares of common stock outstanding during the period. For purposes of computing diluted earnings per share, the weighted-average shares outstanding of common stock reflects the dilutive effect that could occur if convertible securities or other contracts to issue common stock were converted into or exercised for common stock.

### ***Use of Estimates***

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

### Reclassifications

Certain reclassifications have been made to the prior period's Consolidated Financial Statements in order to conform to the current year presentation. The Company reclassified certain revenue line items on the Consolidated Statements of Operations to separately reflect information service revenues and post-trade service revenues. The Company also revised the format of the Consolidated Statements of Operations to separately present non-operating activities. Such activities include investment income, unrealized and realized gains (losses) on trading securities, foreign exchange gains (losses), investment advisory fees and other miscellaneous non-operating activities. Accordingly, the Company reclassified these amounts from the various revenue and expense line items to Other income (expense). The reclassifications had no effect on previously reported income before income taxes or net income.

### 3. Net Capital Requirements

Certain U.S. subsidiaries of the Company are registered as a broker-dealer or swap execution facility and therefore are subject to the applicable rules and regulations of the SEC and the Commodity Futures Trading Commission ("CFTC"). These rules contain minimum net capital requirements, as defined in the applicable regulations, and also may require a significant part of the registrants' assets be kept in relatively liquid form. Certain of the Company's foreign subsidiaries are regulated by the Financial Conduct Authority in the U.K. or other foreign regulators and must maintain financial resources, as defined in the applicable regulations, in excess of the applicable financial resources requirement. As of September 30, 2018, each of the Company's subsidiaries that are subject to these regulations had net capital or financial resources in excess of their minimum requirements. As of September 30, 2018, the Company's subsidiaries maintained aggregate net capital and financial resources that was \$170.6 million in excess of the required levels of \$14.8 million.

Each of the Company's U.S. and foreign regulated subsidiaries are subject to local regulations which generally prohibit repayment of borrowings from the Company or affiliates, paying cash dividends, making loans to the Company or affiliates or otherwise entering into transactions that result in a significant reduction in regulatory net capital or financial resources without prior notification to or approval from such regulated entity's principal regulator.

### 4. Fair Value Measurements

The following table summarizes the valuation of the Company's assets and liabilities measured at fair value as categorized based on the hierarchy described in Note 2.

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
	(In thousands)			
<b>September 30, 2018</b>				
Money market funds	\$ 112,829	\$ —	\$ —	\$ 112,829
Securities available-for-sale				
Corporate debt	—	148,236	—	148,236
Trading securities				
Corporate debt	—	83,381	—	83,381
Mutual funds held in rabbi trust	—	4,484	—	4,484
Foreign currency forward position	—	1,469	—	1,469
Total	<u>\$ 112,829</u>	<u>\$ 237,570</u>	<u>\$ —</u>	<u>\$ 350,399</u>
<b>December 31, 2017</b>				
Money market funds	\$ 88,562	\$ —	\$ —	\$ 88,562
Securities available-for-sale				
Corporate debt	—	145,052	—	145,052
Trading securities				
Corporate debt	—	91,302	—	91,302
Mutual funds held in rabbi trust	—	3,167	—	3,167
Foreign currency forward position	—	(702)	—	(702)
Total	<u>\$ 88,562</u>	<u>\$ 238,819</u>	<u>\$ —</u>	<u>\$ 327,381</u>

Securities classified within Level 2 were valued using a market approach utilizing prices and other relevant information generated by market transactions involving comparable assets. The foreign currency forward contracts are classified within Level 2 as the valuation inputs are based on quoted market prices. The mutual funds held in a rabbi trust represent investments associated with the deferred cash incentive plan (see Note 13). There were no financial assets classified within Level 3 during the nine months ended September 30, 2018 and 2017.

The Company enters into foreign currency forward contracts to hedge the net investment in the Company's U.K. subsidiaries. The Company designates each foreign currency forward contract as a hedge and assesses the risk management objective and strategy, including identification of the hedging instrument, the hedged item and the risk exposure and how effectiveness is to be assessed prospectively and retrospectively. These hedges are for a one-month period and are used to limit exposure to foreign currency exchange rate fluctuations. The fair value of the asset is included in prepaid expenses and other assets and the fair value of the liability is included in accounts payable, accrued expenses and other liabilities in the Consolidated Statements of Financial Condition. Gains or losses on foreign currency forward contracts designated as hedges are included in accumulated other comprehensive loss in the Consolidated Statements of Financial Condition. A summary of the Company's foreign currency forward position is as follows:

	As of	
	September 30, 2018	December 31, 2017
(In thousands)		
Notional value	\$ 100,797	\$ 84,422
Fair value of notional	99,328	85,124
Fair value of the asset (liability)	<u>\$ 1,469</u>	<u>\$ (702)</u>

The following is a summary of the Company's investments:

	Amortized cost	Gross unrealized gains	Gross unrealized losses	Estimated fair value
(In thousands)				
<b>As of September 30, 2018</b>				
<b>Securities available-for-sale</b>				
Corporate debt	\$ 148,981	\$ 14	\$ (759)	\$ 148,236
<b>Trading securities</b>				
Corporate debt	83,891	10	(520)	83,381
Mutual funds held in rabbi trust	4,347	—	137	4,484
Total trading securities	<u>88,238</u>	<u>10</u>	<u>(383)</u>	<u>87,865</u>
<b>Total investments</b>	<u>\$ 237,219</u>	<u>\$ 24</u>	<u>\$ (1,142)</u>	<u>\$ 236,101</u>
<b>December 31, 2017</b>				
<b>Securities available-for-sale</b>				
Corporate debt	\$ 145,526	\$ 9	\$ (483)	\$ 145,052
<b>Trading securities</b>				
Corporate debt	91,578	30	(306)	91,302
Mutual funds held in rabbi trust	2,729	438	—	3,167
Total trading securities	<u>94,307</u>	<u>468</u>	<u>(306)</u>	<u>94,469</u>
<b>Total investments</b>	<u>\$ 239,833</u>	<u>\$ 477</u>	<u>\$ (789)</u>	<u>\$ 239,521</u>

The following table summarizes the fair value of the investments based upon the contractual maturities:

	As of	
	September 30, 2018	December 31, 2017
	(In thousands)	
Less than one year	\$ 140,544	\$ 130,738
Due in 1 - 5 years	95,557	108,783
Total	<u>\$ 236,101</u>	<u>\$ 239,521</u>

Proceeds from the sales and maturities of investments during the nine months ended September 30, 2018 and 2017 were \$308.3 million and \$170.1 million, respectively.

The following table provides fair values and unrealized losses on investments and by the aging of the securities' continuous unrealized loss position as of September 30, 2018 and December 31, 2017:

	Less than Twelve Months		Twelve Months or More		Total	
	Estimated fair value	Gross unrealized losses	Estimated fair value	Gross unrealized losses	Estimated fair value	Gross unrealized losses
	(In thousands)					
<b>As of September 30, 2018</b>						
Corporate debt	\$ 119,485	\$ (716)	\$ 60,425	\$ (563)	\$ 179,910	\$ (1,279)
<b>As of December 31, 2017</b>						
Corporate debt	\$ 177,114	\$ (536)	\$ 26,476	\$ (253)	\$ 203,590	\$ (789)

#### 5. Goodwill and Intangible Assets

Goodwill and intangible assets with indefinite lives was \$59.7 million as of both September 30, 2018 and December 31, 2017. Intangible assets that are subject to amortization, including the related accumulated amortization, are comprised of the following:

	September 30, 2018			December 31, 2017		
	Cost	Accumulated amortization	Net carrying amount	Cost	Accumulated amortization	Net carrying amount
	(In thousands)					
Technology	\$ 5,770	\$ (5,770)	\$ —	\$ 5,770	\$ (5,770)	\$ —
Customer relationships	5,639	(2,580)	3,059	5,647	(2,301)	3,346
Non-competition agreements	380	(380)	—	380	(380)	—
Tradenames	370	(370)	—	370	(370)	—
Total	<u>\$ 12,159</u>	<u>\$ (9,100)</u>	<u>\$ 3,059</u>	<u>\$ 12,167</u>	<u>\$ (8,821)</u>	<u>\$ 3,346</u>

Amortization expense associated with identifiable intangible assets was \$0.3 million for each of the nine months ended September 30, 2018 and 2017, respectively. Estimated total amortization expense is \$0.4 million for each year from 2018 through 2022.

## 6. Income Taxes

The provision for income taxes consists of the following:

	<b>Three Months Ended September 30,</b>		<b>Nine Months Ended September 30,</b>	
	<b>2018</b>	<b>2017</b>	<b>2018</b>	<b>2017</b>
<b>Current:</b>				
Federal	\$ 6,358	\$ 11,331	\$ 23,119	\$ 28,676
State and local	1,619	1,651	5,616	4,579
Foreign	2,502	1,191	6,036	4,234
Total current provision	10,479	14,173	34,771	37,489
<b>Deferred:</b>				
Federal	(663)	(930)	(321)	130
State and local	(136)	(158)	(107)	(64)
Foreign	(477)	2	656	226
Total deferred provision	(1,276)	(1,086)	228	292
Provision for income taxes	\$ 9,203	\$ 13,087	\$ 34,999	\$ 37,781

The Company recognized excess tax benefits on share-based payments of \$1.7 million and \$3.8 million through the provision for income taxes, for the three months ended September 30, 2018 and 2017, respectively, and \$3.7 million and \$14.8 million for the nine months ended September 30, 2018 and 2017, respectively.

On December 22, 2017, the Tax Act was enacted into law. The Tax Act significantly revised the U.S. corporate income tax regime by, among other things, lowering the U.S. federal corporate income tax rate from 35% to 21%, implementing a territorial tax system and imposing a repatriation tax on deemed earnings of foreign subsidiaries. The Company has made a reasonable estimate of the impact of the Tax Act and recorded a provisional tax charge in 2017 of \$11.7 million, composed of \$6.7 million to re-measure U.S. deferred tax assets and \$5.0 million for the repatriation tax on accumulated undistributed foreign earnings. During the three months ended September 30, 2018, the Company reduced the provisional tax charge by \$0.4 million as a result of new regulatory guidance and changes in interpretations and assumptions made by the Company. The final impact of the Tax Act may differ materially from the revised provisional tax charge as a result of, among other things, changes in interpretations and assumptions the Company has made, guidance that may be issued by the U.S. Department of the Treasury and actions the Company may take as a result of the Tax Act.

The Company or one of its subsidiaries files U.S. federal, state and foreign income tax returns. Income tax returns for U.S. Federal (through 2013), New York City (through 2003) and state (through 2009) and Connecticut state (through 2003) have been audited. An examination of the Company's New York State income tax returns for 2010 through 2015 is currently underway. The Company cannot estimate when the examination will conclude or the impact such examination will have on the Company's Consolidated Financial Statements, if any.

Pursuant to the Tax Act, all previously undistributed foreign earnings have now been subject to U.S. tax. Notwithstanding the U.S. taxation of these amounts, the Company considers its undistributed foreign earnings to be indefinitely reinvested outside of the U.S. and does not expect to incur any significant additional taxes related to such amounts.

## 7. Stock-Based Compensation Plans

Stock-based compensation expense for the three and nine months ended September 30, 2018 and 2017 was as follows:

	<b>Three Months Ended September 30,</b>		<b>Nine Months Ended September 30,</b>	
	<b>2018</b>	<b>2017</b>	<b>2018</b>	<b>2017</b>
<b>(In thousands)</b>				
Employees	\$ 3,654	\$ 3,280	\$ 10,739	\$ 10,273
Non-employee directors	296	241	812	716
Total stock-based compensation	\$ 3,950	\$ 3,521	\$ 11,551	\$ 10,989



The Company records stock-based compensation expense for employees in employee compensation and benefits and for non-employee directors in general and administrative expenses in the Consolidated Statements of Operations.

During the nine months ended September 30, 2018, the Company granted to employees a total of 53,261 shares of restricted stock or restricted stock units, 19,693 options to purchase shares of common stock and performance-based shares with an expected pay-out at target of 10,479 shares of common stock. The fair value of the restricted stock and performance-based share awards was based on a weighted-average fair value per share at the grant date of \$201.49 and \$202.04, respectively. Based on the Black-Scholes option pricing model, the weighted-average fair value for each option granted was \$56.11 per share.

As of September 30, 2018, the total unrecognized compensation cost related to all non-vested awards was \$24.2 million. That cost is expected to be recognized over a weighted-average period of 1.6 years.

## 8. Earnings Per Share

The following table sets forth the computation of basic and diluted earnings per common share:

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
	<b>(In thousands, except per share amounts)</b>			
Basic weighted average shares outstanding	36,951	36,865	36,952	36,856
Dilutive effect of stock options and restricted stock	877	1,154	907	1,213
Diluted weighted average shares outstanding	<u>37,828</u>	<u>38,019</u>	<u>37,859</u>	<u>38,069</u>

Stock options and restricted stock totaling 28,760 shares and 10,729 shares for the three months ended September 30, 2018 and 2017, respectively, and 42,159 shares and 40,485 shares for the nine months ended September 30, 2018 and 2017, respectively, were excluded from the computation of diluted earnings per share because their effect would have been antidilutive. The computation of diluted shares can vary among periods due, in part, to the change in the average price of the Company's common stock.

## 9. Credit Agreement

In October 2015, the Company entered into a two-year amended and restated credit agreement (the "Credit Agreement") that provided for revolving loans and letters of credit up to an aggregate of \$100.0 million. The Company amended the Credit Agreement in October 2017 and extended the maturity date to October 2018. The amended Credit Agreement also provided for two additional one-year extension options and modified certain borrowing terms and covenants. In October 2018, the Company exercised its first option to extend the maturity date to October 2019. Subject to satisfaction of certain specified conditions, the Company is permitted to upsize the borrowing capacity under the Credit Agreement by an additional \$50.0 million. As of September 30, 2018, the Company had \$1.7 million in letters of credit outstanding and \$98.3 million in available borrowing capacity under the Credit Agreement.

Borrowings under the Credit Agreement will bear interest at a rate per annum equal to the base rate or adjusted LIBOR plus an applicable margin that varies with the Company's consolidated total leverage ratio. The Credit Agreement requires that the Company satisfies certain covenants, which includes leverage ratios and minimum earnings before interest, tax, depreciation and amortization ("EBITDA") requirements. The Company was in compliance with all applicable covenants at September 30, 2018 and December 31, 2017.

The Company's existing and future domestic subsidiaries (other than any regulated subsidiary) have guaranteed the Company's obligations under the Credit Agreement. Subject to customary exceptions and exclusions, the Company's borrowings under the Credit Agreement are collateralized by first priority pledges (subject to permitted liens) of substantially all of the Company's personal property assets and the personal property assets of the Company's domestic subsidiaries that have guaranteed the Credit Agreement, including the equity interests of the Company's domestic subsidiaries and the equity interests of certain of the Company's foreign subsidiaries (limited, in the case of the voting equity interests of the foreign subsidiaries, to a pledge of 65% of those equity interests).

If an event of default occurs, including failure to pay principal or interest due on the loan balance, a voluntary or involuntary proceeding seeking liquidation, change in control of the Company, or one or more material judgments against the Company in excess of \$10.0 million, the lenders would be entitled to accelerate the borrowings under the Credit Agreement and take various other actions, including all actions permitted to be taken by a secured creditor. If certain bankruptcy events of default occur, the borrowings under the Credit Agreement will automatically accelerate.

## 10. Commitments and Contingencies

### *Lease Commitments*

The Company leases office space under non-cancelable lease agreements expiring at various dates through 2033. Office space leases are subject to escalation based on certain costs incurred by the landlord. Minimum rental commitments as of September 30, 2018 under such operating leases were as follows (in thousands):

Remainder of 2018	\$	1,198
2019		9,610
2020		10,725
2021		10,126
2022		9,089
2023 and thereafter		99,008
	<u>\$</u>	<u>139,756</u>

Rental expense was \$9.6 million and \$4.1 million for the nine months ended September 30, 2018 and 2017, respectively, and is included in occupancy expense in the Consolidated Statements of Operations. Rental expense has been recorded based on the total minimum lease payments after giving effect to rent abatement and concessions, which are being amortized on a straight-line basis over the life of the lease. The Company is contingently obligated for standby letters of credit amounting to \$1.7 million that were issued to landlords for office space.

During 2016, the Company entered into a fifteen-year lease agreement for its new global headquarters in New York City. The Company expects to relocate its headquarters to approximately 83,000 square feet of newly built office space at 55 Hudson Yards upon the building's completion in December 2018. Rent expense recognition commenced upon acceptance of the premises in January 2018.

The Company has assigned a lease agreement on a leased property to a third party and is contingently liable should the assignee default on future lease obligations through the November 2020 lease termination date. The aggregate amount of the future lease obligation under this arrangement is approximately \$0.6 million as of September 30, 2018.

### *Legal*

In the normal course of business, the Company and its subsidiaries included in the consolidated financial statements may be involved in various lawsuits, proceedings and regulatory examinations. The Company assesses its liabilities and contingencies in connection with outstanding legal proceedings, if any, utilizing the latest information available. For matters where it is probable that the Company will incur a material loss and the amount can be reasonably estimated, the Company will establish an accrual for the loss. Once established, the accrual will be adjusted to reflect any relevant developments. When a loss contingency is not both probable and estimable, the Company does not establish an accrual.

Based on currently available information, the outcome of the Company's outstanding matters is not expected to have a material adverse impact on the Company's financial position. It is not presently possible to determine the ultimate exposure to these matters and there is no assurance that the resolution of the outstanding matters will not significantly exceed any reserves accrued by the Company.

## Other

The Company, through two regulated subsidiaries, executes certain bond transactions between and among institutional investor and broker-dealer clients on a matched principal basis by serving as counterparty to both the buyer and the seller in trades which settle through third-party clearing brokers. Settlement typically occurs within one to two trading days after the trade date. Cash settlement of the transaction occurs upon receipt or delivery of the underlying instrument that was traded. Under securities clearing agreements with third party clearing brokers, the Company maintains collateral deposits with each clearing broker in the form of cash. The amount of the collateral deposits included in prepaid expenses and other assets in the Consolidated Statements of Financial Condition was \$1.2 million as of both September 30, 2018 and 2017. The Company is exposed to credit risk in the event a counterparty does not fulfill its obligation to complete a transaction or if there is a miscommunication or other error in executing a matched principal transaction. Pursuant to the terms of the securities clearing agreements, each third-party clearing broker has the right to charge the Company for any losses they suffer resulting from a counterparty's failure on any of the Company's trades. The Company did not record any liabilities or losses with regard to this right for the nine months ended September 30, 2018 and 2017.

In the normal course of business, the Company enters into contracts that contain a variety of representations, warranties and indemnification provisions. The Company's maximum exposure under these arrangements is unknown, as this would involve future claims that may be made against the Company that have not yet occurred. However, based on experience, the Company expects the risk of loss to be remote.

## 11. Share Repurchase Program

In September 2017, the Board of Directors authorized a new fifteen-month share repurchase program for up to \$100.0 million commencing in October 2017. For the nine months ended September 30, 2018, the Company repurchased 93,900 shares of common stock at a cost of \$19.0 million. Shares repurchased under the program will be held in treasury for future use.

## 12. Segment and Geographic Information

The Company operates an electronic platform for the trading of fixed-income securities and provides related data, analytics, compliance tools and post-trade services. The Company considers its operations to constitute a single business segment because of the highly integrated nature of these product and services, the financial markets in which the Company competes and the Company's worldwide business activities. The Company believes that results by geographic region or client sector are not necessarily meaningful in understanding its business.

For the nine months ended September 30, 2018 and 2017, the U.K. was the only individual foreign country in which the Company had a subsidiary that accounted for 10% or more of the total revenues or total long-lived assets of the Company. Revenues and long-lived assets are attributed to a geographic area based on the location of the particular subsidiary. Long-lived assets are defined as furniture, equipment, leasehold improvements and capitalized software. Information regarding revenue for the three and nine months ended September 30, 2018 and 2017 and long-lived assets as of September 30, 2018 and December 31, 2017 was as follows:

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
	<b>(In thousands)</b>			
Revenues				
United States	\$ 85,110	\$ 80,999	\$ 271,833	\$ 249,538
United Kingdom	15,882	14,210	49,828	44,181
Other	451	375	1,460	1,143
Total	<u>\$ 101,443</u>	<u>\$ 95,584</u>	<u>\$ 323,121</u>	<u>\$ 294,862</u>

	As of	
	September 30, 2018	December 31, 2017
(In thousands)		
Long-lived assets, as defined		
United States	\$ 45,734	\$ 27,990
United Kingdom	8,564	10,532
Other	22	26
Total	<u>\$ 54,320</u>	<u>\$ 38,548</u>

### 13. Retirement and Deferred Compensation Plans

The Company offers a non-qualified deferred cash incentive plan to certain officers and other employees. Under the plan, eligible employees may defer up to 100% of their annual cash incentive pay. The Company has elected to fund its deferred compensation obligations through a rabbi trust. The rabbi trust is subject to creditor claims in the event of insolvency but such assets are not available for general corporate purposes. Assets held in the rabbi trust are invested in mutual funds, as selected by the participants, which are designated as trading securities and carried at fair value. As of September 30, 2018 and 2017, the fair value of the mutual fund investments and deferred compensation obligations were \$4.5 million and \$3.1 million, respectively. Changes in the fair value of securities held in the rabbi trust and offsetting increases or decreases in the deferred compensation obligation are recognized in other, net in the Company's Consolidated Statements of Operations. For the nine months ended September 30, 2018 and 2017, the trading gains or losses and changes in deferred compensation liability and expense were \$0.1 million and \$0.3 million, respectively.

## Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

### Forward-Looking Statements

*This report contains certain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements may be identified by words such as "expects," "intends," "anticipates," "plans," "believes," "seeks," "estimates," "will," or words of similar meaning and include, but are not limited to, statements regarding the outlook for our future business and financial performance. Forward-looking statements are based on management's current expectations and assumptions, which are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. It is routine for our internal projections and expectations to change as the year or each quarter in the year progresses, and therefore it should be clearly understood that the internal projections and beliefs upon which we base our expectations may change prior to the end of each quarter or the year. Although these expectations may change, we are under no obligation to revise or update any forward-looking statements contained in this report. Our company policy is generally to provide our expectations only once per quarter, and not to update that information until the next quarter. Actual future events or results may differ, perhaps materially from those contained in the projections or forward-looking statements. Factors that could cause or contribute to such differences include those discussed below and elsewhere in this report, particularly in the section captioned Part II, Item 1A, "Risk Factors."*

### Executive Overview

MarketAxess operates a leading electronic trading platform that enables fixed-income market participants to efficiently trade corporate bonds and other types of fixed-income instruments using our patented trading technology. Over 1,400 institutional investor and broker-dealer firms are active users of our trading platform, accessing global liquidity in U.S. high-grade corporate bonds, emerging markets and high-yield bonds, European bonds, U.S. agency bonds, municipal bonds, credit default swaps and other fixed-income securities. Through our Open Trading™ protocols, we execute trades in certain bonds between and among institutional investor and broker-dealer clients in an all-to-all trading environment on a matched principal basis. We also offer a number of trading-related products and services, including: market data to assist clients with trading decisions; connectivity solutions that facilitate straight-through processing; technology services to optimize trading environments; and execution services for exchange-traded fund managers and other clients. Through our Trax® division, we also offer a range of pre- and post-trade services, including trade matching, trade publication, regulatory transaction reporting, and market and reference data across a range of fixed-income and other products.

Our platform's innovative technology solutions are designed to increase the number of potential trading counterparties on our electronic trading platform and create a menu of solutions to address different trade sizes and bond liquidity characteristics. Our traditional request-for-quote model allows our institutional investor clients to simultaneously request competing, executable bids or offers from our broker-dealer clients and execute trades with the broker-dealer of their choice from among those that choose to respond. Our Open Trading™ protocols complement our request-for-quote model by exponentially increasing the number of potential counterparties and improving liquidity by allowing all participants to interact anonymously in an all-to-all trading environment. Our platform also provides our broker-dealer clients a solution that enables them to efficiently reach our institutional investor clients for the distribution and trading of bonds.

The majority of our revenues are derived from commissions for trades executed on our platform and distribution fees that are billed to our broker-dealer clients on a monthly basis. We also derive revenues from information and post-trade services, technology products and services and other revenues. Our expenses consist of employee compensation and benefits, depreciation and amortization, technology and communication expenses, professional and consulting fees, occupancy, marketing and advertising and other general and administrative expenses.

Our objective is to provide the leading global electronic trading platform for fixed-income securities, connecting broker-dealers and institutional investors more easily and efficiently, while offering a broad array of information, trading and technology services to market participants across the trading cycle. The key elements of our strategy are:

- to innovate and efficiently add new functionality and product offerings to the MarketAxess platform that we believe will help to increase our market share with existing clients, as well as to expand our client base;
- to leverage our existing client network and technology to exponentially increase the number of potential counterparties and improve liquidity by developing and deploying a wide range of all-to-all electronic trading protocols in our Open Trading™ environment to complement our traditional request-for-quote model;
- to leverage our existing technology and client relationships to deploy our electronic trading platform into additional product areas within the fixed-income securities markets and deliver fixed-income securities-related technical services and products;

- to continue building our existing service offerings so that our electronic trading platform is more fully integrated into the workflow of our broker-dealer and institutional investor clients and to continue to add functionality to allow our clients to achieve a fully automated end-to-end straight-through processing solution (automation from trade initiation to settlement);
- to add new content and analytical capabilities to BondTicker® and expand Axxess All®, the first intra-day trade tape for the European fixed-income market, and our other data service offerings provided by Trax® to improve the value of the information we provide to our clients; and
- to continue to increase and supplement our internal growth by entering into strategic alliances, or acquiring businesses or technologies that will enable us to enter new markets, provide new products or services, or otherwise enhance the value of our platform to our clients.

## **Critical Factors Affecting Our Industry and Our Company**

### ***Economic, Political and Market Factors***

The global fixed-income securities industry is risky and volatile and is directly affected by a number of economic, political and market factors that may result in declining trading volume. These factors could have a material adverse effect on our business, financial condition and results of operations. These factors include, among others, credit market conditions, the current interest rate environment, including the volatility of interest rates and investors' forecasts of future interest rates, economic and political conditions in the United States, Europe and elsewhere, and the consolidation or contraction of our broker-dealer and institutional investor clients.

### ***Competitive Landscape***

The global fixed-income securities industry generally, and the electronic financial services markets in which we engage in particular, are highly competitive, and we expect competition to intensify in the future. Sources of competition for us will continue to include, among others, bond trading conducted directly between broker-dealers and their institutional investor clients over the telephone or electronically and other multi-dealer or all-to-all trading platforms. Competitors, including companies in which some of our broker-dealer clients have invested, have developed or acquired electronic trading platforms or have announced their intention to explore the development of electronic platforms or information networks that may compete with us.

In general, we compete on the basis of a number of key factors, including, among others, the liquidity provided on our platform, the magnitude and frequency of price improvement enabled by our platform, total transaction costs and the quality and speed of execution. We believe that our ability to grow volumes and revenues will largely depend on our performance with respect to these factors.

Our competitive position is also enhanced by the familiarity and integration of our broker-dealer and institutional investor clients with our electronic trading platform and other systems. We have focused on the unique aspects of the credit markets we serve in the development of our platform, working closely with our clients to provide a system that is suited to their needs.

### ***Regulatory Environment***

Our industry has been and is subject to continuous regulatory changes and may become subject to new regulations or changes in the interpretation or enforcement of existing regulations, which could require us to incur significant costs.

Following the global financial crisis and other recent events in the financial industry, governments and regulators in both the United States and Europe called for increased regulation and transparency in the over-the-counter markets. As a result, the Dodd-Frank Act was enacted in 2010 and, among other things, mandated the clearing of certain derivative instruments ("swaps") through regulated central clearing organizations and mandatory trading of those instruments through either regulated exchanges or swap execution facilities ("SEFs"), in each case, subject to certain key exceptions.

Various rules promulgated since the financial crisis have adversely affected our bank-affiliated broker-dealer clients' ability to make markets in a variety of fixed-income securities, which could negatively impact the level of liquidity and pricing available on our trading platform. For example, while the Volcker Rule does not apply directly to us, the Volcker Rule bans proprietary trading by banks and their affiliates. In addition, enhanced leverage ratios applicable to large banking organizations in the U.S. and Europe require such organizations to strengthen their balance sheets and may limit their ability or willingness to make markets on our trading platform.

Since the presidential election in November 2016, however, the U.S. has pursued a path of financial deregulation and has rolled back certain provisions of the Dodd-Frank Act. There has also been a growing focus on U.S. capital markets regulations as the U.S. Department of the Treasury issued a report with recommendations to improve corporate bond liquidity and the regulations that implement the Volcker Rule. In 2017, the SEC established a Fixed Income Market Structure Advisory Committee in order to provide the SEC with diverse perspectives on the structure and operations of the U.S. fixed income markets, as well as advice and recommendations on matters related to fixed income market structure.

In Europe, Markets in Financial Instruments Directive (“MiFID II”) and Markets in Financial Instruments Regulation (“MiFIR”) were implemented in January 2018 and introduced significant changes in market structure designed to: (i) enhance pre- and post-trade transparency for fixed income instruments with the scope of requirements calibrated for liquidity, (ii) increase and enhance post-trade reporting obligations with a requirement to submit post-trade data to an Approved Reporting Mechanism (“ARM”), (iii) ensure trading of certain derivatives occurs on regulated trading venues and (iv) establish a consolidated tape for trade data. MiFID II has caused us to expend significantly more compliance, business and technology resources, incur additional operational costs and create additional regulatory exposure for our trading and post-trade services businesses. While we generally believe the net impact of the rules and regulations may be positive for our businesses, unintended consequences of the rules and regulations may adversely affect us in ways yet to be determined.

In March 2017, the U.K. notified the European Council of its intention to leave the European Union (“E.U.”) (commonly referred to as “Brexit”). By invoking Article 50 of the Lisbon Treaty, the U.K. is currently set to leave the E.U. in March 2019. Subject to the terms, if any, agreed between E.U. member states and the U.K. as part of the exit negotiations, our U.K. subsidiaries will not be able to rely on the existence of a “passporting” regime that allows immediate access to the single E.U. market. Accordingly, we have begun the process of establishing one or more new regulated subsidiaries in the E.U. in order to provide our trading platform and certain post-trade services to clients in the E.U. following Brexit.

We cannot predict the extent to which these, or any other future regulatory changes, may adversely affect our business and operations.

### ***Rapid Technological Changes***

We must continue to enhance and improve our electronic trading platform. The electronic financial services industry is characterized by increasingly complex systems and infrastructures and new business models. Our future success will depend on our ability to enhance our existing products and services, develop and/or license new products and technologies that address the increasingly sophisticated and varied needs of our existing and prospective broker-dealer and institutional investor clients and respond to technological advances and emerging industry standards and practices on a cost-effective and timely basis. We have been issued 13 patents covering our most significant trading protocols and other aspects of our trading system technology.

### **Trends in Our Business**

The majority of our revenues are derived from commissions for transactions executed on our platform between and among our institutional investor and broker-dealer clients and monthly distribution fees. We believe that there are five key variables that impact the notional value of such transactions on our platform and the amount of commissions and distribution fees earned by us:

- the number of participants on our platform and their willingness to originate transactions through the platform;
- the number of institutional investor and broker-dealer clients on the platform and the frequency and competitiveness of the price responses they provide on our platform;
- the number of markets for which we make trading available to our clients;
- the overall level of activity in these markets; and
- the level of commissions that we collect for trades executed through the platform.

We believe that overall corporate bond market trading volume is affected by various factors including the absolute levels of interest rates, the direction of interest rate movements, the level of new issues of corporate bonds and the volatility of corporate bond spreads versus U.S. Treasury securities. Because a significant percentage of our revenue is tied directly to the volume of securities traded on our platform, it is likely that a general decline in trading volumes, regardless of the cause of such decline, would reduce our revenues and have a significant negative impact on profitability.

### ***Commission Revenue***

Commissions are generally calculated as a percentage of the notional dollar volume of bonds traded on our platform and vary based on the type, size, yield and maturity of the bond traded. Under our disclosed trading transaction fee plans, bonds that are more actively traded or that have shorter maturities are generally charged lower commissions, while bonds that are less actively traded or that have longer maturities generally command higher commissions.

For trades that we execute between and among institutional investor and broker-dealer clients on a matched principal basis by serving as counterparty to both the buyer and the seller, we earn our commission through the difference in price between the two trades. Distribution fees include any unused monthly fee commitments under our variable fee plans.

*U.S. High-Grade Corporate Bond Commissions.* Our U.S. high-grade corporate bond fee plans generally incorporate variable transaction fees and fixed distribution fees billed to our broker-dealer clients on a monthly basis. Certain dealers participate in fee programs that do not contain monthly distribution fees and instead incorporate additional per transaction execution fees and minimum monthly fee commitments. Under these fee plans, we electronically add the transaction fee to the spread quoted by the broker-dealer client. The U.S. high-grade transaction fee is generally designated in basis points in yield and, as a result, is subject to fluctuation depending on the duration of the bond traded. The average U.S. high-grade fees per million may vary in the future due to changes in yield, years-to-maturity and nominal size of bonds traded on our platform.

*Other Credit Commissions.* Other credit includes Eurobonds, emerging markets bonds, high-yield bonds and municipal bonds. Commissions for other credit products generally vary based on the type of the instrument traded using standard fee schedules. During the third quarter of 2017, we changed our high-yield fee plan structure. Similar to our U.S. high-grade fee plans, certain dealers now participate in a high-yield fee plan that incorporates a variable transaction fee and fixed distribution fee, while other dealers participate in a plan that does not contain monthly distribution fees and instead incorporates additional per transaction execution fees and minimum monthly fee commitments.

*Liquid Products Commissions.* Liquid products includes U.S. agency, European government bonds and credit derivatives. Commissions for liquid products generally vary based on the type of the instrument traded using standard fee schedules.

We anticipate that average fees per million may change in the future. Consequently, past trends in commissions are not necessarily indicative of future commissions.

### ***Information Services***

We generate revenue from data licensed to our broker-dealer clients, institutional investor clients and data-only subscribers; professional consulting services; technology software licenses; and maintenance and support services. Information services are invoiced monthly, quarterly or annually. Revenues from information services are recognized in the period the services are provided. When billed in advance, information service revenues are deferred and recognized monthly on a straight-line basis. Revenue from professional and consulting services are recognized as services are performed and software license subscription revenue and maintenance and support services are recognized ratably over the period.

### ***Post-trade Services***

We generate revenue from regulatory transaction reporting, trade publication and trade matching services. Revenues are recognized in the period the services are provided.

### ***Other Revenue***

Other revenue includes revenue generated from telecommunications line charges to broker-dealer clients.



## **Expenses**

In the normal course of business, we incur the following expenses:

*Employee Compensation and Benefits.* Employee compensation and benefits is our most significant expense and includes employee salaries, stock-based compensation costs, other incentive compensation, employee benefits and payroll taxes.

*Depreciation and Amortization.* We depreciate our computer hardware and related software, office hardware and furniture and fixtures and amortize our capitalized software development costs on a straight-line basis over three to seven years. We amortize leasehold improvements on a straight-line basis over the lesser of the life of the improvement or the remaining term of the lease. Intangible assets with definite lives, including purchased technologies, customer relationships and other intangible assets, are amortized over their estimated useful lives, ranging from three to 15 years. Intangible assets are assessed for impairment when events or circumstances indicate a possible impairment.

*Technology and Communications.* Technology and communications expense consists primarily of costs relating to maintenance on software and hardware, our internal network connections, data center hosting costs and data feeds provided by outside vendors or service providers. The majority of our broker-dealer clients have dedicated high-speed communication lines to our network in order to provide fast data transfer. We charge our broker-dealer clients a monthly fee for these connections, which is recovered against the relevant expenses we incur.

*Professional and Consulting Fees.* Professional and consulting fees consist primarily of accounting fees, legal fees and fees paid to information technology and other consultants for services provided for the maintenance of our trading platform, information and post-trade services products and other services.

*Occupancy.* Occupancy costs consist primarily of office and equipment rent, utilities and commercial rent tax.

*Marketing and Advertising.* Marketing and advertising expense consists primarily of print and other advertising expenses we incur to promote our products and services. This expense also includes costs associated with attending or exhibiting at industry-sponsored seminars, conferences and conventions, and travel and entertainment expenses incurred by our sales force to promote our trading platform and information and post-trade services.

*Clearing Costs.* Clearing costs consist of fees that we are charged by third-party clearing brokers for the clearing and settlement of matched principal trades.

*General and Administrative.* General and administrative expense consists primarily of general travel and entertainment, board of directors' expenses, charitable contributions, provision for doubtful accounts and various state franchise and U.K. value-added taxes.

Expenses may grow in the future, notably in employee compensation and benefits, primarily due to investment in new products and geographic expansion. Occupancy expense has also increased during the nine months ended September 30, 2018 as a result of the new office space for our global headquarters in New York City. See Item 2 of the Annual Report on Form 10-K, as amended, for the year ended December 31, 2017 for a discussion of our properties.

## **Other Income (Expense)**

*Investment Income.* Investment income consists of income earned on our investments.

*Other, Net.* Other, net consists of realized and unrealized gains or losses on trading security investments, foreign currency transaction gains (losses), investment advisory fees and other miscellaneous revenues and expenses.

## Critical Accounting Policies and Estimates

This Management's Discussion and Analysis of Financial Condition and Results of Operations discusses our Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States, also referred to as U.S. GAAP. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the reported amounts of income and expenses during the reporting periods. We base our estimates and judgments on historical experience and on various other factors that we believe are reasonable under the circumstances. Actual results may differ from these estimates under varying assumptions or conditions. Note 2 of the Notes to our Consolidated Financial Statements includes a summary of the significant accounting policies and methods used in the preparation of our Consolidated Financial Statements. Effective January 1, 2018, we adopted Revenue from Contracts with Customers ASU 2014-09 using the modified retrospective approach, which did not have a material impact on our Consolidated Financial Statements. There were no other significant changes to our critical accounting policies and estimates during the nine months ended September 30, 2018, as compared to those we disclosed in Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K, as amended, for the year ended December 31, 2017.

## Recent Accounting Pronouncements

See Note 2 to the Consolidated Financial Statements for a discussion on recent accounting pronouncements.

## Segment Results

We operate an electronic platform for the trading of fixed-income securities and provide related data, analytics, compliance tools and post-trade services. We consider our operations to constitute a single business segment because of the highly integrated nature of these product and services, the financial markets in which we compete and our worldwide business activities. We believe that results by geographic region or client sector are not necessarily meaningful in understanding our business. See Note 12 to the Consolidated Financial Statements for certain geographic information about our business required by U.S. GAAP.

## Results of Operations

### *Three Months Ended September 30, 2018 Compared to Three Months Ended September 30, 2017*

#### *Overview*

Total revenues increased by \$5.8 million or 6.1% to \$101.4 million for the three months ended September 30, 2018, from \$95.6 million for the three months ended September 30, 2017. This increase in total revenues was primarily due to higher commissions of \$4.2 million, information services of \$0.8 million and post-trade services revenues of \$0.8 million.

Total expenses increased by \$6.1 million or 12.4% to \$55.0 million for the three months ended September 30, 2018, from \$48.9 million for the three months ended September 30, 2017. This increase was primarily due to higher occupancy costs of \$1.7 million, depreciation and amortization of \$1.6 million, marketing and advertising costs of \$0.9 million, technology and communication costs of \$0.8 million and employee compensation and benefits of \$0.8 million.

Total other income increased by \$0.8 million to \$1.4 million for the three months ended September 30, 2018, from \$0.6 million for the three months ended September 30, 2017. This increase was primarily due to an increase in investment income of \$0.7 million.

Income before taxes increased by \$0.6 million or 1.2% to \$47.8 million for the three months ended September 30, 2018, from \$47.2 million for the three months ended September 30, 2017. Net income increased by \$4.5 million or 13.1% to \$38.6 million for the three months ended September 30, 2018, from \$34.1 million for the three months ended September 30, 2017.

## Revenues

Our revenues for the three months ended September 30, 2018 and 2017, and the resulting dollar and percentage changes, were as follows:

	Three Months Ended September 30,					
	2018		2017		\$ Change	% Change
	\$	% of Revenues	\$	% of Revenues		
	(\$ in thousands)					
Commissions	\$ 90,513	89.2 %	\$ 86,270	90.3 %	\$ 4,243	4.9 %
Information services	7,174	7.1	6,331	6.6	843	13.3
Post-trade services	3,475	3.4	2,678	2.8	797	29.8
Other	281	0.3	305	0.3	(24)	(7.9)
Total revenues	<u>\$ 101,443</u>	100.0 %	<u>\$ 95,584</u>	100.0 %	<u>\$ 5,859</u>	6.1 %

*Commissions.* Our commission revenues for the three months ended September 30, 2018 and 2017, and the resulting dollar and percentage changes, were as follows:

	Three Months Ended September 30,			
	2018	2017	\$ Change	% Change
	(\$ in thousands)			
Variable transaction fees				
U.S. high-grade	\$ 32,385	\$ 34,020	\$ (1,635)	(4.8) %
Other credit	33,088	31,381	1,707	5.4
Liquid products	482	546	(64)	(11.7)
Total variable transaction fees	<u>65,955</u>	<u>65,947</u>	<u>8</u>	0.0
Distribution fees				
U.S. high-grade	18,032	16,305	1,727	10.6
Other credit	6,385	3,842	2,543	66.2
Liquid products	141	176	(35)	(19.9)
Total distribution fees	<u>24,558</u>	<u>20,323</u>	<u>4,235</u>	20.8
Total commissions	<u>\$ 90,513</u>	<u>\$ 86,270</u>	<u>\$ 4,243</u>	4.9 %

### Variable Transaction Fees

The following table shows the extent to which the increase in variable transaction fees for the three months ended September 30, 2018 was attributable to changes in transaction volumes and variable transaction fees per million:

	Change from the Three Months Ended September 30, 2017			
	U.S. High-Grade	Other Credit	Liquid Products	Total
	(\$ in thousands)			
Volume increase	\$ 879	\$ 7,797	\$ 14	\$ 8,690
Variable transaction fee per million decrease	(2,514)	(6,090)	(78)	(8,682)
Total (decrease) increase in variable commissions	<u>\$ (1,635)</u>	<u>\$ 1,707</u>	<u>\$ (64)</u>	<u>\$ 8</u>

Our trading volumes for the three months ended September 30, 2018 and 2017 were as follows:

	<b>Three Months Ended September 30,</b>			
	<b>2018</b>	<b>2017</b>	<b>\$ Change</b>	<b>% Change</b>
(\$ in millions)				
<b>Trading Volume Data</b>				
U.S. high-grade - fixed rate	\$ 191,950	\$ 192,092	\$ (142)	(0.1) %
U.S. high-grade - floating rate	14,066	8,734	5,332	61.0
Total U.S. high grade	206,016	200,826	5,190	2.6
Other credit	166,990	133,757	33,233	24.8
Liquid products	12,505	12,189	316	2.6
Total	<u>\$ 385,511</u>	<u>\$ 346,772</u>	<u>\$ 38,739</u>	11.2 %
Number of U.S. Trading Days	63	63		
Number of U.K. Trading Days	64	64		

For volume reporting purposes, transactions in foreign currencies are converted to U.S. dollars at average monthly rates. The 2.6% increase in our U.S. high-grade volume was principally due to an increase in estimated market share as reported by Financial Industry Regulatory Authority (“FINRA”) Trade Reporting and Compliance Engine (“TRACE”). Our estimated market share of total U.S. high-grade corporate bond volume increased to 17.5% for the three months ended September 30, 2018 from 17.2% for the three months ended September 30, 2017.

Other credit volumes increased by 24.8% for the three months ended September 30, 2018 compared to the three months ended September 30, 2017, primarily due to increases of 28.4% in Eurobond volume, 27.4% in high-yield bond volume and 22.0% in emerging markets bond volume. Liquid products volume (excluding credit derivatives) increased by 2.6% for the three months ended September 30, 2018 compared to the three months ended September 30, 2017, due mainly to an increase in our estimated market share in U.S. agency bond market volume as reported by TRACE.

Our average variable transaction fee per million for the three months ended September 30, 2018 and 2017 was as follows:

	<b>Three Months Ended September 30,</b>	
	<b>2018</b>	<b>2017</b>
<b>Average Variable Transaction fee per million</b>		
U.S. high-grade - fixed rate	\$ 162	\$ 174
U.S. high-grade - floating rate	91	67
Total U.S. high-grade	157	169
Other credit	198	235
Liquid products	39	45
Total	171	190

Total U.S. high-grade average variable transaction fee per million decreased to \$157 per million for the three months ended September 30, 2018 from \$169 per million for the three months ended September 30, 2017, mainly due to a decrease in the duration of bonds traded and the migration of certain of our broker-dealer clients from an all-variable fee plan to a plan that incorporates a monthly distribution fee. Other credit average variable transaction fee per million decreased to \$198 per million for the three months ended September 30, 2018 from \$235 million for the three months ended September 30, 2017, mainly due to a decrease in high-yield average variable fee per million as a result of the change in the structure of our high-yield fee plan options implemented in August 2017, Eurobond fee schedule reductions implemented effective January 1, 2018 and a larger percentage of trading volume in emerging market bonds that command lower fees per million.

### Distribution Fees

U.S. high-grade distribution fees increased \$1.7 million principally due to the migration of certain of our broker-dealer clients from an all-variable fee plan to a plan that incorporates a monthly distribution fee. The \$2.5 million increase in Other credit distribution fees principally relates to distribution fees under the high-yield fee plan structure implemented in August 2017 and a \$0.8 million increase in unused monthly fee commitments.

*Information Services.* Information services revenue increased \$0.8 million for the three months ended September 30, 2018 principally due to new data contracts.

*Post-Trade Services.* Post-trade services revenue increased \$0.8 million for the three months ended September 30, 2018 principally due to an increase of \$0.9 million in trade publication services revenue and \$0.2 million in regulatory transaction reporting services revenue, offset by a decrease of \$0.3 million related to MiFID II implementation services. Our transaction reporting business processed 218 million transactions for the three months ended September 30, 2018 compared to 247 million for the three months ended September 30, 2017. Revenue from new customers and services and changes in pricing plans more than offset the decline in revenue related to the decreased number of reported transactions.

*Other.* Other revenue was \$0.3 million for each of the three months ended September 30, 2018 and 2017, respectively.

### Expenses

Our expenses for the three months ended September 30, 2018 and 2017, and the resulting dollar and percentage changes, were as follows:

	Three Months Ended September 30,					
	2018		2017		\$ Change	% Change
	\$	% of Revenues	\$	% of Revenues		
	(\$ in thousands)					
<b>Expenses</b>						
Employee compensation and benefits	\$ 26,282	25.9 %	\$ 25,485	26.7 %	\$ 797	3.1 %
Depreciation and amortization	6,173	6.1	4,583	4.8	1,590	34.7
Technology and communications	5,879	5.8	5,035	5.3	844	16.8
Professional and consulting fees	5,685	5.6	5,547	5.8	138	2.5
Occupancy	3,528	3.5	1,795	1.9	1,733	96.5
Marketing and advertising	2,980	2.9	2,089	2.2	891	42.7
Clearing costs	1,760	1.7	1,476	1.5	284	19.2
General and administrative	2,744	2.7	2,939	3.1	(195)	(6.6)
Total expenses	\$ 55,031	54.2 %	\$ 48,949	51.3 %	\$ 6,082	12.4 %

*Employee Compensation and Benefits.* Employee compensation and benefits increased by \$0.8 million, primarily due to an increase in salaries, taxes and benefits of \$0.7 million, principally as a result of higher employee headcount.

*Depreciation and Amortization.* Depreciation and amortization increased by \$1.6 million primarily due to higher amortization of software development costs of \$0.5 million, depreciation of software licenses of \$0.5 million and production hardware of \$0.4 million. For the three months ended September 30, 2018 and 2017, \$7.8 million and \$1.5 million, respectively, of equipment purchases and leasehold improvements and \$2.6 million and \$3.4 million, respectively, of software development costs were capitalized. For the three months ended September 30, 2018 we incurred capital expenditures of \$4.2 million related to the build-out of our new headquarters in New York City.

*Technology and Communications.* Technology and communications expenses increased by \$0.8 million primarily due to higher market data costs of \$0.5 million, software subscription costs of \$0.1 million and technology maintenance and support costs of \$0.1 million.

*Professional and Consulting Fees.* Professional and consulting fees increased by \$0.1 million primarily due to higher recruiting fees.

*Occupancy.* Occupancy increased by \$1.7 million primarily due to duplicate rent expense of \$1.9 million during the build-out phase of our new headquarters in New York City offset by a reduction in non-recurring lease expense of \$0.3 million. We expect to relocate to the new premises in December 2018.

*Marketing and Advertising.* Marketing and advertising expenses increased by \$0.9 million primarily due to higher advertising costs of \$0.7 million.

*Clearing Costs.* Clearing costs increased by \$0.3 million primarily due to higher Open Trading™ volume. Third-party clearing costs as a percentage of matched principal trading revenue decreased from 13.1% to 10.8% as a result of volume-based rebates.

*General and Administrative.* General and administrative expenses decreased by \$0.2 million for the three months ended September 30, 2018.

*Other Income (Expense)*

Our other income for the three months ended September 30, 2018 and 2017, and the resulting dollar and percentage changes, were as follows:

	Three Months Ended September 30,					
	2018		2017			
	(\$ in thousands)					
	\$	% of Revenues	\$	% of Revenues	\$ Change	% Change
Investment income	\$ 1,635	1.6 %	\$ 964	1.0 %	\$ 671	69.6 %
Other, net	(250)	(0.2)	(382)	(0.4)	132	(34.6)
Total other income	<u>\$ 1,385</u>	1.4 %	<u>\$ 582</u>	0.6 %	<u>\$ 803</u>	138.0 %

Investment income increased by \$0.7 million primarily due to higher investment balances and an increase in interest rates in 2018.

*Provision for Income Tax.* On December 22, 2017, the Tax Act was enacted into law. The Tax Act significantly revised the U.S. corporate income tax regime by, among other things, lowering the U.S. federal corporate income tax rate from 35% to 21%, implementing a territorial tax system and imposing a repatriation tax on deemed earnings of foreign subsidiaries. We have made a reasonable estimate of the impact of the Tax Act and recorded a provisional tax charge in 2017 of \$11.7 million, composed of \$6.7 million to re-measure U.S. deferred tax assets and \$5.0 million for the repatriation tax on accumulated undistributed foreign earnings. During the three months ended September 30, 2018, we reduced the provisional tax charge by \$0.4 million as a result of new regulatory guidance and changes in interpretations and assumptions made by us. The final impact of the Tax Act may differ materially from the revised provisional tax charge as a result of, among other things, changes in interpretations and assumptions we have made, guidance that may be issued by the U.S. Department of the Treasury and actions we may take as a result of the Tax Act.

Our consolidated effective tax rate for the three months ended September 30, 2018 was 19.3%, compared to 27.7% for the three months ended September 30, 2017. The tax provision for the three months ended September 30, 2018 reflected a reduction in the federal corporate income tax rate and other changes associated with the Tax Act, including the \$0.4 million reduction to the provisional tax charge, and \$1.7 million of excess tax benefits related to share-based compensation awards that vested or were exercised during the quarter. The income tax provision for the three months ended September 30, 2017 included \$3.8 million of excess tax benefits related to share-based compensation awards. Our consolidated effective tax rate can vary from period to period depending on the geographic mix of our earnings, changes in tax legislation and tax rates and the amount and timing of excess tax benefits related to share-based payments, among other factors.

***Nine Months Ended September 30, 2018 Compared to Nine Months Ended September 30, 2017***

*Overview*

Total revenues increased by \$28.3 million or 9.6% to \$323.1 million for the nine months ended September 30, 2018, from \$294.9 million for the nine months ended September 30, 2017. This increase in total revenues was primarily due to higher commissions of \$22.1 million, post-trade services revenues of \$4.0 million and information services of \$2.2 million. A 5.3% increase in the average foreign currency exchange rate of the British Pound Sterling compared to the U.S. dollar from the nine months ended September 30, 2017 to the nine months ended September 30, 2018 had the effect of increasing revenues by \$2.1 million.

Total expenses increased by \$20.4 million or 14.2% to \$164.5 million for the nine months ended September 30, 2018, from \$144.1 million for the nine months ended September 30, 2017. This increase was primarily due to higher occupancy costs of \$5.7 million, employee compensation and benefits of \$3.2 million, depreciation and amortization of \$3.2 million, technology and communications expenses of \$3.0 million and professional and consulting fees of \$2.3 million. The change in the average foreign currency exchange rate had the effect of increasing expenses by \$2.1 million for the nine months ended September 30, 2018.

Income before taxes increased by \$9.6 million or 6.3% to \$162.0 million for the nine months ended September 30, 2018, from \$152.4 million for the nine months ended September 30, 2017. Net income increased by \$12.4 million or 10.8% to \$127.0 million for the nine months ended September 30, 2018, from \$114.6 million for the nine months ended September 30, 2017.

*Revenues*

Our revenues for the nine months ended September 30, 2018 and 2017, and the resulting dollar and percentage changes, were as follows:

	Nine Months Ended September 30,					
	2018		2017		\$ Change	% Change
	\$	% of Revenues	\$	% of Revenues		
	(\$ in thousands)					
Commissions	\$ 289,398	89.6 %	\$ 267,307	90.7 %	\$ 22,091	8.3 %
Information services	21,170	6.6	19,013	6.4	2,157	11.3
Post-trade services	11,671	3.5	7,623	2.6	4,048	53.1
Other	882	0.3	919	0.3	(37)	(4.0)
Total revenues	<u>\$ 323,121</u>	100.0 %	<u>\$ 294,862</u>	100.0 %	<u>\$ 28,259</u>	9.6 %

*Commissions.* Our commission revenues for the nine months ended September 30, 2018 and 2017, and the resulting dollar and percentage changes, were as follows:

	Nine Months Ended September 30,			
	2018	2017	\$ Change	% Change
	(\$ in thousands)			
Variable transaction fees				
U.S. high-grade	\$ 107,553	\$ 102,411	\$ 5,142	5.0 %
Other credit	108,280	110,221	(1,941)	(1.8)
Liquid products	1,553	1,746	(193)	(11.1)
Total variable transaction fees	<u>217,386</u>	<u>214,378</u>	<u>3,008</u>	1.4
Distribution fees				
U.S. high-grade	53,520	47,985	5,535	11.5
Other credit	17,967	4,506	13,461	298.7
Liquid products	525	438	87	19.9
Total distribution fees	<u>72,012</u>	<u>52,929</u>	<u>19,083</u>	36.1
Total commissions	<u>\$ 289,398</u>	<u>\$ 267,307</u>	<u>\$ 22,091</u>	8.3 %

### Variable Transaction Fees

The following table shows the extent to which the increase in variable transaction fees for the nine months ended September 30, 2018 was attributable to changes in transaction volumes and variable transaction fees per million:

	Change from the Nine Months Ended September 30, 2017			
	U.S. High-Grade	Other Credit	Liquid Products	Total
	(\$ in thousands)			
Volume increase (decrease)	\$ 10,460	\$ 26,812	\$ (73)	\$ 37,199
Variable transaction fee per million decrease	(5,318)	(28,753)	(120)	(34,191)
Total increase (decrease) in variable commissions	<u>\$ 5,142</u>	<u>\$ (1,941)</u>	<u>\$ (193)</u>	<u>\$ 3,008</u>

Our trading volumes for the nine months ended September 30, 2018 and 2017 were as follows:

	Nine Months Ended September 30,			
	2018	2017	\$ Change	% Change
	(\$ in millions)			
Trading Volume Data				
U.S. high-grade - fixed rate	\$ 643,781	\$ 599,783	\$ 43,998	7.3 %
U.S. high-grade - floating rate	43,739	24,024	19,715	82.1
Total U.S. high grade	687,520	623,807	63,713	10.2
Other credit	544,614	438,055	106,559	24.3
Liquid products	39,134	40,840	(1,706)	(4.2)
Total	<u>\$ 1,271,268</u>	<u>\$ 1,102,702</u>	<u>\$ 168,566</u>	15.3 %
Number of U.S. Trading Days	188	188		
Number of U.K. Trading Days	189	189		

For volume reporting purposes, transactions in foreign currencies are converted to U.S. dollars at average monthly rates. The 10.2% increase in our U.S. high-grade volume was principally due to an increase in our estimated market share of total U.S. high-grade corporate bond volume as reported by TRACE to 17.6% for the nine months ended September 30, 2018 from 16.7% for the nine months ended September 30, 2017, coupled with a 4.0% increase in overall market volume as measured by TRACE.

Other credit volumes increased by 24.3% for the nine months ended September 30, 2018 compared to the nine months ended September 30, 2017, primarily due to increases of 27.6% in emerging markets bond volume, 26.0% in Eurobond volume and 15.3% in high-yield bond volume. Liquid products volume (excluding credit derivatives) decreased by 4.2% for the nine months ended September 30, 2018 compared to the nine months ended September 30, 2017, due mainly to a 10.0% decrease in U.S. agency bond market volume as reported by TRACE.

Our average variable transaction fee per million for the nine months ended September 30, 2018 and 2017 was as follows:

	Nine Months Ended September 30,	
	2018	2017
Average Variable Transaction fee per million		
U.S. high-grade - fixed rate	\$ 161	\$ 168
U.S. high-grade - floating rate	94	62
Total U.S. high-grade	156	164
Other credit	199	252
Liquid products	40	43
Total	171	194



Total U.S. high-grade average variable transaction fee per million decreased to \$156 per million for the nine months ended September 30, 2018 from \$164 per million for the nine months ended September 30, 2017, mainly due to an increase in number of larger sized trades and the migration of certain of our broker-dealer clients from an all-variable fee plan to a plan that incorporates a monthly distribution fee. Other credit average variable transaction fee per million decreased to \$199 per million for the nine months ended September 30, 2018 from \$252 million for the nine months ended September 30, 2017, mainly due to a decrease in high-yield average variable fee per million as a result of the change in the structure of our high-yield fee plan options implemented in August 2017, Eurobond fee schedule reductions implemented effective January 1, 2018 and a larger percentage of trading volume in emerging market bonds that command lower fees per million.

#### *Distribution Fees*

U.S. high-grade distribution fees increased \$5.5 million principally due to the migration of certain of our broker-dealer clients from an all-variable fee plan to a plan that incorporates a monthly distribution fee. The \$13.5 million increase in Other credit distribution fees principally relates to a \$11.6 million increase in distribution fees under the high-yield fee plan structure implemented in August 2017 and a \$1.9 million increase in unused monthly fee commitments.

*Information Services.* Information services revenue increased by \$2.2 million for the nine months ended September 30, 2018 from the nine months ended September 30 2017. The increase is attributable to revenue from new data contracts of \$1.7 million and the positive impact of foreign exchange of \$0.5 million.

*Post-Trade Services.* Post-trade services revenue increased by \$4.0 million for the nine months ended September 30, 2018 from the nine months ended September 30, 2017 primarily due to higher trade publication services revenue of \$2.8 million, regulatory transaction reporting services revenue of \$0.7 million and the positive impact of foreign exchange of \$0.6 million. Our transaction reporting business processed 651 million transactions for the nine months ended September 30, 2018 compared to 770 million for the nine months ended September 30, 2017. Revenue from new customers and services and changes in pricing plans more than offset the decline in revenue related to the decreased number of reported transactions.

*Other.* Other revenue was \$0.9 million for each of the nine months ended September 30, 2018 and 2017, respectively.

#### *Expenses*

Our expenses for the nine months ended September 30, 2018 and 2017, and the resulting dollar and percentage changes, were as follows:

	<b>Nine Months Ended September 30,</b>					
	<b>2018</b>		<b>2017</b>		<b>\$</b>	<b>%</b>
	<b>\$</b>	<b>% of Revenues</b>	<b>\$</b>	<b>% of Revenues</b>		
<b>Expenses</b>	<b>(\$ in thousands)</b>					
Employee compensation and benefits	\$ 81,315	25.2 %	\$ 78,088	26.5 %	\$ 3,227	4.1 %
Depreciation and amortization	17,232	5.3	14,066	4.8	3,166	22.5
Technology and communications	17,451	5.4	14,442	4.9	3,009	20.8
Professional and consulting fees	16,168	5.0	13,912	4.7	2,256	16.2
Occupancy	10,332	3.2	4,621	1.6	5,711	123.6
Marketing and advertising	8,580	2.7	6,757	2.3	1,823	27.0
Clearing costs	5,497	1.7	4,320	1.5	1,177	27.2
General and administrative	7,927	2.5	7,878	2.7	49	0.6
Total expenses	<u>\$ 164,502</u>	51.0 %	<u>\$ 144,084</u>	49.0 %	<u>\$ 20,418</u>	14.2 %

*Employee Compensation and Benefits.* Employee compensation and benefits increased by \$3.2 million, primarily due to an increase in salaries, taxes and benefits of \$2.9 million, principally as a result of higher employee headcount.

*Depreciation and Amortization.* Depreciation and amortization increased by \$3.2 million primarily due to higher amortization of software development of \$1.5 million, depreciation of production hardware of \$0.8 million and software licenses of \$0.5 million. For the nine months ended September 30, 2018 and 2017, \$23.8 million and \$7.2 million, respectively, of equipment purchases and leasehold improvements and \$9.2 million and \$10.1 million, respectively, of software development costs were capitalized. For the nine months ended September 30, 2018 we incurred capital expenditures of \$13.9 million related to the build-out of our new headquarters in New York City.

*Technology and Communications.* Technology and communication expenses increased by \$3.0 million due to higher market data costs of \$1.0 million, software subscription costs of \$0.8 million and technology maintenance and support costs of \$0.7 million.

*Professional and Consulting Fees.* Professional and consulting fees increased by \$2.3 million primarily due to higher non-IT consulting fees of \$1.0 million, recruiting fees of \$0.7 million and technology consulting costs of \$0.5 million.

*Occupancy.* Occupancy costs increased by \$5.7 million primarily due to duplicate rent expense of \$5.3 million during the build-out phase of our new headquarters in New York City and the lease of additional office space to accommodate our increased headcount.

*Marketing and Advertising.* Marketing and advertising expenses increased by \$1.8 million primarily due to higher advertising costs of \$1.6 million.

*Clearing Costs.* Clearing costs increased by \$1.2 million primarily due to higher Open Trading™ volume. Third-party clearing costs as a percentage of matched principal trading revenue decreased from 12.5% to 12.2% as a result of volume-based rebates.

*General and Administrative.* General and administrative expenses were \$7.9 million for each of the nine months ended September 30, 2018 and September 30, 2017, respectively.

*Other Income (Expense)*

Our other income for the nine months ended September 30, 2018 and 2017, and the resulting dollar and percentage changes, were as follows:

	<b>Nine Months Ended September 30,</b>					
	<b>2018</b>			<b>2017</b>		
	(\$ in thousands)					
	\$	% of Revenues	\$	% of Revenues	\$ Change	% Change
Investment income	\$ 4,186	1.3 %	\$ 2,551	0.9 %	\$ 1,635	64.1 %
Other income, net	(785)	(0.2)	(932)	(0.3)	147	(15.8)
Total other income	<u>\$ 3,401</u>	1.1 %	<u>\$ 1,619</u>	0.5 %	<u>\$ 1,782</u>	110.1 %

Investment income increased by \$1.6 million primarily due to higher investment balances and an increase in interest rates in 2018.

*Provision for Income Tax.* Our consolidated effective tax rate for the nine months ended September 30, 2018 was 21.6%, compared to 24.8% for the nine months ended September 30, 2017. The tax provision for the nine months ended September 30, 2018 reflected a reduction in the federal corporate income tax rate and other changes associated with the Tax Act, including the \$0.4 million reduction to the provisional tax charge, and \$3.7 million of excess tax benefits related to share-based compensation awards that vested or were exercised during the period. The income tax provision for the nine months ended September 30, 2017 included \$14.8 million of excess tax benefits related to share-based compensation awards. Our consolidated effective tax rate can vary from period to period depending on the geographic mix of our earnings, changes in tax legislation and tax rates and the amount and timing of excess tax benefits related to share-based payments, among other factors.

## Liquidity and Capital Resources

During the past three years, we have met our funding requirements through cash on hand and internally generated funds. Cash and cash equivalents and investments totaled \$446.2 million at September 30, 2018.

In October 2015, we entered into a two-year amended and restated credit agreement (the "Credit Agreement") that increased our borrowing capacity to an aggregate of \$100.0 million. In October 2017, we amended the Credit Agreement and extended the maturity date to October 2018. The amended Credit Agreement also provided for two additional one-year extension options and modified certain borrowing terms and covenants. In October 2018, we exercised our first option to extend the maturity date to October 2019. Subject to satisfaction of certain specified conditions, we are permitted to upsize the borrowing capacity under the Credit Agreement by an additional \$50.0 million. As of September 30, 2018, we had \$1.7 million in letters of credit outstanding and \$98.3 million in available borrowing capacity under the Credit Agreement.

Our cash flows were as follows:

	Nine Months Ended September 30,			
	2018	2017	\$ Change	% Change
	(\$ in thousands)			
Net cash provided by operating activities	\$ 153,812	\$ 121,583	\$ 32,229	26.5 %
Net cash (used in) investing activities	(36,984)	(67,907)	30,923	(45.5)
Net cash (used in) financing activities	(72,431)	(84,335)	11,904	(14.1)
Effect of exchange rate changes on cash and cash equivalents	(1,326)	1,408	(2,734)	(194.2)
Net increase (decrease) for the period	<u>\$ 43,071</u>	<u>\$ (29,251)</u>	<u>\$ 72,322</u>	247.2 %

The \$32.2 million increase in net cash provided by operating activities was primarily due to a decrease in working capital of \$16.8 million, an increase in net income of \$12.4 million and an increase in depreciation and amortization of \$3.2 million.

The \$30.9 million decrease in net cash used in investing activities was primarily due to a decrease of \$46.5 million in net purchases of available-for-sale investments offset by an increase of \$15.7 million in capital expenditures, which includes \$13.9 million related to the build-out of our new headquarters in New York City.

The \$11.9 million decrease in net cash used in financing activities was principally due to a decrease of \$17.4 million in repurchases of our common stock and a decrease in withholding tax payments on restricted stock vesting and stock option exercises of \$5.0 million, offset by a \$10.2 million increase in the cash dividend paid on common stock.

Past trends of cash flows are not necessarily indicative of future cash flow levels. A decrease in cash flows may have a material adverse effect on our liquidity, business and financial condition.

### Non-GAAP Financial Measures

In addition to cash flow from operating activities in accordance with GAAP, we use a non-GAAP financial measure called "Free Cash Flow". Free Cash Flow is defined as cash flow from operating activities excluding net purchases of corporate debt trading investments less expenditures for furniture, equipment and leasehold improvements and capitalized software development costs. We believe this non-GAAP financial measure is important in gaining an understanding of our financial strength and cash flow generation.

The table set forth below presents a reconciliation of our cash flow from operating activities to Free Cash Flow, as defined, for the twelve months ended September 30, 2018 and 2017:

	<b>Twelve months ended September 30,</b>	
	<b>2018</b>	<b>2017</b>
	<b>(In thousands)</b>	
Cash flow from operating activities	\$ 200,264	\$ 178,190
Add: Net purchases of corporate debt trading investments	18,748	(8,678)
Less: Purchases of furniture, equipment and leasehold improvements	(28,662)	(8,876)
Less: Capitalization of software development costs	(12,548)	(13,154)
Free Cash Flow	<u>\$ 177,802</u>	<u>\$ 147,482</u>

#### ***Other Factors Influencing Liquidity and Capital Resources***

We believe that our current resources are adequate to meet our liquidity needs and capital expenditure requirements for at least the next 12 months. However, our future liquidity and capital requirements will depend on a number of factors, including expenses associated with product development and expansion and new business opportunities that are intended to further diversify our revenue stream. We may also acquire or invest in technologies, business ventures or products that are complementary to our business. In the event we require any additional financing, it will take the form of equity or debt financing. Any additional equity offerings may result in dilution to our stockholders. Any debt financings, if available at all, may involve restrictive covenants with respect to dividends, issuances of additional capital and other financial and operational matters related to our business.

Certain of our U.S. subsidiaries are registered as a broker-dealer or a SEF and therefore are subject to the applicable rules and regulations of the SEC and the CFTC. These rules contain minimum net capital requirements, as defined in the applicable regulations, and also may require a significant part of the registrants' assets be kept in relatively liquid form. Certain of our foreign subsidiaries are regulated by the Financial Conduct Authority in the U.K. or other foreign regulators and must maintain financial resources, as defined in the applicable regulations, in excess of the applicable financial resources requirement. As of September 30, 2018, each of our subsidiaries that are subject to these regulations had net capital or financial resources in excess of their minimum requirements. As of September 30, 2018, our subsidiaries maintained aggregate net capital and financial resources that were \$170.6 million in excess of the required levels of \$14.8 million.

Each of our U.S. and foreign regulated subsidiaries are subject to local regulations which generally prohibit repayment of borrowings from our affiliates, paying cash dividends, making loans to our affiliates or otherwise entering into transactions that result in a significant reduction in regulatory net capital or financial resources without prior notification to or approval from such regulated entity's principal regulator. As of September 30, 2018, the amount of unrestricted cash held by our non-U.S. subsidiaries was \$85.4 million.

Pursuant to the Tax Act, all previously undistributed earnings have now been subject to U.S. Tax. Notwithstanding the U.S. taxation of these amounts, we consider our undistributed foreign earnings to be indefinitely reinvested outside of the U.S. and do not expect to incur any significant additional taxes related to such amounts.

We execute certain bond transactions between and among institutional investor and broker-dealer clients on a matched principal basis by serving as counterparty to both the buyer and the seller in trades which settle through third-party clearing brokers. Settlement typically occurs within one to two trading days after the trade date. Cash settlement of the transaction occurs upon receipt or delivery of the underlying instrument that was traded. Under securities clearing agreements with third party clearing brokers, we maintain collateral deposits with each clearing broker in the form of cash. The amount of the collateral deposits included in prepaid expenses and other assets in the Consolidated Statements of Financial Condition was \$1.2 million as of both September 30, 2018 and 2017. We are exposed to credit risk in the event a counterparty does not fulfill its obligation to complete a transaction or if there is a miscommunication or other error in executing a matched principal transaction. Pursuant to the terms of the securities clearing agreements, each third-party clearing broker has the right to charge us for any losses they suffer resulting from a counterparty's failure on any of our trades. We did not record any liabilities or losses with regard to this right for the nine months ended September 30, 2018 and 2017.

In the normal course of business, we enter into contracts that contain a variety of representations, warranties and indemnification provisions. Our maximum exposure from any claims under these arrangements is unknown, as this would involve claims that have not yet occurred. However, based on past experience, we expect the risk of loss to be remote.

In September 2017, our Board of Directors authorized a new fifteen-month share repurchase program for up to \$100.0 million commencing in October 2017. Shares repurchased under the program will be held in treasury for future use.

In October 2018, our Board of Directors approved a quarterly cash dividend of \$0.42 per share payable on November 21, 2018 to stockholders of record as of the close of business on November 7, 2018. Any future declaration and payment of dividends will be at the sole discretion of our Board of Directors. Our Board of Directors may take into account such matters as general business conditions, our financial results, capital requirements, contractual obligations, legal, and regulatory restrictions on the payment of dividends to our stockholders or by our subsidiaries to their respective parent entities, and any such other factors as the Board of Directors may deem relevant.

### *Effects of Inflation*

Because the majority of our assets are short-term in nature, they are not significantly affected by inflation. However, the rate of inflation may affect our expenses, such as employee compensation, office leasing costs and communications expenses, which may not be readily recoverable in the prices of our services. To the extent inflation results in rising interest rates and has other adverse effects on the securities markets, it may adversely affect our financial condition and results of operations.

### **Contractual Obligations and Commitments**

As of September 30, 2018, we had the following contractual obligations and commitments:

	<b>Payments due by period</b>				
	<b>Total</b>	<b>Less than 1 year</b>	<b>1 - 3 years</b>	<b>3 - 5 years</b>	<b>More than 5 - years</b>
	<b>(In thousands)</b>				
Operating leases	\$ 139,756	\$ 7,485	\$ 21,646	\$ 18,187	\$ 92,438
Foreign currency forward contract	99,328	99,328	—	—	—
	<u>\$ 239,084</u>	<u>\$ 106,813</u>	<u>\$ 21,646</u>	<u>\$ 18,187</u>	<u>\$ 92,438</u>

During 2016, we entered into a fifteen-year lease agreement for our new global headquarters in New York City. We expect to vacate all of the office space we currently lease in New York City and relocate our headquarters to approximately 83,000 square feet of newly built office space at 55 Hudson Yards upon the building's completion in December 2018. Rent expense recognition for the office space at 55 Hudson Yards commenced in January 2018 upon us accepting possession of the premises.

We enter into foreign currency forward contracts to hedge our exposure to variability in certain foreign currency cash flows resulting from the net investment in our U.K. subsidiaries. As of September 30, 2018, the notional value of the foreign currency forward contract outstanding was \$99.3 million and the fair value of the asset was \$1.5 million.

### **Item 3. *Quantitative and Qualitative Disclosures about Market Risk***

Market risk is the risk of the loss resulting from adverse changes in market rates and prices, such as interest rates and foreign currency exchange rates.

#### ***Market Risk***

The global financial services business is, by its nature, risky and volatile and is directly affected by many national and international factors that are beyond our control. Any one of these factors may cause a substantial decline in the U.S. and global financial services markets, resulting in reduced trading volume and revenues. These events could have a material adverse effect on our business, financial condition and results of operations.

As of September 30, 2018, we had \$231.6 million of investments, which were invested in corporate bonds and classified as securities available-for-sale or trading securities. Adverse movements, such as a 10% decrease in the value of these securities or a downturn or disruption in the markets for these securities, could result in a substantial loss. In addition, principal gains and losses resulting from these securities could on occasion have a disproportionate effect, positive or negative, on our financial condition and results of operations for any particular reporting period.

#### ***Interest Rate Risk***

Interest rate risk represents our exposure to interest rate changes with respect to our cash, cash equivalents and investments. As of September 30, 2018, our cash and cash equivalents and investments amounted to \$441.7 million. A hypothetical five basis point decrease in short-term interest rates would decrease our annual pre-tax earnings by approximately \$0.2 million, assuming no change in the amount or composition of our cash and cash equivalents.

As of September 30, 2018, a hypothetical 100 basis point increase or decrease in interest rates would decrease or increase the fair value of the available-for-sale investment portfolio by approximately \$1.3 million, assuming no change in the amount or composition of the investments. The hypothetical unrealized gain (loss) of \$1.3 million would be recognized in accumulated other comprehensive loss on the Consolidated Statements of Financial Condition.

A similar hypothetical 100 basis point increase or decrease in interest rates would decrease or increase the fair value of the trading securities portfolio by approximately \$0.7 million. The hypothetical unrealized gain (loss) of \$0.7 million would be recognized in other, net in the Consolidated Statements of Operations.

We do not maintain an inventory of bonds that are traded on our platform.

#### ***Foreign Currency Exchange Rate Risk***

We conduct operations in several different countries outside of the U.S., most notably the U.K., and substantial portions of our revenues, expenses, assets and liabilities are generated and denominated in non U.S. dollar currencies. Since our consolidated financial statements are presented in U.S. dollars, we must translate revenues, income and expenses, as well as assets and liabilities, into U.S. dollars at exchange rates in effect during or at the end of each reporting period. Accordingly, increases or decreases in the value of the U.S. dollar against the other currencies will affect our net operating revenues, operating income and the value of balance sheet items denominated in foreign currencies.

During the twelve months ended September 30, 2018, approximately 14.3% of our revenue and 28.4% of our expenses were denominated in currencies other than the U.S. dollar, most notably the British Pound Sterling. Based on actual results over the past year, a hypothetical 10% increase or decrease in the U.S. dollar against all other currencies would have increased or decreased revenue by approximately \$6.0 million and operating expenses by approximately \$6.2 million.

#### ***Derivative Risk***

Our limited derivative risk stems from our activities in the foreign currency forward contract market. We use this market to mitigate our U.S. dollar versus British Pound Sterling exposure that arises from the activities of our U.K. subsidiaries. As of September 30, 2018, the fair value of the notional amount of our foreign currency forward contract was \$99.3 million. We do not speculate in any derivative instruments.

### ***Credit Risk***

Two of our subsidiaries, MarketAxess Corporation and MarketAxess Capital Limited, act as a matched principal counterparty in connection with the Open Trading™ transactions that we execute between clients. We act as an intermediary in these transactions by serving as counterparty to both the buyer and the seller in trades which then settle through a third-party clearing broker. Settlement typically occurs within one to two trading days after the trade date. Cash settlement of the transaction occurs upon receipt or delivery of the underlying instrument that was traded.

We are exposed to credit and performance risks in our role as matched principal trading counterparty to our Open Trading™ clients executing bond trades on our platform, including the risk that counterparties that owe us money or securities will not perform their obligations. These parties may default on their obligations to us due to bankruptcy, lack of liquidity, operational failure or other reasons. Adverse movements in the prices of securities that are the subject of these transactions can increase our risk. In connection with Open Trading™ or other anonymous protocols, we expect that the number of transactions in which we act as a matched principal will increase.

We have policies and procedures in place to identify and manage our credit risk. In connection with the growth of our Open Trading™ protocols, we have implemented additional automated controls to help us manage our credit risk exposure. There can be no assurance that the policies, procedures and automated controls we use to manage this credit risk will effectively mitigate our credit risk exposure. Some of our risk management procedures are reliant upon the evaluation of information regarding the fixed-income markets, our clients or other relevant matters that are publicly available or otherwise acquired from third party sources. Such information may not be accurate, complete, up-to-date or properly assessed and interpreted by us. If our risk management procedures fail, our business, financial condition and results of operations may be adversely affected. Furthermore, our insurance policies are unlikely to provide coverage for such risks.

Cash and cash equivalents includes cash and money market instruments that are primarily maintained at one major global bank. Given this concentration, we are exposed to certain credit risk in relation to our deposits at this bank.

### **Item 4. Controls and Procedures**

(a) *Evaluation of Disclosure Controls and Procedures.* Our management, including the Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our “disclosure controls and procedures,” as that term is defined in Rule 13a-15(e) and Rule 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), as of September 30, 2018. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the disclosure controls and procedures are effective to ensure that information required to be disclosed by MarketAxess in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and to ensure that information is accumulated and communicated to our management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

(b) *Changes in Internal Control over Financial Reporting.* There were no changes in our internal control over financial reporting (as defined in Rule 13a-15(f) and Rule 15d-15(f) under the Exchange Act) during the quarter ended September 30, 2018 identified in connection with the evaluation thereof by our management, including the Chief Executive Officer and Chief Financial Officer, that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## PART II — Other Information

### Item 1. Legal Proceedings

In the normal course of business, we and our subsidiaries included in the consolidated financial statements may be involved in various lawsuits, proceedings and regulatory examinations. We assess liabilities and contingencies in connection with outstanding legal proceedings, if any, utilizing the latest information available. For matters where it is probable that we will incur a material loss and the amount can be reasonably estimated, we will establish an accrual for the loss. Once established, the accrual will be adjusted to reflect any relevant developments. When a loss contingency is not both probable and estimable, we would not establish an accrual.

Based on currently available information, the outcome of our outstanding matters is not expected to have a material adverse impact on our financial position. It is not presently possible to determine our ultimate exposure to these matters and there is no assurance that the resolution of the outstanding matters will not significantly exceed any reserves accrued by us.

### Item 1A. Risk Factors

There have been no material changes in our risk factors from those disclosed in our most recent Form 10-K, as amended, for the year ended December 31, 2017. For a discussion of the risk factors affecting the Company, see "Risk Factors" in Part I, Item 1A of our 2017 Form 10-K, as amended, for the year ended December 31, 2017.

### Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

#### Recent Sales of Unregistered Securities

None.

#### Issuer Purchases of Equity Securities

During the quarter ended September 30, 2018, we repurchased the following shares of common stock:

<u>Period</u>	<u>Total Number of Shares Purchased</u>	<u>Average Price Paid per Share</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Plans and Programs</u>	<u>Dollar Value of Shares That May Yet Be Purchased Under the Plans and Programs</u> <u>(In thousands)</u>
July 1, 2018 - July 31, 2018	10,870	\$ 204.29	10,500	\$ 78,839
August 1, 2018 - August 31, 2018	11,723	189.45	11,500	76,661
September 1, 2018 - September 30, 2018	11,104	185.55	9,500	74,905
	<u>33,697</u>	<u>\$ 192.95</u>	<u>31,500</u>	

During the three months ended September 30, 2018, we repurchased 33,697 shares of common stock. The repurchases included 2,197 shares surrendered by employees to us to satisfy the withholding tax obligations upon the vesting of restricted shares and 31,500 shares repurchased in connection with our share repurchase program.

In September 2017, our Board of Directors authorized a new fifteen-month share repurchase program for up to \$100.0 million commencing in October 2017. Shares repurchased under the program will be held in treasury for future use.

### Item 3. Defaults upon Senior Securities

None.

### Item 4. Mine Safety Disclosures

Not applicable.



**Item 5. Other Information**

None.

**Item 6. Exhibits**

Exhibit Listing:

<b>Number</b>	<b>Description</b>
31.1*	<a href="#"><u>Certification by Chief Executive Officer pursuant to Exchange Act Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u></a>
31.2*	<a href="#"><u>Certification by Chief Financial Officer pursuant to Exchange Act Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u></a>
32.1*	<a href="#"><u>Certification by Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u></a>
32.2*	<a href="#"><u>Certification by Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u></a>
101.INS	XBRL Instance Document**
101.SCH	XBRL Taxonomy Extension Schema Document**
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document**
101.LAB	XBRL Taxonomy Extension Label Linkbase Document**
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document**
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document**

\* Filed herewith.

\*\* Attached as Exhibit 101 to this Quarterly Report on Form 10-Q are the following materials, formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Statements of Financial Condition as of September 30, 2018 and December 31, 2017; (ii) Consolidated Statements of Operations for the Three and Nine Months Ended September 30, 2018 and 2017; (iii) Consolidated Statements of Comprehensive Income for the Three and Nine Months Ended September 30, 2018 and 2017; (iv) Consolidated Statement of Stockholders' Equity for the Nine Months Ended September 30, 2018; (v) Consolidated Statements of Cash Flows for the Nine Months Ended September 30, 2018 and 2017; and (vi) Notes to the Consolidated Financial Statements.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

MARKETAXESS HOLDINGS INC.

Date: October 25, 2018

By: /s/ RICHARD M. MCVEY  
Richard M. McVey  
Chief Executive Officer  
(principal executive officer)

Date: October 25, 2018

By: /s/ ANTONIO L. DELISE  
Antonio L. DeLise  
Chief Financial Officer  
(principal financial and accounting officer)

## CERTIFICATIONS

I, Richard M. McVey, certify that:

1. I have reviewed this quarterly report on Form 10-Q of MarketAxess Holdings Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ RICHARD M. MCVEY  
Richard M. McVey  
Chief Executive Officer  
(principal executive officer)

Dated: October 25, 2018

## CERTIFICATIONS

I, Antonio L. DeLise, certify that:

1. I have reviewed this quarterly report on Form 10-Q of MarketAxess Holdings Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ ANTONIO L. DELISE

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Antonio L. DeLise  
Chief Financial Officer  
(principal financial and accounting officer)

Dated: October 25, 2018

**Certification Under Section 906 of the Sarbanes-Oxley Act of 2002**  
**(United States Code, Title 18, Chapter 63, Section 1350)**  
**Accompanying Quarterly Report on Form 10-Q of**  
**MarketAxess Holdings Inc. for the Quarter Ended September 30, 2018**

In connection with the Quarterly Report on Form 10-Q of MarketAxess Holdings Inc. (the "Company") for the quarter ended September 30, 2018, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Richard M. McVey, Chief Executive Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ RICHARD M. MCVEY  
Richard M. McVey  
Chief Executive Officer

October 25, 2018

*This certification shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section, nor shall it be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent the Company specifically incorporates it by reference.*

**Certification Under Section 906 of the Sarbanes-Oxley Act of 2002  
(United States Code, Title 18, Chapter 63, Section 1350)  
Accompanying Quarterly Report on Form 10-Q of  
MarketAxess Holdings Inc. for the Quarter Ended September 30, 2018**

In connection with the Quarterly Report on Form 10-Q of MarketAxess Holdings Inc. (the "Company") for the quarter ended September 30, 2018, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Antonio L. DeLise, Chief Financial Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ ANTONIO L. DELISE  
Antonio L. DeLise  
Chief Financial Officer

October 25, 2018

*This certification shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section, nor shall it be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent the Company specifically incorporates it by reference.*

