UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)

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

For the fiscal period ended September 30, 2017

☐ **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 001-32722

INVESTMENT TECHNOLOGY GROUP, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**95 - 2848406**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
165 Broadway, New York, New York	**10006**
(Address of Principal Executive Offices)	(Zip Code)

(212) 588 - 4000
(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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post 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 definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.:

Large accelerated filer ☒	Accelerated filer ☐
Non-accelerated filer ☐ (Do not check if a smaller reporting company)	Smaller reporting company ☐
	Emerging growth company ☐

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 ☒

At October 10, 2017, the Registrant had 33,060,740 shares of common stock, $0.01 par value, outstanding.

QUARTERLY REPORT ON FORM 10-Q

TABLE OF CONTENTS

		Page
	PART I. — Financial Information	
Item 1.	Financial Statements	
	Condensed Consolidated Statements of Financial Condition: September 30, 2017 (unaudited) and December 31, 2016	4
	Condensed Consolidated Statements of Operations (unaudited): Three and Nine Months Ended September 30, 2017 and 2016	5
	Condensed Consolidated Statements of Comprehensive Loss (unaudited): Three and Nine Months Ended September 30, 2017 and 2016	6
	Condensed Consolidated Statement of Changes in Stockholders' Equity (unaudited): Nine Months Ended September 30, 2017	7
	Condensed Consolidated Statements of Cash Flows (unaudited): Nine Months Ended September 30, 2017 and 2016	8
	Notes to Condensed Consolidated Financial Statements (unaudited)	9
Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	25
Item 3.	Quantitative and Qualitative Disclosures About Market Risk	44
Item 4.	Controls and Procedures	44
	PART II. — Other Information	
Item 1.	Legal Proceedings	45
Item 1A.	Risk Factors	45
Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	45
Item 3.	Defaults Upon Senior Securities	46
Item 4.	Mine Safety Disclosures	46
Item 5.	Other Information	46
Item 6.	Exhibits	47
	Signature	48

Investment Technology Group, ITG, the ITG logo, AlterNet, ITG Net, POSIT, POSIT Alert, RFQ-hub and Triton are registered trademarks or service marks of the Investment Technology Group, Inc. companies. ITG Derivatives and Single Ticket Clearing are trademarks or service marks of the Investment Technology Group, Inc. companies.

PRELIMINARY NOTES

When we use the terms "ITG," the "Company," "we," "us" and "our," we mean Investment Technology Group, Inc. and its consolidated subsidiaries.

FORWARD-LOOKING STATEMENTS

In addition to the historical information contained throughout this Quarterly Report on Form 10-Q, there are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and the Private Securities Litigation Reform Act of 1995. All statements regarding our expectations related to our future financial position, results of operations, revenues, cash flows, dividends, stock repurchases, financing plans, business and product strategies, competitive positions, as well as the plans and objectives of management for future operations, and all expectations concerning securities markets, client trading and economic trends are forward-looking statements. In some cases, you can identify these statements by forward-looking words such as "may," "might," "will," "could," "should," "would," "expect," "plan," "anticipate," "believe," "estimate," "predict," "trend," "potential" or "continue" and the negative of these terms and other comparable terminology.

Although we believe our expectations reflected in such forward-looking statements are based on reasonable assumptions and beliefs, and on information currently available to our management, there can be no assurance that such expectations will prove to have been correct. Important factors that could cause actual results to differ materially from the expectations reflected in the forward-looking statements herein include, among others, general economic, business, credit, political and financial market conditions, both internationally and domestically, financial market volatility, fluctuations in market trading volumes, effects of inflation, adverse changes or volatility in interest rates, fluctuations in foreign exchange rates, evolving industry regulations and increased regulatory scrutiny, the outcome of contingencies such as legal proceedings or governmental or regulatory investigations and customer or shareholder reaction to, or further proceedings or sanctions based on, such matters, the volatility of our stock price, changes in tax policy or accounting rules, the ability of the Company to recognize its deferred tax assets, the actions of both current and potential new competitors, changes in commission pricing, rapid changes in technology, errors or malfunctions in our systems or technology, operational risks related to misconduct or errors by our employees or entities with which we do business, cash flows into or redemptions from equity mutual funds, ability to meet the capital and liquidity requirements of our securities businesses and the related clearing of our customers' trades, customer trading patterns, the success of our products and service offerings, our ability to continue to innovate and meet the demands of our customers for new or enhanced products, our ability to protect our intellectual property, our ability to execute on strategic initiatives or transactions, our ability to attract and retain talented employees, and our ability to pay dividends or repurchase our common stock in the future.

Certain of these factors, and other factors, are more fully discussed in Item 1A, Risk Factors, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, and Item 7A, Quantitative and Qualitative Disclosures about Market Risk, in our Annual Report on Form 10-K for the year ended December 31, 2016, which you are encouraged to read. Our 2016 Annual Report on Form 10-K is also available through our website at http://investor.itg.com under "SEC Filings."

We disclaim any duty to update any of these forward-looking statements after the filing of this report to conform our prior statements to actual results or revised expectations and we do not intend to do so. These forward-looking statements should not be relied upon as representing our views as of any date subsequent to the filing of this report.

PART I. — FINANCIAL INFORMATION

Item 1. Financial Statements

INVESTMENT TECHNOLOGY GROUP, INC. AND SUBSIDIARIES
Condensed Consolidated Statements of Financial Condition
(In thousands, except share amounts)

	September 30, 2017 (unaudited)	December 31, 2016
Assets		
Cash and cash equivalents	$ 238,793	$ 277,977
Cash restricted or segregated under regulations and other	13,562	40,353
Deposits with clearing organizations	81,056	62,556
Securities owned, at fair value	1,747	2,557
Receivables from brokers, dealers and clearing organizations	207,598	152,294
Receivables from customers	93,825	54,486
Premises and equipment, net	56,698	59,333
Capitalized software, net	40,641	38,606
Goodwill	10,962	10,102
Intangibles, net	14,291	15,390
Income taxes receivable	2,738	873
Deferred tax assets	4,663	38,688
Other assets	27,471	22,070
Total assets	$ 794,045	$ 775,285
Liabilities and Stockholders' Equity		
Liabilities:		
Accounts payable and accrued expenses	$ 158,931	$ 174,343
Short-term bank loans	101,996	72,150
Payables to brokers, dealers and clearing organizations	106,628	100,188
Payables to customers	44,125	12,272
Securities sold, not yet purchased, at fair value	42	249
Income taxes payable	5,211	4,552
Deferred tax liabilities	2,448	—
Term debt	2,404	6,367
Total liabilities	421,785	370,121
Commitments and contingencies		
Stockholders' Equity:		
Preferred stock, $0.01 par value; 1,000,000 shares authorized; no shares issued or outstanding	—	—
Common stock, $0.01 par value; 100,000,000 shares authorized; 52,605,650 and 52,456,165 shares issued at September 30, 2017 and December 31, 2016, respectively	526	525
Additional paid-in capital	245,669	248,748
Retained earnings	491,683	536,350
Common stock held in treasury, at cost; 19,546,278 and 19,830,032 shares at September 30, 2017 and December 31, 2016, respectively	(343,834)	(346,482)
Accumulated other comprehensive loss (net of tax)	(21,784)	(33,977)
Total stockholders' equity	372,260	405,164
Total liabilities and stockholders' equity	$ 794,045	$ 775,285

See accompanying notes to unaudited condensed consolidated financial statements.

INVESTMENT TECHNOLOGY GROUP, INC. AND SUBSIDIARIES
Condensed Consolidated Statements of Operations (unaudited)
(In thousands, except per share amounts)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	**2016**	**2017**	**2016**
Revenues:				
Commissions and fees	$ 93,475	$ 83,485	$ 293,919	$ 277,141
Recurring	18,930	19,214	56,813	63,220
Other	2,126	1,486	6,215	9,102
Total revenues	114,531	104,185	356,947	349,463
Expenses:				
Compensation and employee benefits	46,755	45,127	139,433	145,906
Transaction processing	23,428	20,799	73,766	65,731
Occupancy and equipment	14,945	13,849	45,247	41,893
Telecommunications and data processing services	12,189	13,720	36,345	43,341
Restructuring charges	—	—	—	4,355
Other general and administrative	18,670	37,927	53,684	87,663
Interest expense	499	561	1,529	1,668
Total expenses	116,486	131,983	350,004	390,557
(Loss) income before income tax expense (benefit)	(1,955)	(27,798)	6,943	(41,094)
Income tax expense (benefit)	45,012	(3,887)	43,965	(9,460)
Net loss	$ (46,967)	$ (23,911)	$ (37,022)	$ (31,634)
Loss per share:				
Basic	$ (1.42)	$ (0.73)	$ (1.12)	$ (0.96)
Diluted	$ (1.42)	$ (0.73)	$ (1.12)	$ (0.96)
Basic weighted average number of common shares outstanding	33,105	32,725	33,060	33,006
Diluted weighted average number of common shares outstanding	33,105	32,725	33,060	33,006

See accompanying notes to unaudited condensed consolidated financial statements.

INVESTMENT TECHNOLOGY GROUP, INC. AND SUBSIDIARIES
Condensed Consolidated Statements of Comprehensive Loss (unaudited)
(In thousands)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	**2016**	**2017**	**2016**
Net loss	$ (46,967)	$ (23,911)	$ (37,022)	$ (31,634)
Other comprehensive income (loss), net of tax:				
Currency translation adjustment	5,437	(3,751)	12,193	(8,530)
Other comprehensive income (loss)	5,437	(3,751)	12,193	(8,530)
Comprehensive loss	$ (41,530)	$ (27,662)	$ (24,829)	$ (40,164)

See accompanying notes to unaudited condensed consolidated financial statements.

INVESTMENT TECHNOLOGY GROUP, INC. AND SUBSIDIARIES
Condensed Consolidated Statement of Changes in Stockholders' Equity (unaudited)
Nine Months Ended September 30, 2017
(In thousands, except share amounts)

	Preferred Stock	Common Stock	Additional Paid-in Capital	Retained Earnings	Common Stock Held in Treasury	Accumulated Other Comprehensive Income/(Loss)	Total Stockholders' Equity
Balance at January 1, 2017	$ —	$ 525	$ 248,748	$536,350	$(346,482)	$ (33,977)	$ 405,164
Net loss	—	—	—	(37,022)	—	—	(37,022)
Other comprehensive income	—	—	—	—	—	12,193	12,193
Issuance of common stock in connection with restricted stock unit awards (1,279,170 shares)	—	1	(20,215)	—	20,463	—	249
Issuance of common stock for the employee stock purchase plan (40,378 shares)	—	—	527	—	—	—	527
Shares withheld for net settlements of share-based awards (518,777 shares)	—	—	—	—	(10,484)	—	(10,484)
Purchase of common stock for treasury (371,704 shares)	—	—	—	—	(7,404)	—	(7,404)
Dividends declared on common stock	—	—	13	(7,002)	73	—	(6,916)
Share-based compensation	—	—	15,730	—	—	—	15,730
Cumulative effect of accounting change	—	—	866	(643)			223
Balance at September 30, 2017	$ —	$ 526	$ 245,669	$491,683	$(343,834)	$ (21,784)	$ 372,260

See accompanying notes to unaudited condensed consolidated financial statements.

INVESTMENT TECHNOLOGY GROUP, INC. AND SUBSIDIARIES
Condensed Consolidated Statements of Cash Flows (unaudited)
(In thousands)

	Nine Months Ended September 30,	
	2017	**2016**
Cash Flows from Operating Activities:		
Net loss	$ (37,022)	$ (31,634)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	33,687	32,450
Deferred income tax expense (benefit)	35,182	(12,426)
Provision for doubtful accounts	451	108
Non-cash share-based compensation	15,730	19,409
Other intangible asset impairment	325	—
Gain on sale of investment research operations	—	(21)
Changes in operating assets and liabilities:		
Cash restricted or segregated under regulations and other	26,949	91
Deposits with clearing organizations	(15,244)	(6,742)
Securities owned, at fair value	813	(2,744)
Receivables from brokers, dealers and clearing organizations	(43,275)	736,136
Receivables from customers	(33,608)	(33,777)
Accounts payable and accrued expenses	(18,942)	1,659
Payables to brokers, dealers and clearing organizations	661	(784,076)
Payables to customers	29,628	17,827
Securities sold, not yet purchased, at fair value	(209)	3,175
Income taxes receivable/payable	2,592	(9,572)
Excess tax benefit from share-based payment arrangements	—	(1,102)
Other, net	(5,685)	(3,447)
Net cash used in operating activities	(7,967)	(74,686)
Cash Flows from Investing Activities:		
Capital purchases	(10,228)	(9,668)
Capitalization of software development costs	(21,014)	(18,705)
Proceeds from sale of investment research operations, net of deal costs	—	6,125
Net cash used in investing activities	(31,242)	(22,248)
Cash Flows from Financing Activities:		
Repayments of long term debt	(3,963)	(4,649)
Proceeds from borrowing under short-term bank loans	29,846	51,553
Debt issuance costs	(762)	(810)
Excess tax benefit from share-based payment arrangements	—	1,102
Common stock issued	776	3,111
Common stock repurchased	(7,404)	(22,112)
Dividends paid	(6,891)	(6,865)
Shares withheld for net settlements of share-based awards	(10,484)	(6,617)
Net cash provided by financing activities	1,118	14,713
Effect of exchange rate changes on cash and cash equivalents	(1,093)	12,443
Net decrease in cash and cash equivalents	(39,184)	(69,778)
Cash and cash equivalents—beginning of period	277,977	330,653
Cash and cash equivalents—end of period	$ 238,793	$ 260,875
Supplemental cash flow information:		
Interest paid	$ 3,412	$ 3,067
Income taxes paid	$ 7,421	$ 12,319

See accompanying notes to unaudited condensed consolidated financial statements.

INVESTMENT TECHNOLOGY GROUP, INC. AND SUBSIDIARIES
Notes to Condensed Consolidated Financial Statements (unaudited)

(1) Organization and Basis of Presentation

Investment Technology Group, Inc. (the "Company" or "ITG") was formed as a Delaware corporation on July 22, 1983. Its principal subsidiaries include: (1) ITG Inc., AlterNet Securities, Inc. ("AlterNet") and ITG Derivatives LLC ("ITG Derivatives"), institutional broker-dealers in the United States ("U.S."), (2) ITG Canada Corp., an institutional broker-dealer in Canada, (3) Investment Technology Group Limited, an institutional broker-dealer in Europe, (4) ITG Australia Limited, an institutional broker-dealer in Australia, (5) ITG Hong Kong Limited, an institutional broker-dealer in Hong Kong, (6) ITG Software Solutions, Inc., the Company's intangible property, software development and maintenance subsidiary in the U.S., and (7) ITG Solutions Network, Inc., a holding company for ITG Analytics, Inc., a provider of pre- and post-trade analysis, fair value and trade optimization services, and ITG Platforms Inc., a provider of workflow technology solutions and network connectivity services for the financial community.

ITG is a global financial technology company that helps leading brokers and asset managers improve returns for investors around the world. ITG empowers traders to reduce the end-to-end cost of implementing investments via liquidity, execution, analytics and workflow technology solutions. ITG has offices in Asia Pacific, Europe and North America and offers execution services in more than 50 countries.

The Company's business is organized into four reportable operating segments: U.S. Operations, Canadian Operations, European Operations and Asia Pacific Operations (see Note 15, *Segment Reporting,* to the condensed consolidated financial statements).

The four operating segments offer a wide range of solutions for asset managers and broker-dealers in the areas of execution services, workflow technology and analytics. These offerings include trade execution services and solutions for portfolio management, as well as pre-trade analytics and post-trade analytics and processing.

Regional segment results exclude the impact of Corporate activity, which is presented separately and includes investment income from treasury activity, certain non-operating revenues and other gains as well as costs not associated with operating the businesses within the Company's regional segments. These costs include, among others, (a) the costs of being a public company, such as certain staff costs, a portion of external audit fees, and reporting, filing and listing costs, (b) intangible asset amortization, (c) interest expense, (d) professional fees associated with the Company's global transfer pricing structure, (e) foreign exchange gains or losses and (f) certain non-operating expenses.

The condensed consolidated financial statements and accompanying notes are prepared in accordance with accounting principles generally accepted in the U.S. ("U.S. GAAP"). All material intercompany balances and transactions have been eliminated in consolidation. The condensed consolidated financial statements reflect all adjustments which, in the opinion of management, are necessary for the fair presentation of the financial statements.

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

Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. GAAP have been condensed or omitted in accordance with Securities and Exchange Commission ("SEC") rules and regulations; however, management believes that the disclosures herein are adequate to make the information presented not misleading. This report should be read in conjunction with the audited financial statements and the notes included in the Company's Annual Report on Form 10-K for the year ended December 31, 2016.

Recently Adopted Accounting Standards

In March 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-09, *Improvements to Employee Share-Based Payment Accounting,* which changes the accounting for certain aspects of share-based payments to employees. The new guidance requires, among its other provisions, that excess tax benefits (which represent the excess of actual tax benefits received at the date of vesting or settlement over the benefits recognized over the vesting period or upon issuance of share-based payments) and tax deficiencies (which

represent the amount by which actual tax benefits received at the date of vesting or settlement is lower than the benefits recognized over the vesting period or upon issuance of share-based payments) be recorded in the income statement as an increase or decrease in income tax expense (benefit) when the awards vest or are settled. This is in contrast to the prior requirement that these excess tax benefits be recognized in additional paid-in capital and these tax deficiencies be recognized either as an offset to accumulated excess tax benefits, if any, or in the income statement. The new guidance also requires excess tax benefits to be classified along with other income tax cash flows as an operating activity in the statement of cash flows rather than, as previously required, a financing activity. The new guidance is effective for annual and interim reporting periods beginning after December 15, 2016 and as such was implemented on January 1, 2017.

As a result of this adoption, the Company:

- Recognized net excess tax benefits of $0.1 million and $1.2 million during the three and nine months ended September 30, 2017, which is included in income tax benefit in the Condensed Consolidated Statements of Operations.

- Elected to adopt the cash flow presentation of the excess tax benefits prospectively during the nine months ended September 30, 2017, where these benefits are classified along with other income tax cash flows as an operating activity in the Condensed Consolidated Statement of Cash Flows.

- Elected to account for forfeitures as they occur rather than under the previous method of estimating the number of stock-based awards expected to vest in order to determine the amount of compensation cost to be recognized in each period. This resulted in an adjustment for the cumulative effect of this accounting change as of January 1, 2017 to reduce retained earnings by $0.6 million and to increase deferred tax assets and additional paid-in capital by $0.3 million and $0.9 million, respectively.

- Did not change its policy on statutory withholding requirements. Amounts paid by the Company to taxing authorities when directly withholding shares associated with employees' income tax withholding obligations are classified as a financing activity in the Condensed Consolidated Statements of Cash Flows.

- Excluded the excess tax benefits from the assumed proceeds available to repurchase shares in the computation of diluted earnings per share for the three and nine months ended September 30, 2017.

(2) Fair Value Measurements

Fair value is 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. In determining fair value, various methods are used including market, income and cost approaches. Based on these approaches, certain assumptions that market participants would use in pricing the asset or liability are used, including assumptions about risk and/or the risks inherent in the inputs to the valuation technique. These inputs can be readily observable, market-corroborated, or generally unobservable firm inputs. Valuation techniques that are used maximize the use of observable inputs and minimize the use of unobservable inputs. Based on the observability of the inputs used in the valuation techniques, fair value measured financial instruments are categorized according to the fair value hierarchy prescribed by Accounting Standards Codification ("ASC") 820, *Fair Value Measurements and Disclosures*. The fair value hierarchy ranks the quality and reliability of the information used to determine fair values. Financial assets and liabilities carried at fair value are classified and disclosed in one of the following three categories:

* Level 1: Fair value measurements using unadjusted quoted market prices in active markets for identical, unrestricted assets or liabilities.

* Level 2: Fair value measurements using correlation with (directly or indirectly) observable market-based inputs, unobservable inputs that are corroborated by market data, or quoted prices in markets that are not active.

* Level 3: Fair value measurements using inputs that are significant and not readily observable in the market.

Level 1 consists of financial instruments whose value is based on quoted market prices such as exchange-traded mutual funds and listed equities.

Level 2 includes financial instruments that are valued based upon observable market-based inputs.

Level 3 is comprised of financial instruments whose fair value is estimated based on internally developed models or methodologies utilizing significant inputs that are generally less readily observable.

Fair value measurements for those items measured on a recurring basis are as follows (dollars in thousands):

September 30, 2017	Total	Level 1	Level 2	Level 3
Assets				
Securities owned, at fair value:				
Corporate stocks - trading securities	$ 44	$ 44	$ —	$ —
Mutual funds	1,703	1,703	—	—
Total	$ 1,747	$ 1,747	$ —	$ —
Liabilities				
Securities sold, not yet purchased, at fair value:				
Corporate stocks - trading securities	42	42	—	—
Total	$ 42	$ 42	$ —	$ —

December 31, 2016	Total	Level 1	Level 2	Level 3
Assets				
Securities owned, at fair value:				
Corporate stocks - trading securities	$ 244	$ 244	$ —	$ —
Mutual funds	2,313	2,313	—	—
Total	$ 2,557	$ 2,557	$ —	$ —
Liabilities				
Securities sold, not yet purchased, at fair value:				
Corporate stocks - trading securities	249	249	—	—
Total	$ 249	$ 249	$ —	$ —

Cash and cash equivalents other than bank deposits are measured at fair value and primarily include money market mutual funds.

Securities owned, at fair value and securities sold, not yet purchased, at fair value include corporate stocks, equity index mutual funds and bond mutual funds, all of which are exchange traded.

Certain of the Company's assets and liabilities are carried at contracted amounts that approximate fair value. Assets and liabilities that are recorded at contracted amounts approximating fair value consist primarily of receivables from and payables to brokers, dealers, clearing organizations and customers. These receivables and payables to brokers, dealers, clearing organizations and customers are short-term in nature and, following September 30, 2017, substantially all have settled at the contracted amounts.

The Company believes the carrying amounts of its term-debt obligations at September 30, 2017 and December 31, 2016 approximate fair value because the interest rates on these instruments change with, or approximate, market interest rates.

(3) Formation of Derivatives Venture

In September 2017, the Company signed a definitive agreement with Option Technology Solutions LLC ("OpTech") to form Matrix Holdings Group ("Matrix"), a newly established derivatives execution and technology business focused on sell-side clients, professional traders and select hedge funds. The venture is expected to launch by the first quarter of 2018, subject to receipt of required regulatory approvals and satisfaction of other customary closing conditions.

The Company will contribute the ITG Derivatives entity, including its broker-dealer license and professional trader client base with revenues of $3.8 million during the nine months ended September 30, 2017, along with certain derivatives-focused software and technology for an initial minority stake of approximately 20%. OpTech will contribute

the management team, a retail-focused trading and analytics platform and capital.

During the three months ended September 30, 2017, the Company deemed the remaining value of a customer intangible asset recorded in ITG Derivatives of $0.3 million fully impaired and incurred legal fees related to the establishment of the Matrix venture of $0.8 million.

Upon closing, the Company will reflect the carrying value of the net assets contributed to the Matrix venture, currently estimated at approximately $2 million, as an investment in minority interest and will account for its share of results under the equity method.

The Company determined that the pending contribution of ITG Derivatives does not meet the requirements to be treated as a discontinued operation. As such, the results of ITG Derivatives through the closing date of the venture will be included in continued operations on the Condensed Consolidated Statement of Operations in the U.S. Operations segment.

(4) Restructuring Charges

2016 Restructuring

As part of an end-to-end review of its business in 2016, the Company determined that its strategy is to increasingly focus its resources on its core capabilities in liquidity, execution, analytics and workflow technology solutions. To that end, in 2016, the Company implemented restructuring plans to (i) reduce headcount in its single stock sales trading and sales organizations, (ii) close its U.S. matched-book securities lending operations and its Canadian arbitrage trading desk and (iii) identify additional annual cost savings from management delayering and the elimination of certain positions.

Activity and liability balances recorded as part of the restructuring plan through September 30, 2017 are as follows (dollars in thousands):

		Amount
Balance at December 31, 2016	$	3,157
Utilized - cash (primarily severance related)		(2,950)
Accrual adjustment		(18)
Currency translation		27
Balance at September 30, 2017	$	216

The payment of the remaining accrued costs is expected to continue through December 2017.

(5) Cash Restricted or Segregated Under Regulations and Other

Cash restricted or segregated under regulations and other represents (i) a special reserve bank account for the exclusive benefit of customers (“Special Reserve Bank Account”) maintained by ITG Inc. in accordance with Rule 15c3-3 of the Securities Exchange Act of 1934, as amended (“Customer Protection Rule”), or agreements for proprietary accounts of broker dealers (“PABs”), (ii) funds on deposit for Canadian and European trade clearing and settlement activity, (iii) segregated balances under a collateral account control agreement for the benefit of certain customers, and (iv) funds relating to the securitization of bank guarantees supporting the Company’s Australian and French leases.

(6) Securities Owned and Sold, Not Yet Purchased

The following is a summary of securities owned and securities sold, not yet purchased (dollars in thousands):

	Securities Owned		Securities Sold, Not Yet Purchased	
	September 30, 2017	December 31, 2016	September 30, 2017	December 31, 2016
Corporate stocks - trading securities	$ 44	$ 244	$ 42	$ 249
Mutual funds	1,703	2,313	—	—
Total	$ 1,747	$ 2,557	$ 42	$ 249

Trading securities owned and sold, not yet purchased primarily consists of temporary positions obtained in the normal course of agency trading activities, including positions held in connection with the creation and redemption of exchange-traded funds on behalf of clients.

(7) Income Taxes

Under ASC 740, *Income Taxes*, the Company regularly assesses the need for a valuation allowance against its deferred taxes. In making that assessment, both positive and negative evidence is considered related to the likelihood of realization of the deferred tax assets to determine, based on the weight of available evidence, whether it is more-likely than not that some or all of its deferred tax assets will not be realized. In evaluating the need for a valuation allowance, the Company considered its cumulative pre-tax loss in the U.S. jurisdiction over the previous three years as a significant piece of negative evidence. Prevailing accounting guidance limits the ability to consider other subjective evidence to support deferred tax assets, such as projections of future profits, when objective verifiable evidence such as a cumulative loss exists. As a result, the Company recorded a full valuation allowance against its U.S. deferred tax assets, giving rise to an additional non-cash charge of $48.1 million during the three months ended September 30, 2017, which included $42.3 million related to deferred tax assets that existed at June 30, 2017. At September 30, 2017, the net deferred tax assets of $4.7 million related to non-U.S. jurisdictions on the Condensed Consolidated Statement of Financial Condition.

The components of the Company's net deferred tax asset are as follows (dollars in thousands):

	September 30, 2017	December 31, 2016
Deferred tax assets:		
Compensation and benefits	$ 7,940	$ 9,715
Net operating loss and capital loss carryover	30,139	19,755
Share-based compensation	5,851	6,824
Research and development credits	6,843	7,550
Foreign tax credits	14,643	12,660
Tax benefits on uncertain tax positions	1,315	1,351
Goodwill and definite-lived intangibles	8,622	10,347
Depreciation	1,108	1,167
Other	5,998	5,259
Total deferred tax assets	82,459	74,628
Less: valuation allowance	(69,419)	(20,979)
Total deferred tax assets, net of valuation allowance	13,040	53,649
Deferred tax liabilities:		
Depreciation	—	—
Capitalized software	(7,693)	(12,174)
Indefinite-lived intangibles	(2,448)	(2,332)
Other	(684)	(455)
Total deferred tax liabilities	(10,825)	(14,961)
Net deferred tax assets	$ 2,215	$ 38,688

A tax benefit from an uncertain tax position may be recognized only if it is more-likely than not that the tax position will be sustained on examination by the taxing authorities. The tax benefits recognized in the financial

statements from such a position are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate resolution.

The Company had reserves for unrecognized tax benefits of $7.9 million at September 30, 2017 and $7.4 million at December 31, 2016. The Company had accrued interest expense related to tax reserves of $1.3 million, net of related tax effects, at both September 30, 2017 and December 31, 2016.

(8) Goodwill and Other Intangibles

Goodwill

The following table presents the changes in the carrying amount of goodwill by the Company's European Operations segment for the nine months ended September 30, 2017 (dollars in thousands):

	Total
Balance at December 31, 2016	$ 10,102
2017 Activity:	
Currency translation adjustment	860
Balance at September 30, 2017	$ 10,962

Other Intangible Assets

Acquired other intangible assets consisted of the following at September 30, 2017 and December 31, 2016 (dollars in thousands):

	September 30, 2017		December 31, 2016		
	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization	Useful Lives (Years)
Trade name	$ 8,528	$ —	$ 8,518	$ —	—
Customer-related intangibles	10,199	6,072	10,358	5,584	16.9
Proprietary software	23,306	22,059	23,165	21,456	8.4
Trading rights	339	—	339	—	—
Other	50	—	50	—	—
Total	$ 42,422	$ 28,131	$ 42,430	$ 27,040	

At September 30, 2017, indefinite-lived intangibles not subject to amortization amounted to $8.9 million, of which $8.4 million related to the POSIT trade name.

Amortization expense for definite-lived intangibles was $0.3 million and $1.0 million for the three and nine months ended September 30, 2017, respectively, compared with $0.3 million and $1.5 million in the respective prior year periods. These amounts are included in other general and administrative expense in the Condensed Consolidated Statements of Operations.

During the three months ended September 30, 2017, the Company deemed the remaining value of a customer intangible asset recorded in ITG Derivatives of $0.3 million fully impaired.

The following table represents the changes in the carrying amount of net intangible assets for the nine months ended September 30, 2017 (dollars in thousands):

	Total
Balance at December 31, 2016	$ 15,390
2017 Activity:	
Amortization	(977)
Impairment charge	(325)
Currency translation adjustment	203
Balance at September 30, 2017	$ 14,291

(9) Receivables and Payables

Receivables from, and Payables to, Brokers, Dealers and Clearing Organizations

The following is a summary of receivables from, and payables to, brokers, dealers and clearing organizations (dollars in thousands):

	Receivables from		Payables to	
	September 30, 2017	December 31, 2016	September 30, 2017	December 31, 2016
Broker-dealers	$ 177,925	$ 147,116	$ 78,059	$ 56,894
Clearing organizations	12,060	5,117	7,542	8,096
Securities borrowed*	18,458	374	—	—
Securities loaned	—	—	21,027	35,198
Allowance for doubtful accounts	(845)	(313)	—	—
Total	$ 207,598	$ 152,294	$ 106,628	$ 100,188

* See *Securities Borrowed and Loaned* below.

Receivables from, and Payables to, Customers

The following is a summary of receivables from, and payables to, customers (dollars in thousands):

	Receivables from		Payables to	
	September 30, 2017	December 31, 2016	September 30, 2017	December 31, 2016
Customers	$ 94,289	$ 55,006	$ 44,125	$ 12,272
Allowance for doubtful accounts	(464)	(520)	—	—
Net	$ 93,825	$ 54,486	$ 44,125	$ 12,272

Securities Borrowed and Loaned

In the second quarter 2016, the Company closed its U.S. matched-book securities lending operations. At September 30, 2017, the balances for securities borrowed and securities loaned relate to customer settlement activities.

The gross amounts of interest earned on cash provided to counterparties as collateral for securities borrowed, and interest incurred on cash received from counterparties as collateral for securities loaned within the U.S. matched-book operations prior to the wind-down of all balances, and the resulting net amount included in other revenue on the Condensed Consolidated Statements of Operations for the three and nine months ended September 30, 2016 were as follows (dollars in thousands):

	Three Months Ended September 30, 2016	Nine Months Ended September 30, 2016
Interest earned	$ 3	$ 1,961
Interest incurred	(3)	(1,132)
Net	$ —	$ 829

Deposits paid for securities borrowed and deposits received for securities loaned are recorded at the amount of cash collateral advanced or received. Deposits paid for securities borrowed transactions require the Company to deposit cash with the lender. With respect to deposits received for securities loaned, the Company receives collateral in the form of cash in an amount generally in excess of the market value of the securities loaned. The Company monitors the market value of the securities borrowed and loaned on a daily basis, with additional collateral obtained or refunded, as necessary.

The Company's securities borrowing and lending is generally done under industry standard agreements ("Master Securities Lending Agreements") that may allow, following an event of default by either party, the prompt close-out of all transactions (including the liquidation of securities held) and the offsetting of obligations to return cash or securities, as the case may be, by the non-defaulting party. Events of default under the Master Securities Lending Agreements generally include, subject to certain conditions: (i) failure to timely deliver cash or securities as required under the transaction, (ii) a party's insolvency, bankruptcy, or similar proceeding, (iii) breach of representation, and (iv) a material breach of the agreement. The counterparty that receives the securities in these transactions generally has unrestricted access in its use of the securities. For financial statement purposes, the Company does not offset securities borrowed and securities loaned.

The following table summarizes the transactions under certain Master Securities Lending Agreements that may be eligible for offsetting if an event of default occurred and a right of offset was legally enforceable (dollars in thousands):

	Gross Amounts of Recognized Assets/ (Liabilities)	Gross Amounts Offset in the Consolidated Statement of Financial Condition	Net Amounts Presented in the Consolidated Statement of Financial Condition	Collateral Received or Pledged (including Cash)	Net Amount
As of September 30, 2017:					
Deposits paid for securities borrowed	$ 18,458	$ —	$ 18,458	$ 18,458	$ —
Deposits received for securities loaned	(21,027)	—	(21,027)	(20,862)	(165)
As of December 31, 2016:					
Deposits paid for securities borrowed	$ 374	$ —	$ 374	$ 374	$ —
Deposits received for securities loaned	(35,198)	—	(35,198)	(34,245)	(953)

(10) Accounts Payable and Accrued Expenses

The following is a summary of accounts payable and accrued expenses (dollars in thousands):

	September 30, 2017	December 31, 2016
Accrued research payables	$ 54,627	$ 45,826
Accrued compensation and benefits	29,993	34,526
Accrued settlement costs	—	24,450
Accrued rent	19,037	19,061
Trade payables	19,454	14,474
Deferred revenue	6,779	7,643
Deferred compensation	2,724	3,262
Accrued restructuring	216	3,157
Accrued transaction processing	2,889	3,230
Other	23,212	18,714
Total	$ 158,931	$ 174,343

(11) Borrowings

Short-term Bank Loans

The Company's international securities clearance and settlement activities are funded with operating cash or with short-term bank loans in the form of overdraft facilities. At September 30, 2017, there was $102.0 million outstanding under these facilities at a weighted average interest rate of approximately 1.92% associated with international settlement activities.

In the U.S., securities clearance and settlement activities are funded with operating cash, securities loaned or with short-term bank loans under a committed credit agreement described below.

ITG Inc., as borrower, and Investment Technology Group, Inc. ("Parent Company"), as guarantor, maintained a $150 million 364-day revolving credit agreement with a syndicate of banks and JPMorgan Chase Bank, N.A., as

Administrative Agent, that matured in January 2017. On January 27, 2017, ITG Inc., as borrower, and Parent Company, as guarantor, entered into a new $150 million 364-day revolving credit agreement, dated as of January 27, 2017 (the “Credit Agreement”) with a syndicate of banks and JPMorgan Chase Bank, N.A., as Administrative Agent. The agreement expires on January 26, 2018. At September 30, 2017, there were no amounts outstanding under the Credit Agreement.

Term Debt

Term debt is comprised of the following (dollars in thousands):

	September 30, 2017	December 31, 2016
Term loans	$ 2,404	$ 3,098
Obligations under capital lease	—	3,269
Total	$ 2,404	$ 6,367

On December 30, 2015, the Parent Company entered into a five year, $3.6 million note and security agreement with Hewlett-Packard Financial Services (“H-P Loan”), under which purchases of new server equipment, software license fees, maintenance fees and fees for other services were financed. The loan principal is payable in twenty quarterly installments of $195,000 beginning in April 2016 and accrues interest at 2.95%. At September 30, 2017 and December 31, 2016, there was $2.4 million and $3.1 million, respectively, outstanding under the H-P Loan.

On August 10, 2012, the Parent Company entered into a $25.0 million master lease facility with BMO Harris Equipment Finance Company (“BMO”) to finance equipment and construction expenditures related to the build-out of the Company’s new headquarters in lower Manhattan. The original amount borrowed of $21.2 million had a 3.39% fixed-rate term financing structured as a capital lease with a 48-month term that began upon the substantial completion of the build-out, at the end of which Parent Company may purchase the underlying assets for $1. At December 31, 2016, there was $3.3 million outstanding under the BMO facility. The BMO lease facility was fully paid on July 30, 2017.

(12) Earnings Per Share

The following is a reconciliation of the basic and diluted earnings per share computations (amounts in thousands, except per share amounts):

	September 30, 2017	September 30, 2016
Three Months Ended		
Net loss for basic and diluted loss per share	$ (46,967)	$ (23,911)
Shares of common stock and common stock equivalents:		
Average common shares used in basic computation	33,105	32,725
Effect of dilutive securities	—	—
Average common shares used in diluted computation	33,105	32,725
Loss per share:		
Basic	$ (1.42)	$ (0.73)
Diluted	$ (1.42)	$ (0.73)
Nine Months Ended		
Net loss for basic and diluted loss per share	$ (37,022)	$ (31,634)
Shares of common stock and common stock equivalents:		
Average common shares used in basic computation	33,060	33,006
Effect of dilutive securities	—	—
Average common shares used in diluted computation	33,060	33,006
Loss per share:		
Basic	$ (1.12)	$ (0.96)
Diluted	$ (1.12)	$ (0.96)

There were no anti-dilutive equity awards for the three and nine month periods ended September 30, 2017 and 2016 due to the fact that the Company recorded losses.

(13) Accumulated Other Comprehensive Income

The components and allocated tax effects of accumulated other comprehensive income for the three and nine month periods ended September 30, 2017 and 2016 are as follows (dollars in thousands):

Three Months Ended September 30, 2017	
Balance at June 30, 2017	$ (27,221)
Other comprehensive income	5,437
Balance at September 30, 2017	$ (21,784)
Three Months Ended September 30, 2016	
Balance at June 30, 2016	$ (24,274)
Other comprehensive loss before reclassifications	(2,685)
Amounts reclassified from accumulated other comprehensive loss (1)	(1,066)
Net current-period other comprehensive loss	(3,751)
Balance at September 30, 2016	$ (28,025)
Nine Months Ended September 30, 2017	
Balance at December 31, 2016	$ (33,977)
Other comprehensive income	12,193
Balance at September 30, 2017	$ (21,784)
Nine Months Ended September 30, 2016	
Balance at December 31, 2015	$ (19,495)
Other comprehensive loss before reclassifications	(7,464)
Amounts reclassified from accumulated other comprehensive loss (1)	(1,066)
Net current-period other comprehensive loss	(8,530)
Balance at September 30, 2016	$ (28,025)

(1) In the third quarter of 2016, the Company substantially completed the liquidation of its investment in its Israel entity that ceased operations in December 2013. During the Company's period of ownership and through December 2013, the Company had $1.1 million in accumulated foreign exchange translation gains as a component of equity, which have been reclassified as a gain that reduced other general and administrative expenses in the Condensed Consolidated Statement of Operations.

Deferred taxes have not been provided on the cumulative undistributed earnings of foreign subsidiaries or the cumulative translation adjustment related to those investments since there is currently no need to repatriate funds from certain foreign subsidiaries to the U.S. by way of dividends.

(14) Net Capital Requirement

ITG Inc., AlterNet and ITG Derivatives are subject to the SEC's Uniform Net Capital Rule (Rule 15c3-1), which requires the maintenance of minimum net capital. ITG Inc. has elected to use the alternative method permitted by Rule 15c3-1, which requires that ITG Inc. maintain minimum net capital equal to the greater of $1.0 million or 2% of aggregate debit balances arising from customer transactions, as defined. AlterNet and ITG Derivatives have elected to use the basic method permitted by Rule 15c3-1, which requires that they each maintain minimum net capital equal to the greater of 6 2/3% of aggregate indebtedness or $100,000. Dividends or withdrawals of capital cannot be made if capital is needed to comply with regulatory requirements.

Net capital balances and the amounts in excess of required net capital at September 30, 2017 for the U.S. Operations are as follows (dollars in thousands):

	Net Capital	Excess
U.S. Operations		
ITG Inc.	$ 84,131	$ 83,131
AlterNet	4,550	4,450
ITG Derivatives	723	623

As of September 30, 2017, ITG Inc. had $8.9 million of cash in a Special Reserve Bank Account for the benefit of customers under the Customer Protection Rule pursuant to SEC Rule 15c3-3, *Computation for Determination of Reserve Requirements* and $2.5 million under PABs.

In addition, the Company's Canadian, European and Asia Pacific Operations have subsidiaries with regulatory capital requirements. The regulatory net capital balances and amount of regulatory capital in excess of the minimum requirements applicable to each business at September 30, 2017, is summarized in the following table (dollars in thousands):

	Net Capital	Excess
Canadian Operations		
Canada	$ 25,878	$ 25,478
European Operations		
Ireland	75,352	41,882
U.K.	2,019	1,156
Asia Pacific Operations		
Australia	25,082	8,560
Hong Kong	6,212	5,723
Singapore	1,075	1,001

In the first quarter of 2017, the Company migrated from self-clearing in Hong Kong to the use of a third-party clearer who settles trades executed in Hong Kong on behalf of ITG Australia Limited. During the second quarter of 2017, the Company received regulatory approval for a change in the method used to determine its capital requirements in Europe following an extensive review the Company initiated with its local regulator.

(15) Segment Reporting

The Company is organized into four geographic operating segments through which the Company's chief operating decision maker manages the Company's business. The U.S., Canadian, European and Asia Pacific Operations segments provide the following categories of products and services:

- Execution Services — includes (a) liquidity matching through POSIT, (b) self-directed trading using algorithms (including single stocks and portfolio lists) and smart routing, (c) portfolio trading and single stock sales trading desks providing execution expertise and (d) futures and options trading

- Workflow Technology — includes trade order and execution management software applications in addition to network connectivity

- Analytics — includes (a) tools enabling portfolio managers and traders to improve pre-trade, real-time and post-trade execution performance, (b) portfolio construction and optimization decisions and (c) securities valuation

The accounting policies of the reportable segments are the same as those described in Note 2, *Summary of Significant Accounting Policies,* in the Company's Annual Report on Form 10-K for the year ended December 31, 2016. The Company allocates resources to, and evaluates the performance of, its reportable segments based on income or loss before income tax expense (benefit). Consistent with the Company's resource allocation and operating performance evaluation approach, the effects of inter-segment activities are eliminated except in limited circumstances where certain technology related costs are allocated to a segment to support that segment's revenue producing activities. Commissions and fees revenue for trade executions and commission share revenues are principally attributed to each segment based upon the location of execution of the related transaction except that commissions and fees for trade executions by Canadian clients in the U.S. market are attributed to the Canadian Operations instead of the U.S. Operations. Recurring revenues are principally attributed based upon the location of the client using the respective service.

Regional segment results exclude the impact of Corporate activity, which is presented separately and includes investment income from treasury activity, certain non-operating revenues and other gains as well as costs not associated with operating the businesses within the Company's regional segments. These costs include, among others, (a) the costs

of being a public company, such as certain staff costs, a portion of external audit fees, and reporting, filing and listing costs, (b) intangible asset amortization, (c) interest expense, (d) professional fees associated with the Company's global transfer pricing structure, (e) foreign exchange gains or losses and (f) certain non-operating expenses.

A summary of the segment financial information is as follows (dollars in thousands):

	U.S. Operations	Canadian Operations	European Operations	Asia Pacific Operations	Corporate	Consolidated
Three Months Ended September 30, 2017						
Total revenues	$ 47,403	$ 15,055	$ 36,256	$ 15,327	$ 490	$ 114,531
(Loss) income before income tax (benefit) expense (1)	(8,994)	1,405	8,922	2,938	(6,226)	(1,955)
Identifiable assets	338,000	75,332	323,142	57,571	—	794,045
Three Months Ended September 30, 2016						
Total revenues	$ 48,774	$ 13,719	$ 28,894	$ 12,502	$ 296	$ 104,185
(Loss) income before income tax (benefit) expense (2) (3) (4) (5)	(8,528)	1,496	4,709	901	(26,376)	(27,798)
Identifiable assets	418,357	108,647	328,731	61,367	—	917,102
Nine Months Ended September 30, 2017						
Total revenues	$ 153,559	$ 47,521	$ 111,707	$ 42,990	$ 1,170	$ 356,947
(Loss) income before income tax (benefit) expense (1)	(20,628)	8,034	30,950	6,318	(17,731)	6,943
Nine Months Ended September 30, 2016						
Total revenues	$ 173,677	$ 45,605	$ 92,236	$ 34,539	$ 3,406	$ 349,463
(Loss) income before income tax (benefit) expense (2) (3) (4) (5) (6) (7)	(9,297)	7,616	16,672	208	(56,293)	(41,094)

The following notes relate to Corporate activity:

(1) In the third quarter of 2017, the Company deemed the remaining value of a customer intangible asset recorded in ITG Derivatives of $0.3 million fully impaired and incurred legal fees related to the establishment of the Matrix venture of $0.8 million.

(2) In the third quarter of 2016, the Company accrued $22.1 million for a settlement with the SEC with respect to an inquiry involving discontinued activity in pre-released American Depositary Receipts and incurred legal fees related to this matter of $1.6 million.

(3) The Company's current CEO was granted cash and stock awards upon the commencement of his employment in January 2016, a significant portion of which replaced awards he forfeited at his former employer. The amount expensed for these awards during the three and nine month periods ended September 30, 2016 was $0.5 million and $3.8 million, respectively. Due to U.S. tax regulations, only a small portion of the amount expensed for these awards during the three and nine months ended September 30, 2016 was eligible for a tax deduction.

(4) In the third quarter of 2016, the Company substantially completed the liquidation of its investment in its Israel entity that ceased operations in December 2013. During the Company's period of ownership and through December 2013, the Company had $1.1 million in accumulated foreign exchange translation gains as a component of equity, which have been reclassified as a gain that reduced other general and administrative expenses in the Condensed Consolidated Statement of Operations.

(5) During the nine month period ended September 30, 2016, the Company incurred a charge of $4.8 million, net of an insurance recovery of $0.5 million, to settle an arbitration case with its former CEO and incurred legal fees of $2.7 million. During the three months ended September 30, 2016, the Company recorded a reimbursement of $0.9 million of these legal fees from its insurance carrier. The Company settled the arbitration case in June 2016.

(6) The Company received insurance proceeds of $2.4 million during the first half of 2016 from its corporate insurance carrier to settle a claim for lost profits arising from an August 2015 outage in its outsourced primary data center in the U.S. Additionally, the Company generated a nominal gain on the completion of the sale of its investment research operations in May 2016.

(7) During the first half of 2016, the Company incurred $4.4 million in restructuring charges related to (a) the reduction in its single stock sales trading and sales organizations and (b) the closing of its U.S. matched-book securities lending operations and its Canadian arbitrage trading desk.

The table below details the total revenues for the categories of products and services provided by the Company (dollars in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Revenues:				
Execution Services	$ 80,141	$ 70,240	$ 253,225	$ 243,441
Workflow Technology	22,553	22,723	69,005	69,410
Analytics	11,347	10,926	33,547	33,206
Corporate (non-product)	490	296	1,170	3,406
Total Revenues	$ 114,531	$ 104,185	$ 356,947	$ 349,463

(16) Dividend Program

During the three months ended September 30, 2017, the Board of Directors declared, and the Company paid, a quarterly dividend of $0.07 per share totaling $2.3 million, including less than $0.1 million in stock under the Company's equity award plans. Dividends declared and paid during the nine months ended September 30, 2017 totaled $0.21 per share for $7.0 million, including less than $0.1 million in stock under the Company's equity award plans.

(17) Off-Balance Sheet Risk and Concentration of Credit Risk

The Company is a member of various U.S. and non-U.S. exchanges and clearing houses that trade and clear, respectively, equities and/or derivative contracts. Associated with the Company's membership, the Company may be required to pay a proportionate share of financial obligations of another member who may default on its obligations to the exchanges or the clearing house. While the rules governing different exchange or clearing house memberships vary, in general, the Company's obligations would arise only if the exchanges and clearing houses had previously exhausted other remedies. The maximum potential payout under these memberships cannot be estimated. The Company has not recorded any contingent liability in the condensed consolidated financial statements for these agreements and believes that any potential requirement to make payments under these agreements is remote. In the ordinary course of business, the Company guarantees obligations of subsidiaries which may arise from third-party clearing relationships and trading counterparties. The activities of the subsidiaries covered by these guarantees are included in the Company's condensed consolidated financial statements. The Company is also subject to indemnification provisions within agreements with third-party clearing brokers in certain jurisdictions whereby the Company is obligated to reimburse the clearing broker, without limit, for losses incurred due to a counterparty's failure to satisfy its contractual obligations.

The Company's customer financing and securities settlement activities may require the Company to pledge customer securities as collateral in support of various secured financing transactions such as bank loans. In the event the financing counterparty is unable to meet its contractual obligation to return customer securities pledged as collateral, the Company may be exposed to the risk of acquiring the securities at prevailing market prices in order to satisfy its customer obligations. The Company controls this risk by monitoring the market value of securities pledged on a daily basis and by requiring adjustments of collateral levels in the event of excess market exposure.

Financial instruments that potentially subject the Company to concentrations of credit risk are primarily cash and cash equivalents, securities owned at fair value, receivables from brokers, dealers and clearing organizations and receivables from customers. Cash and cash equivalents and securities owned, at fair value are deposited with high credit quality financial institutions.

In connection with customer settlement activities, the Company loans securities temporarily to other brokers. The Company receives cash as collateral for the securities loaned. Increases in security prices may cause the market value of the securities loaned to exceed the amount of cash received as collateral. In the event the counterparty to these transactions does not return the loaned securities, the Company may be exposed to the risk of acquiring the securities at prevailing market prices in order to satisfy its client obligations. The Company controls this risk by requiring credit approvals for counterparties, by monitoring the market value of securities loaned on a daily basis, and by requiring additional cash as collateral or returning collateral when necessary.

The Company also borrows securities temporarily from other brokers in connection with customer settlement activities. The Company deposits cash as collateral for the securities borrowed. Decreases in security prices may cause

the market value of the securities borrowed to fall below the amount of cash deposited as collateral. In the event the counterparty to these transactions does not return collateral, the Company may be exposed to the risk of selling the securities at prevailing market prices. The Company controls this risk by requiring credit approvals for counterparties, by monitoring the collateral values on a daily basis, and by depositing additional collateral with counterparties or receiving cash when deemed necessary.

The Company may at times maintain inventories in equity securities on both a long and short basis. Whereas long inventory positions represent the Company's ownership of securities, short inventory positions represent obligations of the Company to deliver specified securities at a contracted price, which may differ from market prices prevailing at the time of completion of the transaction. Accordingly, both long and short inventory positions may result in losses or gains to the Company as market values of securities fluctuate. To mitigate the risk of losses, long and short positions are marked to market daily and are continuously monitored by the Company.

(18) Contingencies – Legal Matters

On January 12, 2017, the Company reached a final settlement with the SEC to resolve the SEC's inquiry into ITG Inc.'s activity with respect to pre-released American Depositary Receipts ("ADRs"), substantially all of which related to ITG Inc.'s matched-book operations. ITG Inc.'s activity in pre-released ADRs was discontinued in the fourth quarter of 2014, with all outstanding transactions completely wound down by the end of 2014. According to the terms of the settlement, the Company paid an aggregate amount of $24.5 million in January 2017, which includes disgorgement of $15.1 million, prejudgment interest of $1.9 million and a civil monetary penalty of $7.5 million. The Company had fully reserved the $24.5 million as of December 31, 2016.

The Company is not a party to any pending legal proceedings other than claims and lawsuits arising in the ordinary course of business, except a putative class action lawsuit and a derivative action have been filed with respect to the Company and certain of its current and former directors and/or executives in connection with the Company's announcement of the SEC matter described in the following paragraph (and other related actions could be filed).

On August 12, 2015, the Company reached a final settlement with the SEC in connection with the SEC's investigation into a proprietary trading pilot operated within AlterNet for sixteen months in 2010 through mid-2011. The investigation was focused on customer disclosures, Form ATS regulatory filings and customer information controls relating to the pilot's trading activity, which included (a) crossing against sell-side clients in POSIT and (b) violations of Company policy and procedures by a former employee. These violations principally involved information breaches for a period of several months in 2010 regarding sell-side parent orders flowing into ITG's algorithms and executions by all customers in non-POSIT markets that were not otherwise available to ITG clients. According to the terms of the settlement, the Company paid an aggregate amount of $20.3 million, representing a civil penalty of $18 million, disgorgement of approximately $2.1 million in trading revenues and prejudgment interest of approximately $0.25 million.

In connection with the announcement of the SEC investigation regarding AlterNet, two putative class action lawsuits were filed with respect to the Company and certain of its current and former executives and have since been consolidated into a single action captioned *In re Investment Technology Group, Inc. Securities Litigation* before the U.S. District Court for the Southern District of New York. The complaint alleges, among other things, that the defendants made material misrepresentations or omitted to disclose material facts concerning, among other subjects, the matters that were the subject of the SEC settlement regarding AlterNet and the SEC investigation that led to the SEC settlement. The complaint seeks an unspecified amount of damages under the federal securities laws. On April 26, 2017, the court granted in part and denied in part the Company's motion to dismiss the complaint and granted the plaintiff leave to file a motion to amend its complaint. On June 12, 2017, the plaintiff filed a motion to amend its complaint against certain of the individual defendants who were dismissed from the case in the court's April opinion.

On November 27, 2015, a purported shareholder of the Company filed a shareholder derivative action captioned *Watterson v. Gasser et al.* against eleven current or former officers and directors of the Company in the Supreme Court for the State of New York. The Company is named as a nominal defendant, and the plaintiff purports to seek recovery on its behalf. The complaint generally alleges that the individual defendants breached their fiduciary duties to the Company in connection with the matters that were the subject of the SEC settlement regarding AlterNet.

While the Company cannot predict the outcome of these lawsuits, the Company intends to defend them as appropriate. No reserve has been established for these lawsuits since the Company is unable to provide a reasonable estimate of any potential liability given the stage of such proceedings. The Company believes, based on information currently available, that the outcome of these lawsuits, individually or in the aggregate, will not likely have a material adverse effect on its consolidated financial position. In light of the inherent uncertainties of such proceedings, an adverse outcome of one or more of such proceedings may have a material impact on the results of operations for any particular period.

In addition to the above proceedings, the Company's broker-dealer subsidiaries are subject to, or involved in, investigations and other proceedings by government agencies and self-regulatory organizations, with respect to which the Company is cooperating. Such investigations and other proceedings may result in judgments, settlements, fines, disgorgements, penalties, injunctions or other relief. Given the inherent uncertainties and the current stage of these inquiries, and the Company's ongoing reviews, the Company is unable to predict the outcome of these matters at this time.

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

The following discussion and analysis should be read in conjunction with our condensed consolidated financial statements, including the notes thereto.

Overview

ITG is a global financial technology company that helps leading brokers and asset managers improve returns for investors around the world. ITG empowers traders to reduce the end-to-end cost of implementing investments via liquidity, execution, analytics and workflow technology solutions. ITG has offices in Asia Pacific, Europe and North America and offers execution services in more than 50 countries.

Our business is organized into four reportable operating segments: U.S. Operations, Canadian Operations, European Operations and Asia Pacific Operations (see Note 15, *Segment Reporting*, to the condensed consolidated financial statements). These four operating segments provide the following categories of products and services:

- Execution Services — includes (a) liquidity matching through POSIT, (b) self-directed trading using algorithms (including single stocks and portfolio lists) and smart routing, (c) portfolio trading and single stock sales trading desks providing execution expertise and (d) futures and options trading

- Workflow Technology — includes trade order and execution management software applications in addition to network connectivity

- Analytics — includes (a) tools enabling portfolio managers and traders to improve pre-trade, real-time and post-trade execution performance, (b) portfolio construction and optimization decisions and (c) securities valuation

Regional segment results exclude the impact of Corporate activity, which is presented separately and includes investment income from treasury activity, certain non-operating revenues and other gains as well as costs not associated with operating the businesses within the Company's regional segments. These costs include, among others, (a) the costs of being a public company, such as certain staff costs, a portion of external audit fees, and reporting, filing and listing costs, (b) intangible asset amortization, (c) interest expense, (d) professional fees associated with our global transfer pricing structure, (e) foreign exchange gains or losses and (f) certain non-operating expenses.

Sources of Revenues

Revenues from our products and services are generated from commissions and fees, recurring (subscriptions) and other sources.

Commissions and fees are derived primarily from (i) commissions charged for trade execution services, (ii) income generated on net executions, whereby equity orders are filled at different prices within or at the National Best Bid and Offer ("NBBO") and (iii) commission sharing arrangements between ITG Net (our private value-added FIX-based financial electronic communications network) and third-party brokers and alternative trading systems whose trading products are made available to our clients on our order management system ("OMS") and execution management system ("EMS") applications in addition to commission sharing arrangements for our Single Ticket Clearing service and our RFQ-hub request-for-quote service. Because commissions are earned on a per-transaction basis, such revenues fluctuate from period to period depending on (a) the volume of securities traded through our services in the U.S. and Canada, (b) the contract value of securities traded in Europe and the Asia Pacific region and (c) our commission rates. Certain factors that affect our volumes and contract values traded include: (i) macro trends in the global equities markets that affect overall institutional equity trading activity, (ii) competitive pressure, including pricing, created by the existence of electronic execution competitors and (iii) potential changes in market structure in the U.S. and other regions. In addition to share volume, revenues from net executions are also impacted by the width of spreads within the NBBO. Trade orders are delivered to us from our OMS and EMS products and other vendors' products, direct computer-to-computer links to customers through ITG Net and third-party networks and phone orders from our customers.

Recurring revenues are derived from the following primary sources: (i) connectivity fees generated through ITG Net for the ability of the sell-side to receive orders from, and send indications of interest to, the buy-side and for the sell-side to receive requests-for-quotes through RFQ-hub, (ii) software and analytical products and services and (iii) maintenance and customer technical support for our OMS. Prior to the divestiture of our remaining investment research operations in May 2016, recurring revenues included subscriptions from these operations.

Other revenues include: (1) for historical periods up until April 2016, income from principal trading in Canada, including within our arbitrage trading desk, (2) the net spread on foreign exchange transactions executed on a principal basis to facilitate equity trades by clients in different currencies, as well as on other foreign exchange transactions unrelated to equity trades, (3) for historical periods up until June 2016, the net interest spread earned on matched-book securities borrowed and loaned transactions, (4) non-recurring consulting services, such as one-time implementation and customer training related activities, (5) investment income from treasury activity, (6) interest income on securities borrowed in connection with customers' settlement activities, (7) market gains/losses resulting from temporary positions in securities assumed in the normal course of agency trading (including trade errors and client trade accommodations) and (8) non-recurring gains and losses such as divestitures.

As a result of the new revenue recognition standard (see discussion in *New Accounting Pronouncements* below), which we intend to adopt on January 1, 2018, we have identified two key accounting changes that will affect the timing of revenue recognition as it relates to bundled commission arrangements and fees for licenses of functional intellectual property. We are currently assessing the financial impact of these accounting changes but expect (1) a deferral of revenues generated in the first half of the year for commissions attributable to analytics products under bundled arrangements that will be recognized over the course of the year as the performance obligations for those analytics products are satisfied and (2) an acceleration of license fee revenues to the delivery date for software provided for a specified period. These changes only relate to the timing of when revenue is recognized and have no effect on the underlying transaction price of the products and services we perform. For more information on our evaluation of the revenue recognition standard and its impact on our financial statements, refer to *New Accounting Pronouncements* below.

Expenses

Compensation and employee benefits, our largest expense, consist of salaries and wages, incentive compensation, employee benefits and taxes. Incentive compensation fluctuates based on revenues, profitability and other measures, taking into account the competitive environment for key talent. Incentive compensation includes a combination of cash and deferred share-based awards. Only the cash portion of incentive compensation is a variable expense in the current period. As a result, our ratio of compensation expense to revenues may fluctuate from period to period based on revenue levels.

Transaction processing expense consists of costs to access various third-party execution destinations and to process, clear and settle transactions. These costs tend to fluctuate with share and trade volumes, the mix of trade execution services used by clients and the rates charged by third parties.

Occupancy and equipment expense consists primarily of rent and utilities related to leased premises, office equipment and depreciation and amortization of fixed assets and leasehold improvements.

Telecommunications and data processing expenses primarily consist of costs for obtaining market data, telecommunications services and systems maintenance.

Other general and administrative expenses primarily include software amortization, professional (including legal) fees, consulting, business development and intangible asset amortization.

Interest expense consists primarily of costs associated with outstanding debt and credit facilities.

Non-GAAP Financial Measures

To supplement our financial information presented in accordance with accounting principles generally accepted in the U.S. ("U.S. GAAP"), management uses certain "non-GAAP financial measures" as such term is defined in Regulation G promulgated by the SEC. Generally, a non-GAAP financial measure is a numerical measure of a

company's operating performance, financial position or cash flows that excludes or includes amounts that are included in, or excluded from, the most directly comparable measure calculated and presented in accordance with U.S. GAAP. Management believes the presentation of these measures provides investors with greater transparency and supplemental data relating to our financial condition and results of operations, and therefore a more complete understanding of factors affecting our business than U.S. GAAP measures alone. In addition, management believes the presentation of these measures is useful to investors for period-to-period comparison of results as the items described below reflect certain unique and/or non-operating items such as acquisitions, divestitures, restructuring charges, write-offs and impairments, charges associated with litigation or regulatory matters together with related expenses or items outside of management's control.

Adjusted revenues, adjusted expenses, adjusted pre-tax (loss) income, adjusted income tax expense (benefit) and adjusted net (loss) income, together with related per share amounts, are non-GAAP performance measures that we believe are useful to assist investors in gaining an understanding of the trends and operating results for our core business. These measures should be viewed in addition to, and not in lieu of, results reported under U.S. GAAP.

Reconciliations of adjusted revenues, adjusted expenses, adjusted pre-tax (loss) income, adjusted income tax expense (benefit) and adjusted net (loss) income to revenues, expenses, (loss) income before income tax expense (benefit), income tax expense (benefit) and net loss and related per share amounts as determined in accordance with U.S.

GAAP for the three and nine months ended September 30, 2017 and September 30, 2016, respectively, are provided below (dollars in thousands except per share amounts).

	Three Months Ended September 30,		Nine Months Ended September 30	
	2017	2016	2017	2016
Total revenues	$ 114,531	$ 104,185	$ 356,947	$ 349,463
Less:				
Other revenues - gains (1)	—	—	—	(2,438)
Adjusted revenues	$ 114,531	$ 104,185	$ 356,947	$ 347,025
Total expenses	$ 116,486	$ 131,983	$ 350,004	$ 390,557
Less:				
Impairment of customer intangible asset (2)	(325)	—	(325)	—
Legal costs related to the planned formation of the derivatives venture (2)	(750)	—	(750)	—
Reserve for settlement related to ADRs and associated costs (3)	—	(23,743)	—	(23,743)
Restructuring (4)	—	—	—	(4,355)
Upfront compensation awards for current CEO (5)	—	(541)	—	(3,857)
Arbitration case with former CEO and associated costs (6)	—	941	—	(6,580)
Gain from currency translation adjustment (7)	—	1,066	—	1,066
Adjusted expenses	$ 115,411	$ 109,706	$ 348,929	$ 353,088
(Loss) income before income tax expense (benefit)	$ (1,955)	$ (27,798)	$ 6,943	$ (41,094)
Effect of adjustments	1,075	22,277	1,075	35,031
Adjusted pre-tax (loss) income	$ (880)	$ (5,521)	$ 8,018	$ (6,063)
Income tax expense (benefit)	$ 45,012	$ (3,887)	$ 43,965	$ (9,460)
Tax effect of adjustments (1) (3) (4) (5) (6)	—	1,125	—	5,101
Valuation allowance for U.S. deferred tax assets arising in periods prior to the third quarter of 2017 (8)	(42,262)	—	(42,262)	—
Adjusted income tax expense (benefit)	$ 2,750	$ (2,762)	$ 1,703	$ (4,359)
Net loss	$ (46,967)	$ (23,911)	$ (37,022)	$ (31,634)
Net effect of adjustments	43,337	21,152	43,337	29,930
Adjusted net (loss) income	$ (3,630)	$ (2,759)	$ 6,315	$ (1,704)
Diluted loss per share	$ (1.42)	$ (0.73)	$ (1.12)	$ (0.96)
Net effect of adjustments	1.31	0.65	1.30	0.91
Adjusted diluted (loss) income per share	$ (0.11)	$ (0.08)	$ 0.18	$ (0.05)

(1) In the second quarter of 2016, we received insurance proceeds of $2.4 million from our corporate insurance carrier to settle a claim for lost profits arising from an August 2015 outage in our outsourced primary data center in the U.S. Additionally, we generated a nominal gain on the completion of the sale of our investment research operations in May 2016.

(2) In the third quarter of 2017, we deemed the remaining value of a customer intangible asset recorded in ITG Derivatives of $0.3 million fully impaired and incurred legal fees related to the planned formation of the Matrix venture of $0.8 million (Note: the venture is expected to launch by the first quarter of 2018 subject to the receipt of required regulatory approvals and satisfaction of other customary closing conditions).

(3) In the third quarter of 2016, we accrued $22.1 million for a settlement with the SEC with respect to an inquiry involving discontinued activity in pre-released ADRs and incurred legal fees related to this matter of $1.6 million.

(4) During the first half of 2016, we incurred restructuring charges of $4.4 million related to (a) the reduction in our high-touch trading and sales organizations and (b) the closing of our U.S. matched-book securities lending operations and our Canadian arbitrage trading desk.

(5) Our current Chief Executive Officer was granted cash and stock awards upon the commencement of his employment in January 2016, a significant portion of which replaced awards he forfeited at his former employer. Due to U.S. tax regulations, only a small portion of the amount expensed for these awards was eligible for a tax deduction.

(6) In the first half of 2016, we incurred a charge of $4.8 million, net of an insurance recovery of $0.5 million, to settle an arbitration case with our former CEO and incurred legal fees of $2.7 million. In the third quarter of 2016, we recorded a reimbursement of $0.9 million of these legal fees from our insurance carrier.

(7) In the third quarter of 2016, we substantially completed the liquidation of our investment in our Israel entity that ceased operations in December 2013. During our period of ownership and through December 2013, we had accumulated foreign exchange translation gains as a component of equity, which have been reclassified as a gain that reduced other general and administrative expenses in the Consolidated Statement of Operations.

(8) In the third quarter of 2017, we determined that it was appropriate to establish a full valuation allowance on our U.S. deferred tax assets, of which $42.3 million related to periods prior to the third quarter of 2017.

Executive Summary for the Quarter Ended September 30, 2017

Consolidated Overview

Our results for the third quarter were mixed. While we continued to achieve strong results in our international operations, including record levels of revenue and profits in Asia Pacific, weak market-wide volumes in the U.S. weighed on our consolidated performance. The challenging quarter in the U.S. resulted in a cumulative pre-tax loss in the U.S. tax jurisdiction over the previous three years, leading to a full valuation allowance on our U.S. deferred tax assets. Prevailing accounting guidance limits our ability to consider other subjective evidence to support deferred tax assets, such as forecasts of future profits, when objective verifiable evidence such as a cumulative loss exists. The establishment of this valuation allowance does not limit our ability to utilize the underlying deferred tax assets against future profits in the U.S. jurisdiction.

Our revenues during the third quarter of 2017 were $114.5 million, 10% higher than the third quarter of 2016 due largely to the growth in global block crossing through POSIT Alert. On a U.S. GAAP basis, we incurred a net loss of $47.0 million, or $1.42 per diluted share in the third quarter of 2017, compared to a net loss of $23.9 million, or $0.73 per diluted share in the third quarter of 2016. Our GAAP loss in the third quarter of 2017 included a non-cash charge of $42.3 million, or $1.28 per diluted share, to establish the full valuation allowance on U.S deferred tax assets that arose in prior periods mentioned above and charges of $1.1 million, or $0.03 per diluted share, related to the planned formation of the Matrix venture. On an adjusted basis excluding those items, we generated a loss of $3.6 million, or $0.11 per diluted share in the third quarter of 2017 compared to an adjusted loss of $2.8 million, or $0.08 per diluted share, in the third quarter of 2016. Unlike the prior-year period, the adjusted loss in the third quarter of 2017 does not include the impact of deferred tax benefits on the adjusted pre-tax loss in the U.S. jurisdiction during the quarter totaling $5.5 million, or $0.16 per diluted share.

During the third quarter, we continued to implement cost efficiencies with staff reductions that are expected to save nearly $3 million in annual costs. This action resulted in a charge for employee termination costs of $1.7 million, or $0.05 per share. The cost reduction measures we have implemented since the third quarter of 2016 are now approaching annual savings of $20 million and are fully funding investments we are making in growth initiatives under the Strategic Operating Plan (“SOP”) and in strategic hires for our U.S. sales and coverage teams. We also expect to take additional steps to further improve our operating efficiency, including the consolidation of office space at our New York headquarters in the fourth quarter, and the streamlining of our derivatives offering upon the closing of the Matrix venture, which is expected to occur by the first quarter of 2018.

We are continuing our focus on growth through the execution of our SOP, which aims to enhance our global capabilities in liquidity, execution, analytics and workflow technology solutions. We have sharpened our focus around these four key service offerings following the divestitures and closings of non-core operations. As part of this plan, we are pursuing significant investments in technology and people to bolster these key service offerings with the expectation that we will meaningfully grow market share, revenues and profitability on a global basis. As of September 30, 2017, we have identified 58 employees that are or will be fully dedicated to executing the plan and our total investment under the plan since its inception in late July 2016 is more than $15 million.

Segment Discussions

In the U.S., we are working to narrow the profitability gap in the face of weaker market volumes where average daily trading in U.S. equities fell to a three-year low of 6.1 billion shares in the third quarter of 2017, down 8% from the

third quarter of 2016. Our U.S. average daily volume ("ADV") was 8% higher than the third quarter of 2016, outperforming market-wide volumes driven in part by increased trading in POSIT Alert, where our ADV was up 30% from the third quarter of 2016.

Trading activity in Canada held up well during the quarter despite lower market-wide volumes. Commissions and fees were 11% higher than the third quarter of 2016 while market-wide volumes were down 14% versus the prior year quarter. This outperformance reflected growth in activity from buy-side clients.

In Europe, our executed daily value was 11% higher in British pound terms than the third quarter of 2016, slightly outperforming the 9% increase in market-wide trading activity. This outperformance reflected increased activity from buy-side clients that was partially offset by reduced activity from sell-side clients. The growth in buy-side activity was largely driven by increased block crossing in POSIT Alert.

In Asia Pacific, we achieved record revenues and profitability. Asia Pacific commissions and fees increased 22% over the prior-year quarter, significantly outpacing the 12% growth in overall market-wide trading activity, driven by another record quarter for value traded in POSIT Alert and increased algorithmic and portfolio trading by clients. Our pre-tax profit in Asia Pacific increased to $2.9 million with a margin of 19%, compared with a pre-tax profit of $0.9 million and a margin of 7% in the prior-year quarter.

Corporate activity in the third quarter of 2017 reduced pre-tax income by $6.2 million compared to a pre-tax reduction of $26.4 million in the third quarter of 2016. The lower pre-tax loss reflects the impact of costs incurred during the prior-year period related to a reserve for a settlement with the SEC related to an inquiry involving discontinued activity in pre-released ADRs and related legal fees, as well as costs for the continued expensing of upfront awards to our current CEO, a significant portion of which replaced awards he forfeited at his former employer.

Capital Resource Allocation

During the third quarter of 2017, we repurchased 119,727 shares under our authorized repurchase program for $2.4 million, or an average cost of $20.22 per share, and we maintained our $0.07 quarterly dividend program, paying out $2.3 million in cash. On a year-to-date basis, we have repurchased 371,704 shares under our authorized repurchase program for $7.4 million, or an average cost of $19.92 per share and we have paid cash dividends of $6.9 million.

Our goal over the long term is to use our share repurchase program to offset dilution from the issuance of stock under employee compensation plans, although the number of shares repurchased may vary from period to period. We may repurchase additional shares opportunistically depending on various factors including, among others, market conditions and competing needs for the use of our capital.

Results of Operations — Three Months Ended September 30, 2017 Compared to Three Months Ended September 30, 2016

U.S. Operations

$ in thousands	Three Months Ended September 30, 2017	Three Months Ended September 30, 2016	Change	% Change
Revenues:				
Commissions and fees	$ 34,618	$ 35,739	$ (1,121)	(3)%
Recurring	11,855	12,430	(575)	(5)%
Other	930	605	325	54 %
Total revenues	47,403	48,774	(1,371)	(3)%
Expenses:				
Compensation and employee benefits	26,423	25,527	896	4 %
Transaction processing	8,711	8,797	(86)	(1)%
Other expenses	21,263	22,978	(1,715)	(7)%
Total expenses	56,397	57,302	(905)	(2)%
Loss before income tax benefit	$ (8,994)	$ (8,528)	$ (466)	(5)%

Commissions and fees declined 3% compared to the prior-year period due primarily to a decline in our overall revenue per share. Our ADV increased 8% over the third quarter of 2016, despite an 8% decrease in total daily U.S. market volumes. This outperformance pushed our market share for the quarter to 2.06%, well above our market share of 1.75% in the third quarter of 2016. Our revenue per share declined from $0.0041 to $0.0036, driven by a lower average revenue per share earned on net executions with sell-side clients and movements within the mix of our volume amongst our buy-side clients. ADV from sell-side clients comprised 52% of our overall ADV, consistent with the prior-year period.

U.S. Operations: Key Indicators*	Three Months Ended September 30, 2017	Three Months Ended September 30, 2016	Change	% Change
Total trading volume (in billions of shares)	7.9	7.4	0.5	7 %
Average trading volume per day (in millions of shares)	125.0	115.5	9.5	8 %
Average revenue per share	$ 0.0036	$ 0.0041	$ (0.0005)	(12)%
U.S. market trading days	63	64	(1)	(2)%

* Excludes activity from ITG Net commission share arrangements.

Recurring revenues were down 5% from the third quarter of 2016 primarily reflecting lower OMS subscriptions and connectivity revenue due to client attrition.

Other revenues increased $0.3 million from the third quarter of 2016 due to higher market data tape rebates and higher commission aggregation revenue, as well as lower client trade accommodations.

Compensation and employee benefits increased 4% from the third quarter of 2016 due to the impact of $1.7 million of employee separation costs, increased headcount dedicated to the SOP and strategic hires for our sales and coverage teams. These increases were partially offset by cost savings measures implemented during the second half of 2016 and throughout 2017.

Transaction processing costs decreased 1% from the prior-year period, despite the 8% increase in our ADV, due in part to the impact of a higher crossing rate in POSIT, lower execution costs from a shifting mix in client business and a reduction in fixed clearing costs. As a percentage of commission and fees, transaction processing costs increased to 25.2% in the third quarter of 2017 from 24.6% in the third quarter of 2016 due primarily to the impact of the reduction in the average revenue per share.

Other expenses decreased 7% from the third quarter of 2016 due to reduced energy research costs from the amendment to terminate the original energy research distribution agreement. We also saw lower travel and entertainment costs and an increase in the amount of global research and development costs charged out to other regions.

Canadian Operations

$ in thousands	Three Months Ended September 30, 2017	2016	Change	% Change
Revenues:				
Commissions and fees	$12,902	$11,607	$ 1,295	11 %
Recurring	1,307	1,255	52	4 %
Other	846	857	(11)	(1)%
Total revenues	15,055	13,719	1,336	10 %
Expenses:				
Compensation and employee benefits	4,674	4,466	208	5 %
Transaction processing	2,916	2,055	861	42 %
Other expenses	6,060	5,702	358	6 %
Total expenses	13,650	12,223	1,427	12 %
Income before income tax expense	$ 1,405	$ 1,496	$ (91)	(6)%

Currency translation from a stronger Canadian Dollar increased total Canadian revenues and expenses by $0.5 million and $0.4 million, respectively, resulting in an increase of $0.1 million to pre-tax income.

Commissions and fees were 11% higher than the third quarter of 2016, despite a 14% decline in market-wide volumes for the same period due to growth in activity from buy-side clients and favorable currency translation.

Recurring revenues and other revenues were comparable to the prior-year period.

Compensation and employee benefits costs increased 5% compared to the third quarter of 2016 due primarily to currency translation.

Transaction processing costs increased 42% over the prior-year period, significantly exceeding the growth in commission and fees, due primarily to an increase in the proportion of our execution activity where we took liquidity, an increase in third-party order routing costs and an increase in the number of settlement tickets processed. As a percentage of commissions and fees, transaction processing increased to 22.6% from 17.7% in the prior-year period.

Other expenses increased 6% from the third quarter of 2016 due to higher charges for global research and development costs and increases in hardware depreciation and consulting costs.

European Operations

$ in thousands	Three Months Ended September 30, 2017	2016	Change	% Change
Revenues				
Commissions and fees	$32,393	$25,062	$ 7,331	29 %
Recurring	3,946	4,013	(67)	(2)%
Other	(83)	(181)	98	54 %
Total revenues	36,256	28,894	7,362	25 %
Expenses:				
Compensation and employee benefits	9,631	8,698	933	11 %
Transaction processing	8,675	7,284	1,391	19 %
Other expenses	9,028	8,203	825	10 %
Total expenses	27,334	24,185	3,149	13 %
Income before income tax expense	$ 8,922	$ 4,709	$ 4,213	89 %

Overall currency rate changes in the European region increased revenues and expenses by $0.9 million and $0.4 million, respectively, resulting in an increase of $0.5 million to pre-tax income.

Commissions and fees were 29% higher than the third quarter of 2016 due primarily to a significant increase in block crossing in POSIT Alert, higher algorithmic trading and single stock sales trading from institutional and hedge

fund clients and favorable currency translation. This growth more than offset the impact of reduced trading from sell-side clients. Sell-side clients made up 42% of our European value traded in the third quarter of 2017 compared to 60% in the prior-year quarter. This favorable change in business mix pushed our overall commission rate 20% higher than the third quarter of 2016.

Recurring revenue declined 2% from the prior-year period due to lower OMS connectivity and RFQ-hub maintenance fees while other revenues were favorable to the prior-year period due to a lower impact from client trade accommodations.

Compensation and employee benefits increased 11% from the third quarter of 2016 due to higher headcount associated with our continued investment in technology and operational staff to invest in our growth initiatives and prepare for MiFID II, along with the impact of currency translation.

Transaction processing costs increased 19% from the prior-year period, reflecting a 9% growth in daily value traded and increases in rebates paid to introducing brokers, third-party order routing costs, and ETF execution costs. We also incurred higher settlement financing costs and had an increase from currency translation. As a percentage of commissions and fees, transaction processing costs fell to 26.8%, compared to 29.1% in the prior-year period due primarily to the impact of the increased overall commission rate.

Other expenses increased 10% from the third quarter of 2016 due to higher charges for global research and development costs, new exchange distribution fees and higher connectivity, as well as higher consulting, software maintenance, licensing and hardware depreciation costs as we continue to invest in our growth initiatives and prepare for MiFID II.

Asia Pacific Operations

	Three Months Ended September 30,			
$ in thousands	**2017**	**2016**	**Change**	**% Change**
Revenues:				
Commissions and fees	$ 13,562	$ 11,075	$ 2,487	22 %
Recurring	1,822	1,516	306	20 %
Other	(57)	(89)	32	36 %
Total revenues	15,327	12,502	2,825	23 %
Expenses:				
Compensation and employee benefits	4,411	4,450	(39)	(1)%
Transaction processing	3,126	2,663	463	17 %
Other expenses	4,852	4,488	364	8 %
Total expenses	12,389	11,601	788	7 %
Income before income tax expense	$ 2,938	$ 901	$ 2,037	226 %

Overall currency rate changes decreased revenues by $0.2 million, due to a weaker Japanese Yen, with virtually no impact on expenses, due to a stronger Australian dollar, resulting in a $0.2 million unfavorable impact on pretax income.

Commissions and fees increased 22% over the prior-year period primarily due to strong order flows into the Hong Kong, Japan and Korea markets and the increased use of our trading algorithms and our POSIT Alert block crossing system where we had another record quarter for value traded. We also had higher commission sharing revenues from trades executed through our Triton EMS and for trading technology outsourced to regional broker-dealers.

Recurring revenues increased 20% from the third quarter of 2016 due to the increase in connectivity revenue, while other revenues increased due to lower client trading accommodations.

Compensation and employee benefits costs decreased 1% from the prior-year period due to the impact of stock award forfeitures and lower cash bonus accruals from the increased use of deferred stock awards in our incentive compensation program to better align employees with the SOP.

Transaction processing costs increased 17% from the third quarter of 2016, higher than the 10% growth in daily value executed, due primarily to the impact of a larger proportion of our trading in markets where costs are higher. As a percentage of commissions and fees, transaction processing costs decreased to 23.0% from 24.0% due to the impact of a higher average commission rate.

Other expenses increased 8% from the prior-year period due to higher depreciation expenses associated with investments we are making to enhance redundancy and business recovery capabilities and higher charges for global research and development costs.

Corporate

Corporate activity includes investment income from treasury activity, certain non-operating revenues and other gains as well as costs not associated with operating the businesses within our regional segments. These costs include, among others, (a) the costs of being a public company, such as certain staff costs, a portion of external audit fees, and reporting, filing and listing costs, (b) intangible asset amortization, (c) interest expense, (d) professional fees associated with our global transfer pricing structure, (e) foreign exchange gains or losses and (f) certain non-operating expenses.

In the third quarter of 2017, we incurred a pre-tax loss from Corporate activities of $6.2 million, reflecting $0.5 million of revenues and $6.7 million of costs, compared to a pre-tax loss of $26.4 million in the prior-year period, reflecting $0.3 million of revenues and $26.7 million of costs. The increase in revenues reflects higher investment income. The decline in costs compared to the third quarter of 2016 reflects costs incurred in the prior-year period for the reserve for a settlement with the SEC related to an inquiry involving discontinued activity in pre-released ADRs and related legal fees, as well as costs for the continued expensing of upfront cash and stock awards granted to our current CEO, a significant portion of which replaced awards he forfeited at his former employer. These costs were reduced by a gain of $1.1 million to recognize into earnings foreign translation gains that were previously recorded directly to equity following the substantial liquidation of our Israel entity and a recovery of $0.9 million from our insurance carrier for legal fees related to the arbitration case with our former CEO. Corporate costs in the third quarter of 2017 included $0.3 million of asset impairment costs and $0.8 million in legal fees associated with the planned formation of the Matrix venture. Corporate costs, including legal expenses, can vary from period to period as we work through litigation, regulatory and other corporate matters.

Consolidated income tax expense

In the third quarter of 2017, we reported a tax expense of $45.0 million on a pre-tax loss of $2.0 million. The significant tax expense in the current quarter reflected the impact of a full valuation allowance on U.S. deferred tax assets, giving rise to an additional non-cash charge of $48.1 million, of which $42.3 million related to assets that arose in prior periods. We made our assessment after applying the appropriate weighting to both positive and negative evidence related to whether it is more-likely than not that some or all of our deferred tax assets will not be realized. In evaluating the need for a valuation allowance, we considered our cumulative pre-tax loss in the U.S. jurisdiction over the previous three years as a significant piece of negative evidence. Prevailing accounting guidance limits our ability to consider other subjective evidence to support deferred tax assets, such as projections of future profits, when objective verifiable evidence such as a cumulative loss exists. In the third quarter of 2016, we reported a tax benefit of $3.9 million, on our pre-tax loss of $27.8 million, resulting in an effective rate of 14.0%. The low effective rate in the prior-year period reflects the impact of the non-deductibility of a substantial portion of the $22.1 million reserve for the ADR matter. This was partially offset by a higher tax benefit recorded on the pre-tax losses in our U.S. Operations and from our other Corporate activities (most of which was incurred in the U.S.), the lower expense rate incurred on our pre-tax earnings in Europe and the benefit of pre-tax income in Asia Pacific, where we do not currently incur tax expense due to cumulative losses.

Our consolidated effective tax rate can vary from period to period depending on, among other factors, the geographic and business mix of our earnings.

Results of Operations — Nine Months Ended September 30, 2017 Compared to Nine Months Ended September 30, 2016

U.S. Operations

$ in thousands	Nine Months Ended September 30, 2017	Nine Months Ended September 30, 2016	Change	% Change
Revenues:				
Commissions and fees	$ 115,268	$ 128,806	$ (13,538)	(11)%
Recurring	35,658	42,728	(7,070)	(17)%
Other	2,633	2,143	490	23 %
Total revenues	153,559	173,677	(20,118)	(12)%
Expenses:				
Compensation and employee benefits	79,264	82,378	(3,114)	(4)%
Transaction processing	29,706	28,918	788	3 %
Other expenses	65,217	71,678	(6,461)	(9)%
Total expenses	174,187	182,974	(8,787)	(5)%
Loss before income tax benefit	$ (20,628)	$ (9,297)	$ (11,331)	nm

nm – not meaningful

Commissions and fees declined 11% compared to the prior-year period due primarily to a decline in our overall revenue per share. Our ADV increased 4% over the prior year period despite a nearly 17% decrease in average daily U.S. market volumes. This outperformance pushed our market share for the first nine months of 2017 to 2.14%, well above our market share of 1.82% in the first nine months of 2016. Our overall revenue per share declined 14% from $0.0042 to $0.0036 driven by significant movements within the mix of our volume amongst our client segments as well as decreased single stock sales trading from headcount reductions to that team following the sale of our remaining investment research operations in May 2016. ADV from our lower priced sell-side accounts increased to 55% of our overall ADV compared with 52% for the prior-year period.

U.S. Operations: Key Indicators*	Nine Months Ended September 30, 2017	Nine Months Ended September 30, 2016	Change	% Change
Total trading volume (in billions of shares)	26.5	25.7	0.8	3 %
Average trading volume per day (in millions of shares)	141.2	135.9	5.3	4 %
Average revenue per share	$ 0.0036	$ 0.0042	$ (0.0006)	(14)%
U.S. market trading days	188	189	(1)	(1)%

* Excludes activity from ITG Net commission share arrangements.

Recurring revenues decreased 17% from the prior-year period following the divestiture of our remaining investment research operations in May 2016 and the amendment to terminate the original energy research distribution agreement at the end of 2016. We also experienced lower OMS subscriptions and connectivity revenue due to client attrition.

Other revenues increased $0.5 million from the first nine months of 2016 due to the impact from lower client trade accommodations, which reduced other revenues by $1.1 million during the prior-year period versus $0.3 million in the current-year period, as well as higher market data tape rebate revenue in the current period. These increases were offset by the loss of revenue from the impact of the closing of our matched-book securities lending operations in the second quarter 2016.

Compensation and employee benefits decreased 4% from the prior-year period due to the impact of divesting our remaining investment research operations in May 2016, cost savings measures implemented during the second half of 2016 and throughout 2017, and the impact of the increased use of deferred stock awards in our incentive compensation program to better align employees with the SOP. These declines were offset in part by an increase in employee separation costs of $5.1 million, headcount dedicated to executing the SOP and strategic hires for our sales and coverage teams.

Transaction processing costs increased 3% from the prior-year period, slightly lower than the growth in our ADV. As a percentage of commissions and fees, transaction processing costs increased to 25.8% from 22.5% during the prior year period due to the impact of the reduction in the average revenue per share.

Other expenses declined 9% from the comparable period in 2016 due to the impact of divesting our remaining investment research operation in May 2016, a reduction in travel and entertainment costs and reduced energy research costs from the amendment to terminate the original energy research distribution agreement.

Canadian Operations

	Nine Months Ended September 30,			
$ in thousands	**2017**	**2016**	**Change**	**% Change**
Revenues:				
Commissions and fees	$ 40,738	$ 37,531	$ 3,207	9 %
Recurring	3,894	3,834	60	2 %
Other	2,889	4,240	(1,351)	(32)%
Total revenues	47,521	45,605	1,916	4 %
Expenses:				
Compensation and employee benefits	13,519	13,881	(362)	(3)%
Transaction processing	8,627	6,837	1,790	26 %
Other expenses	17,341	17,271	70	— %
Total expenses	39,487	37,989	1,498	4 %
Income before income tax expense	$ 8,034	$ 7,616	$ 418	5 %

Currency translation from a stronger Canadian Dollar increased total Canadian revenues and expenses by $0.4 million and $0.3 million, respectively, resulting in an increase of $0.1 million to pre-tax income.

Commissions and fees grew 9% compared to the prior-year period despite a 10% decline in market-wide volumes due to growth in block crossing in POSIT Alert and other buy-side trading activity, as well as higher sell-side trading activity and favorable currency translation.

Recurring revenues were comparable to the prior-year period and other revenues declined 32% largely from the closure of our arbitrage trading desk in April 2016.

Compensation and employee benefits costs decreased 3% from the comparable period in 2016 due to lower headcount and the impact of the increased use of deferred stock awards in our incentive compensation program to better align employees with the SOP.

Transaction processing costs increased 26% over the prior-year period, significantly exceeding the growth in commission and fees, due primarily to an increase in the proportion of our execution activity where we took liquidity, an increase in third-party order routing costs and an increase in the number of settlement tickets processed. As a percentage of commissions and fees, transaction processing costs increased to 21.2% from 18.2% in the prior-year period.

Other expenses were flat with the prior-year period due to reductions in consulting, travel and entertainment, and software amortization costs and the discontinuation of research distribution fees which largely offset higher charges for global research and development costs.

European Operations

$ in thousands	Nine Months Ended September 30, 2017	2016	Change	% Change
Revenues				
Commissions and fees	$ 100,033	$ 80,629	$ 19,404	24 %
Recurring	11,976	12,173	(197)	(2)%
Other	(302)	(566)	264	47 %
Total revenues	111,707	92,236	19,471	21 %
Expenses:				
Compensation and employee benefits	27,832	27,949	(117)	— %
Transaction processing	26,642	22,449	4,193	19 %
Other expenses	26,283	25,166	1,117	4 %
Total expenses	80,757	75,564	5,193	7 %
Income before income tax expense	$ 30,950	$ 16,672	$ 14,278	86 %

Overall currency rate changes in the European region, primarily from the British pound, reduced revenues and expenses by $3.1 million and $2.8 million, respectively, reducing pre-tax income by $0.3 million. This decrease in pre-tax income was comparatively small as revenues and expenses that originate in British pounds largely offset each other.

Commissions and fees were 24% higher than the prior-year period due to strong growth in block crossing in POSIT Alert, as well as growth in, single stock sales trading and algorithmic trading from institutional and hedge fund clients and higher commission sharing revenues from trades executed through our Triton EMS. This growth more than offset the impact of reduced trading from sell-side clients and currency translation. Sell-side clients made up 47% of our European value traded in the current period compared to 63% in the prior-year period. This favorable change in business mix pushed our overall commission rate 21% higher than the first nine months of 2016.

Recurring revenue declined 2% from the comparable period on 2016 due to lower OMS connectivity and RFQ-hub maintenance fees while other revenues were favorable to the prior-year period due to a lower impact from client trade accommodations.

Compensation and employee benefits were flat to the prior-year period as higher headcount was offset by the favorable impact of currency translation, an accelerated charge for deferred stock awards in the prior-year period related to a termination and the increased use of deferred stock awards in our incentive compensation program to better align employees with the SOP.

Transaction processing costs increased 19% from the prior-year period reflecting a 3% growth in daily value traded, increased trading in more costly emerging markets, higher costs to execute ETF trades and higher settlement financing costs. These increases were offset in part by the impact of currency translation. As a percentage of commissions and fees, transaction processing costs declined to 26.6%, compared to 27.8% in the prior-year period reflecting the increase in our average commission rate noted above.

Other expenses increased 4% from the prior-year period due to higher charges for global research and development costs, new exchange distribution fees and higher connectivity, as well as higher consulting, software amortization, software maintenance, licensing and recruiting costs as we continue to invest in our growth initiatives and prepare for MiFID II, partially offset in part by the favorable impact of currency translation.

Asia Pacific Operations

$ in thousands	Nine Months Ended September 30, 2017	2016	Change	% Change
Revenues:				
Commissions and fees	$ 37,880	$ 30,175	$ 7,705	26 %
Recurring	5,285	4,485	800	18 %
Other	(175)	(121)	(54)	(45)%
Total revenues	42,990	34,539	8,451	24 %
Expenses:				
Compensation and employee benefits	13,742	13,466	276	2 %
Transaction processing	8,791	7,527	1,264	17 %
Other expenses	14,139	13,338	801	6 %
Total expenses	36,672	34,331	2,341	7 %
Income before income tax expense	$ 6,318	$ 208	$ 6,110	nm

nm – not meaningful

Currency translation increased total Asia Pacific revenues and expenses by $0.1 million and $0.2 million, respectively, resulting in a decrease of $0.1 million to pre-tax income.

Commissions and fees increased 26% over the prior-year period primarily due to strong order flows into the Australia, Hong Kong and Korea markets and the increased use of our trading algorithms and our POSIT Alert block crossing system. We also had higher commission sharing revenues from trades executed through our Triton EMS and for trading technology outsourced to regional broker-dealers.

Recurring revenues increased 18% from the comparable period in 2016 due to higher billed revenue from analytics products and recurring connectivity, while other revenues decreased due to a higher impact from client trade accommodations.

Compensation and employee benefits increased 2% over the prior-year period due to a slight increase in headcount, partially offset by the increased use of deferred stock awards in our incentive compensation program to better align employees with the SOP and cost savings measures implemented during the second half of 2016.

Transaction processing costs increased 17% from the prior-year period, which was higher than the 10% growth in daily value executed due primarily to the impact of a larger proportion of our trading in markets where costs are higher. As a percentage of commissions and fees, transaction processing costs decreased to 23.2% from 24.9% due to the impact of a higher average commission rate.

Other expenses increased 6% from the comparable period in 2016 due to higher depreciation expenses associated with investments we are making to enhance redundancy and business recovery capabilities, as well as higher charges for global research and development costs, partially offset by lower travel and entertainment expenses.

Corporate

For the first nine months of 2017, we incurred a pre-tax loss from Corporate activities of $17.7 million, reflecting $1.2 million of revenues and $18.9 million of costs, compared to a pre-tax loss of $56.3 million in the prior-year period, reflecting $3.4 million of revenues and $59.7 million of costs. The reduction in revenues reflect the recognition of $2.4 million of insurance proceeds received in the second quarter 2016, net of related expenses, under our business interruption insurance policy for the impact of an outage at our primary outsourced data center incurred in August 2015. The decline in costs reflects costs incurred in the prior-year period for a reserve for a settlement with the SEC related to an inquiry involving discontinued activity in pre-released ADRs and related legal fees, the expensing of upfront cash and stock awards granted to our current CEO, a significant portion of which replaced awards he forfeited at his former employer, the settlement of the arbitration claim by our former CEO, net of insurance recoveries, together with related legal fees, and restructuring costs related to (a) the reduction in high-touch sales trading headcount that was previously focused on our research products and (b) the closing of our U.S. matched-book securities lending operations and our Canadian arbitrage trading desk. Costs during the 2016 period were reduced by the reclassification of an accumulated foreign translation gain after we substantially liquidated our Israel entity. Corporate costs in the current period included $0.3 million of asset impairment costs and $0.8 million in legal fees associated with the planned formation of the Matrix venture, which were more than offset by reductions in legal fees and intangible amortization as compared to the comparable period in 2016. Corporate costs, including legal expenses, can vary from period to period as we work through litigation, regulatory and other corporate matters.

Consolidated income tax expense

In the first nine months of 2017, we reported a tax expense of $44.0 million on pre-tax income of $6.9 million. The significant tax expense in the current period reflected the impact of a full valuation allowance on U.S. deferred tax assets, giving rise to an additional non-cash charge of $48.1 million, of which $42.3 million related to assets that arose in periods prior to the third quarter of 2017. We made our assessment after applying the appropriate weighting to both positive and negative evidence related to whether it is more-likely than not that some or all of our deferred tax assets will not be realized. In evaluating the need for a valuation allowance, we considered our cumulative pre-tax loss in the U.S. jurisdiction over the previous three years as a significant piece of negative evidence. Prevailing accounting guidance limits our ability to consider other subjective evidence, such as projections of future profits, when objective verifiable evidence such as a cumulative loss exists. In the first nine months of 2016, we reported a tax benefit of $9.5 million on a pre-tax loss of $41.1 million, resulting in an effective rate of 23.0%. The low effective rate in the prior-year period reflects the impact of the non-deductibility of a substantial portion of the $22.1 million reserve for the ADR matter, offset in part by a higher tax benefit recorded on the pre-tax losses in our U.S. Operations and from our other Corporate activities (most of which was incurred in the U.S.), and the lower expense rate incurred on our pre-tax earnings in Europe.

Our consolidated effective tax rate can vary from period to period depending on, among other factors, the geographic and business mix of our earnings.

Liquidity and Capital Resources

Liquidity

Our primary source of liquidity is cash provided by operations. Our liquidity requirements result from our working capital needs, which include clearing and settlement activities, as well as our regulatory capital needs. A substantial portion of our assets is liquid, consisting of cash and cash equivalents or assets readily convertible into cash. Cash is principally invested in money market mutual funds. At September 30, 2017, unrestricted cash and cash equivalents totaled $238.8 million. Included in this amount is $123.8 million of cash and cash equivalents held by subsidiaries outside the United States. Due to the December 2015 amendment to the capital structure of our operations outside of North America, which included a deemed dividend on all cumulative undistributed earnings at that time, we currently do not foresee a need to repatriate funds from certain foreign subsidiaries to the U.S. by way of additional dividends. Should we need to do so in the future, our effective tax rate may increase or reduce the amount of any valuation allowance required.

As a self-clearing broker-dealer in the U.S., we are subject to cash deposit requirements with clearing organizations that may be large in relation to total liquid assets and may fluctuate significantly based upon the nature and

size of customers' trading activity and market volatility. At September 30, 2017, we had interest-bearing security deposits totaling $39.5 million with clearing organizations in the U.S. for the settlement of equity trades. In the normal course of our U.S. settlement activities, we may also need to temporarily finance customer securities positions from non-standard settlements or delivery failures. These financings may be funded from existing cash resources, borrowings under stock loan transactions or short-term bank loans under our committed facility. On January 27, 2017, we entered into a new $150 million 364-day revolving credit agreement (the "Credit Agreement") in the U.S. with a syndicate of banks and JPMorgan Chase Bank, N.A., as Administrative Agent (see Note 11, *Borrowings*, to the condensed consolidated financial statements).

We also self-clear equity trades in Australia, maintaining a deposit with clearing organizations of $3.3 million at September 30, 2017. We no longer maintain a clearing deposit in Hong Kong since migrating to a third-party clearing provider (see discussion in *Regulatory Capital* below). In Europe, we maintained $1.5 million in restricted cash related to protected client funds and we had deposits with our clearing and settlement agents of $38.3 million at September 30, 2017. As part of our European settlement activities, we may need to temporarily finance customer securities positions from non-standard settlements or delivery failures. These financings may be funded from existing cash resources, borrowings under stock loan transactions or short-term bank loans under uncommitted overdraft facilities with our clearing agent and a commercial bank.

Capital Resources

Capital resource requirements relate to capital purchases, as well as business investments, and are generally funded from operations. When required, as in the case of a major acquisition, our strong cash generating ability has historically allowed us to obtain debt financing.

Operating Activities

The table below summarizes the effect of the major components of operating cash flow.

	Nine Months Ended September 30,	
(in thousands)	**2017**	**2016**
Net loss	$ (37,022)	$ (31,634)
Gain on sale of investment research operations	—	(21)
Non-cash items included in net loss (1)	85,375	39,541
Effect of changes in receivables/payables from/to customers and brokers	(46,594)	(63,890)
Effect of changes in other working capital and operating assets and liabilities	(9,726)	(18,682)
Net cash used in operating activities	$ (7,967)	$ (74,686)

(1) Includes the impact of establishing a full valuation allowance for U.S. deferred tax assets of $48.3 million.

Our operating activities resulted in net cash being used during the nine months ended September 30, 2017. However, the use of cash was less than the prior-year period largely due to higher cash earnings, as the net loss for the nine months ended September 30, 2017 included the large non-cash charge to establish the valuation allowance for U.S. deferred tax assets, while the net loss for the nine months ended September 30, 2016 included significant cash charges. While we also saw a significant reduction in operating activities from settlement receivables, that impact was more than offset by a decrease in the amount of short-term debt financing from our European settlement agent reflected in financing activities. Other working capital changes had less of a negative impact to cash used in operating activities due to the positive effects of liquidating our restricted cash and clearing deposits in Hong Kong and an increase to accrued research payments under client commission arrangements. These positive impacts were offset during the current period by the payment to the SEC in January 2017 for the settlement of the inquiry into ITG Inc.'s discontinued activity with respect to pre-released ADRs and the payment of 2016 incentive compensation in the first quarter of 2017.

In the normal course of our clearing and settlement activities worldwide, cash is typically used to fund restricted or segregated cash accounts (under regulations and otherwise), broker and customer fails to deliver/receive, securities borrowed, deposits with clearing organizations and net activity related to receivables/payables from/to customers and brokers. The cash requirements vary from day to day depending on value transacted and customer trading patterns.

Investing Activities

Net cash used in investing activities of $31.2 million during the nine months ended September 30, 2017 includes investments in software development projects, computer hardware and office space.

Financing Activities

Net cash provided by financing activities of $1.1 million primarily reflects proceeds from short-term bank borrowings that are used to support our settlement activities, partially offset by repurchases of ITG common stock, our dividend program, shares withheld for net settlements of share-based awards and repayments of long-term debt.

During the first nine months of 2017, we repurchased approximately 0.9 million shares of our common stock at a cost of $17.9 million, which was funded from our available cash resources. Of these shares, nearly 0.4 million were purchased under our Board of Directors' authorization for a total cost of $7.4 million (average cost of $19.92 per share). In addition, nearly 0.5 million shares were repurchased for $10.5 million pertaining solely to the satisfaction of minimum statutory withholding tax upon the net settlement of equity awards. As of September 30, 2017, the total remaining number of shares currently available for repurchase under ITG's stock repurchase program was 1.1 million. The specific timing and amount of repurchases will vary depending on various factors, including, among others, market conditions and competing needs for the use of our capital. We may elect to conduct future share repurchases through open market purchases, private transactions or automatic share repurchase programs under SEC Rule 10b5-1.

Regulatory Capital

ITG Inc., AlterNet and ITG Derivatives are subject to the SEC's Uniform Net Capital Rule (Rule 15c3-1), which requires the maintenance of minimum net capital. ITG Inc. has elected to use the alternative method permitted by Rule 15c3-1, which requires that ITG Inc. maintain minimum net capital equal to the greater of $1.0 million or 2% of aggregate debit balances arising from customer transactions, as defined. AlterNet and ITG Derivatives have elected to use the basic method permitted by Rule 15c3-1, which requires that they each maintain minimum net capital equal to the greater of $6^2/_3$% of aggregate indebtedness or $100,000. Dividends or withdrawals of capital cannot be made if capital is needed to comply with regulatory requirements.

Net capital balances and the amounts in excess of required net capital at September 30, 2017 for the U.S. Operations are as follows (dollars in thousands):

U.S. Operations	**Net Capital**	**Excess**
ITG Inc.	$ 84,131	$ 83,131
AlterNet	4,550	4,450
ITG Derivatives	723	623

As of September 30, 2017, ITG Inc. had $8.9 million of cash in a special reserve bank account for the benefit of customers under the Customer Protection Rule pursuant to SEC Rule 15c3-3 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and $2.5 million under proprietary accounts of broker dealers.

In addition, our Canadian, European and Asia Pacific Operations have subsidiaries with regulatory capital requirements. The regulatory net capital balances and amount of regulatory capital in excess of the minimum

requirements applicable to each business at September 30, 2017, is summarized in the following table (dollars in thousands):

	Net Capital	Excess
Canadian Operations		
Canada	$ 25,878	$ 25,478
European Operations		
Ireland	75,352	41,882
U.K.	2,019	1,156
Asia Pacific Operations		
Australia	25,082	8,560
Hong Kong	6,212	5,723
Singapore	1,075	1,001

In 2017, we migrated from self-clearing in Hong Kong to the use of a third-party clearer that settles trades executed in Hong Kong on behalf of ITG Australia Limited. Since capital requirements with respect to unsettled trades are generally lower in Australia than Hong Kong, this migration has reduced our overall peak capital requirements in the Asia Pacific region by more than $10 million.

During the second quarter of 2017, we received regulatory approval for a change in the method used to determine our capital requirements in Europe following an extensive review we initiated with our local regulator. This change has lowered peak capital requirements in the region by nearly $20 million.

Liquidity and Capital Resource Outlook

Historically, our working capital, stock repurchase, dividend program and investment activity requirements have been funded from cash from operations and short-term loans, with the exception of strategic acquisitions, which at times have required long-term financing. We believe that our cash flow from operations, existing cash balances and our available credit facilities will be sufficient to meet our ongoing operating cash and regulatory capital needs, while also complying with the terms of the Credit Agreement. However, our ability to borrow additional funds may be impacted by financial lending institutions' ability or willingness to lend to us on commercially acceptable terms.

Off-Balance Sheet Arrangements and Aggregate Contractual Obligations

We are a member of various U.S. and non-U.S. exchanges and clearing houses that trade and clear, respectively, equities and/or derivative contracts. Associated with our membership, we may be required to pay a proportionate share of financial obligations of another member who may default on its obligations to the exchanges or the clearing house. While the rules governing different exchange or clearinghouse memberships vary, in general, our guarantee obligations would arise only if the exchange had previously exhausted its resources. The maximum potential payout under these memberships cannot be estimated. We have not recorded any contingent liability in the condensed consolidated financial statements for these agreements and believe that any potential requirement to make payments under these agreements is remote.

As of September 30, 2017, our other contractual obligations and commercial commitments consisted principally of fixed charges, including minimum future rentals under non-cancelable operating leases, minimum future purchases under non-cancelable purchase agreements and compensation under employment agreements.

There has been no significant change to such arrangements and obligations since December 31, 2016.

New Accounting Pronouncements

In January 2017, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2017-04, *Intangibles – Goodwill and other (Topic 350): Simplifying the test for goodwill impairment.* The amendments in this ASU address concerns over the cost and complexity of the two-step goodwill impairment test and removes the second step of the test. An entity will apply a one-step quantitative test and record the amount of goodwill impairment as the excess of a reporting unit's carrying amount over its fair value, not to exceed the total amount of goodwill allocated to the reporting unit. The new guidance does not amend the optional qualitative assessment of

goodwill impairment. ASU 2017-04 is effective for annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. We are currently evaluating the new guidance and have not yet determined the impact of adoption on our financial statements.

In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash*. The amendments in this ASU require that the statement of cash flows explain the change during the period in the total of cash, cash equivalents and restricted cash. Amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. ASU 2016-18 is effective for annual reporting periods beginning after December 15, 2017, including interim periods within those fiscal years, with early adoption permitted. We are currently evaluating the new guidance and have not yet determined the impact of adoption on our financial statements.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230): Classification of certain cash receipts and cash payments*. The amendments in this ASU provide specific guidance for eight specific cash flow classification issues, with the objective of reducing the existing diversity in practice in how certain cash receipts and cash payments are presented and classified in the statement of cash flows under Topic 230, *Statement of Cash Flows*. These amendments are effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years, with early adoption permitted. We are currently evaluating the new guidance and have not yet determined the impact of adoption on our financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*, which requires lessees to recognize leases on the balance sheet and disclose key information about leasing arrangements. The new standard requires a lessee to recognize an asset and lease liability on the balance sheet for all leases with a term longer than 12 months. Leases will be classified as finance or operating, with classification affecting the pattern of expense recognition in the income statement. Classification will be based on criteria that are largely similar to those applied in current lease accounting, but more significant management judgment will be required. The new standard is effective for us on January 1, 2019, with early adoption permitted. A modified retrospective transition approach is required for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements, with certain practical expedients available. We are currently evaluating the effect of adoption of the new standard and expect that it will have a material effect on our financial statements. We currently believe the most significant changes relate to real estate and office and equipment operating leases. We do not expect a significant change in our leasing activity between now and adoption.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers*. The standard provides companies with a single five step revenue recognition model for use in accounting for revenue arising from contracts with customers and supersedes current revenue recognition guidance, including industry-specific revenue guidance. The core principle of the model is to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASU 2014-09 applies to all contracts with customers except those that are within the scope of other topics in the FASB Accounting Standards Codification. The standard will also require significant additional qualitative and quantitative disclosures describing the nature, amount, timing, and uncertainty of revenues. Entities have the option of using either a full retrospective or modified approach to adopt ASU 2014-09. The original standard was effective for fiscal years beginning after December 15, 2016, however, in April 2015, the FASB proposed a one-year deferral of this standard, with a new effective date for fiscal years beginning after December 15, 2017. We have completed a detailed review of a representative sample of customer contracts from each in-scope revenue stream and have identified two key accounting changes related to bundled commission arrangements and fees for licenses of functional intellectual property, that will impact the financial statements. We are currently assessing the financial impact of these accounting changes but expect (1) a deferral of revenues generated in the first half of the year for commissions attributable to analytics products under bundled arrangements that will be recognized over the course of the year as the performance obligations for those analytics products are satisfied, and (2) an acceleration of license fee revenues to the delivery date for software provided for a specified period. These changes only relate to the timing of when revenue is recognized and have no effect on the underlying transaction price of the products and services we perform. We are currently in the design and implementation phase of this project which, in addition to quantifying the financial impact of the accounting changes identified, also involves: finalizing accounting policies in accordance with the new revenue standard; designing process changes and internal controls; finalizing the selection of a transition method of adoption; and drafting the required disclosures under the new standard.

Critical Accounting Estimates

There has been no significant change to our critical accounting estimates, which are more fully described in Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations*, in our Annual Report on Form 10-K for the year ended December 31, 2016.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Please see our Annual Report on Form 10-K (Item 7A) for the year ended December 31, 2016. There has been no material change in this information.

Item 4. Controls and Procedures

a) *Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures.* Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Exchange Act. Based on this evaluation, our principal executive officer and our principal financial officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this quarterly report.

b) *Changes in Internal Control over Financial Reporting.* There were no changes in our internal control over financial reporting during the quarter ended September 30, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. — OTHER INFORMATION

Item 1. Legal Proceedings

Information pertaining to legal proceedings can be found in “Item 1. Financial Statements—Note 18. *Contingencies —Legal Matters*” and is incorporated herein by reference.

Item 1A. Risk Factors

There has been no significant change to the risks or uncertainties that may affect our results of operations since December 31, 2016. Please see Item 1A in our Annual Report on Form 10-K for the year ended December 31, 2016.

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

The following table sets forth our stock repurchase activity during the first nine months of 2017, including the total number of shares purchased, the average price paid per share, the number of shares repurchased as part of a publicly-announced plan or program, and the number of shares yet to be purchased under the plan or program.

ISSUER PURCHASES OF EQUITY SECURITIES

Period	Total Number of Shares (or Units) Purchased (a)	Average Price Paid per Share (or Unit) (a)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs (b)	Maximum Number of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs (b)
From: January 1, 2017				
To: January 31, 2017	86,948	$ 20.27	—	1,446,840
From: February 1, 2017				
To: February 28, 2017	486,750	20.11	87,035	1,359,805
From: March 1, 2017				
To: March 31, 2017	75,799	19.93	74,673	1,285,132
From: April 1, 2017				
To: April 30, 2017	38,844	19.27	38,844	1,246,288
From: May 1, 2017				
To: May 31, 2017	8,481	20.03	8,321	1,237,967
From: June 1, 2017				
To: June 30, 2017	44,348	19.96	43,104	1,194,863
From: July 1, 2017				
To: July 31, 2017	4,085	21.46	—	1,194,863
From: August 1, 2017				
To: August 31, 2017	69,866	20.37	59,761	1,135,102
From: September 1, 2017				
To: September 30, 2017	75,360	20.06	59,966	1,075,136
Total	890,481	$ 20.09	371,704	

(a) This column includes the acquisition of 518,777 common shares from employees in order to satisfy minimum statutory withholding tax requirements upon net settlement of equity awards.

(b) In October 2014, our Board of Directors authorized the repurchase of 4.0 million shares. This authorization has no expiration date. As of December 31, 2016, there were 1.5 million shares remaining available for repurchase under ITG’s stock repurchase program. The specific timing and amount of repurchases will vary depending on various factors including, among others, market conditions and competing needs for the use of our capital.

During the first nine months of 2017, we repurchased approximately 0.9 million shares of our common stock at a cost of $17.9 million, which was funded from our available cash. Of these shares, nearly 0.4 million were purchased under our Board of Directors’ authorization for a total cost of $7.4 million (average cost of $19.92 per share). In addition, nearly 0.5 million shares repurchased for $10.5 million pertained solely to the satisfaction of minimum

statutory withholding tax upon the net settlement of equity awards. As of September 30, 2017, the total remaining number of shares currently available for repurchase under ITG's stock repurchase program was 1.1 million.

During the third quarter of 2017, the Board of Directors declared, and we paid, a quarterly dividend of $0.07 per share, totaling $2.3 million, including less than $0.1 million in stock under the Company's equity award plans.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Not applicable.

Item 6. Exhibits

31.1* Rule 13a-14(a) Certification

31.2* Rule 13a-14(a) Certification

32.1** Section 1350 Certification

101* Interactive Data File

The following furnished materials from Investment Technology Group, Inc.'s Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, formatted in XBRL (Extensible Business Reporting Language), are collectively included herewith as Exhibit 101:

101. INS XBRL Instance Document.
101. SCH XBRL Taxonomy Extension Schema.
101. CAL XBRL Taxonomy Extension Calculation Linkbase.
101. DEF XBRL Taxonomy Extension Definition Linkbase.
101. LAB XBRL Taxonomy Extension Label Linkbase.
101. PRE XBRL Taxonomy Extension Presentation Linkbase.

---

* Filed herewith.
** Furnished herewith.

SIGNATURE

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.

INVESTMENT TECHNOLOGY GROUP, INC.
(Registrant)

Date: November 7, 2017

By: /s/ STEVEN R. VIGLIOTTI
Steven R. Vigliotti
Chief Financial Officer and Chief Administrative Officer and Duly Authorized Signatory of Registrant

Exhibit 31.1

CERTIFICATION

I, Francis J. Troise, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Investment Technology Group, 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.

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.

Date: November 7, 2017

/s/ FRANCIS J. TROISE
Francis J. Troise
Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Steven R. Vigliotti, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Investment Technology Group, 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.

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.

Date: November 7, 2017

/s/ STEVEN R. VIGLIOTTI
Steven R. Vigliotti
Chief Financial Officer and Chief Administrative Officer

Exhibit 32.1

Certification Under Section 906 of the Sarbanes-Oxley Act of 2002
(18 U.S.C., Section 1350)

In connection with the Quarterly Report on Form 10-Q of Investment Technology Group, Inc. (the "Company") for the quarter ended September 30, 2017, as filed with the SEC on the date hereof (the "Report"), Francis J. Troise, as Chief Executive Officer of the Company, and Steven R. Vigliotti, as Chief Financial Officer and Chief Administrative Officer of the Company, each hereby certifies, pursuant to 18 U.S.C. §1350, that to his knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended (the "Exchange Act"); 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/ FRANCIS J. TROISE	/s/ STEVEN R. VIGLIOTTI
Francis J. Troise	Steven R. Vigliotti
Chief Executive Officer	Chief Financial Officer and Chief Administrative Officer
November 7, 2017	November 7, 2017

The foregoing certification is being furnished solely pursuant to 18 U.S.C. § 1350 and shall not be deemed filed by the Company for purposes of Section 18 of the Exchange Act. Such certification will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.