



4Q18 Earnings Presentation

January 30, 2019

NASDAQ 4Q18 AND 2018 HIGHLIGHTS

Driving Accelerating Growth, Creating Sustainable Value

Nasdaq Organic Net Revenue Growth¹

4Q18: +11% Y-o-Y

2018: +8% Y-o-Y

Non-Trading Segments Organic Revenue Growth¹

4Q18: +10% Y-o-Y

2018: +8% Y-o-Y

Market Services Organic Revenue Growth¹

4Q18: +14% Y-o-Y

2018: +9% Y-o-Y

Non-GAAP Operating Margin²

48% in 2018

versus

47% in 2017

Free Cash Flow ex Section 31 Fees

\$926 Million
in 2018

+22% Y-o-Y

Capital Returns to Shareholders³

\$674 Million in 2018,
including \$394 Million
in share repurchases

¹Please refer to pages 14, 25 and 26 for a reconciliation of organic revenue growth.

²Please refer to the appendix for a reconciliation of U.S. GAAP to non-GAAP measures.

³Refers to share repurchases plus dividends.

4Q18 NON-GAAP SUMMARY⁽¹⁾

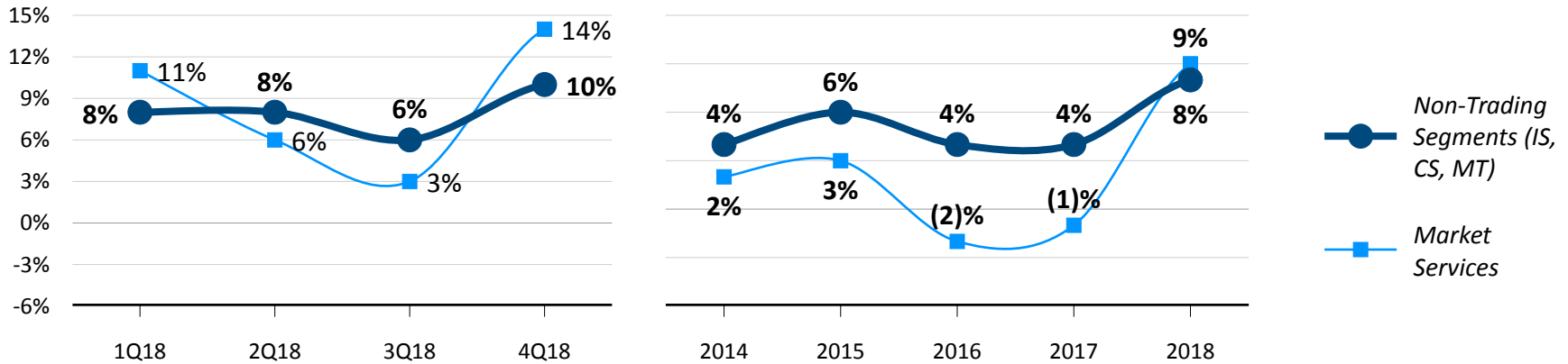
<i>(US\$ millions, except per share)</i>	4Q18	4Q17	% Δ
Revenue from non-trading segments ⁽²⁾	\$396	\$358	11%
Market Services Net Revenue ⁽³⁾	\$249	\$222	12%
Other Revenue	\$—	\$50	(100)%
Net Revenues⁽³⁾	\$645	\$630	2%
Operating Expenses	\$330	\$339	(3)%
Operating Income	\$315	\$291	8%
Operating Margin	49%	46%	—
Net Income	\$211	\$177	19%
Diluted EPS	\$1.26	\$1.04	21%
Diluted Shares Outstanding	167.1	169.7	(2)%

- 4Q18 net revenues⁽³⁾ totaled \$645 million
 - Revenues from non-trading segments⁽²⁾ increased 11%, or \$38 million y-o-y, with increases in Information Services, Corporate Services and Market Technology.
 - Net revenues⁽³⁾ from Market Services increased 12%, or \$27 million y-o-y.
 - Other revenues declined \$50 million y-o-y, due to the divestiture of the Public Relations Solutions and Digital Media Services businesses in mid-April 2018.

1. Please refer to the appendix for a reconciliation of U.S. GAAP to non-GAAP measures.
2. Represents revenues from our Corporate Services, Information Services and Market Technology segments.
3. Represents revenues less transaction-based expenses.

ORGANIC REVENUE AND OUTLOOK

NASDAQ YEAR-OVER-YEAR REVENUE GROWTH EXCLUDING ACQUISITIONS AND DIVESTITURES, CONSTANT CURRENCY⁽¹⁾



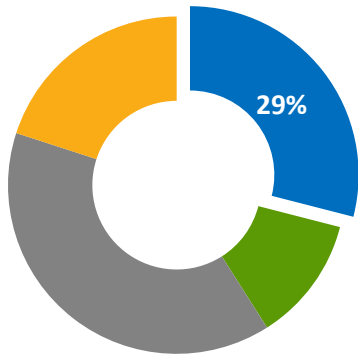
NASDAQ MEDIUM-TERM (3-5 YR) ORGANIC REVENUE GROWTH OUTLOOK

U.S. GDP ⁽²⁾	Information Services	Market Technology	Corporate Services	Non-Trading Segments (IS, CS, MT)
1.8% - 2.6%	5% - 7%	8% - 11%	3% - 5%	5% - 7%

1. Please refer to pages 14, 25 and 26 for a reconciliation of organic revenue growth.
2. GDP forecasts for 2019 and 2020 according to Consensus Economics Inc.

INFORMATION SERVICES

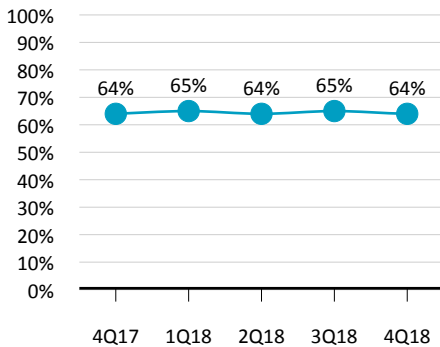
IS 4Q18
Net Revenue
Contribution



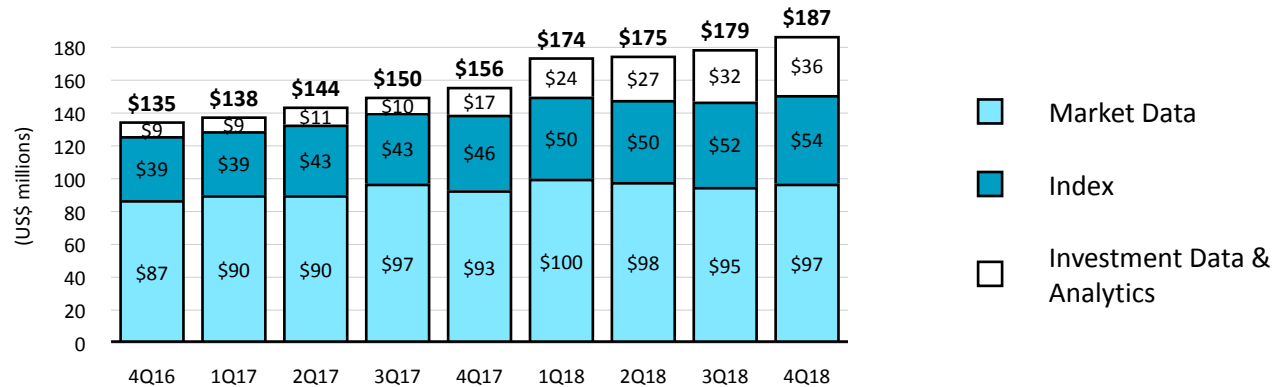
Information Services Performance Summary			
	4Q18	4Q17	% Δ
Net Revenue	\$187M	\$156M	20%
Operating Income	\$120M	\$100M	20%
Operating Income Margin	64%	64%	

- **4% increase in Market Data revenues:** Primarily due to growth in our share of U.S. tape plans, sales of data subscriptions in Asia and European data products.
- **17% increase in Index revenues:** Primarily driven by higher average assets under management in exchange traded products linked to Nasdaq indexes and higher licensing revenue from futures trading related to the Nasdaq 100 Index.
- **\$19 million increase in Investment Data & Analytics revenues:** Due to a positive \$10 million impact from a lower purchase price adjustment on eVestment deferred revenue, a \$6 million impact from the acquisition of eVestment completed in October 2017 and organic growth in eVestment.
- The operating margin totaled 64%, unchanged year over year.

Operating Income Margin ⁽¹⁾



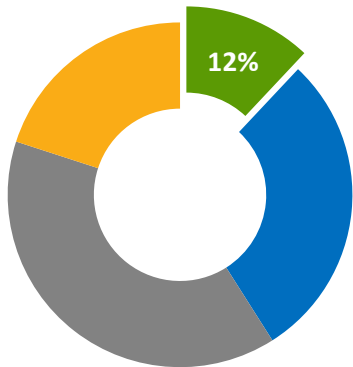
INFORMATION SERVICES NET REVENUES



1. Information Services' margins reflect the allocation of certain costs that support the operation of various aspects of Nasdaq's business, including Market Services, to units other than Information Services.

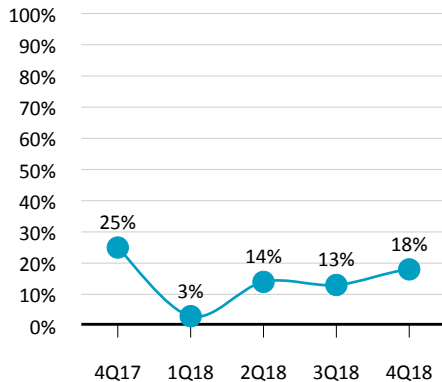
MARKET TECHNOLOGY

MT 4Q18
Net Revenue
Contribution

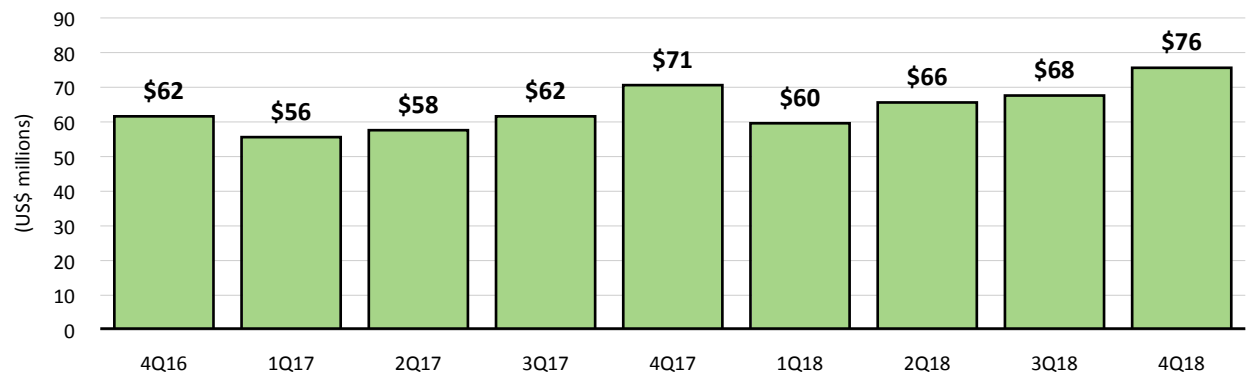


Market Technology Performance Summary				
	4Q18	4Q17	% Δ	
Net Revenue	\$76M	\$71M	7%	<ul style="list-style-type: none"> • 7% growth in Market Technology revenues: Reflecting organic growth in software delivery and support revenues and higher software as a service revenues, partially offset by lower change requests and advisory revenues. • \$74 million new order intake in 4Q18 and 3% y-o-y decrease in total order value to \$695 million at 4Q18. • The operating margin totaled 18%, down 7 percentage points y-o-y reflecting increased investment to implement our next-generation Nasdaq Financial Framework market technology platform and increased customer deliveries.
Operating Income	\$14M	\$18M	(22)%	
Operating Income Margin	18%	25%		

Operating Income Margin

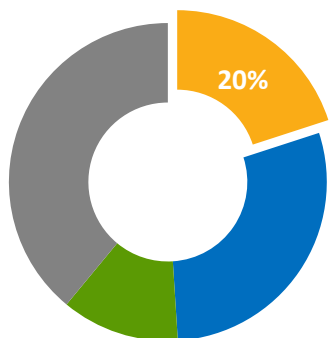


MARKET TECHNOLOGY NET REVENUES



CORPORATE SERVICES

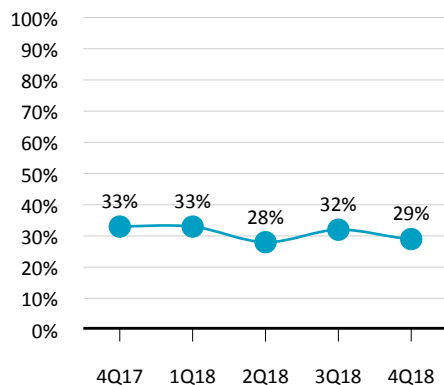
CS 4Q18
Net Revenue
Contribution



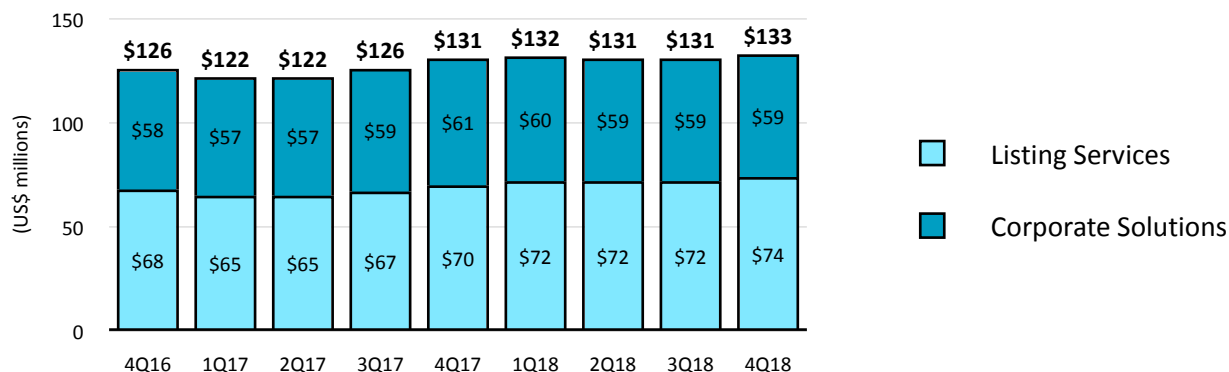
Corporate Services Performance Summary			
	4Q18	4Q17	% Δ
Net Revenue	\$133M	\$131M	2%
Operating Income	\$39M	\$43M	(9)%
Operating Income Margin	29%	33%	

- **3% decrease in Corporate Solutions revenues:** Reflecting organic growth in board and leadership revenues more than offset by a decrease in governance, risk and compliance revenues.
- **6% increase in Listing Services revenues:** Reflects growth from client adoption of our all-inclusive annual listing fee program and an increase in the number and size of IPOs, partially offset by the run-off of fees earned from listing of additional shares.
- 67 new U.S. listings including 41 IPOs in 4Q18, and a 73% U.S. IPO win rate. European new listings totaled 23 in 4Q18.

Operating Income Margin

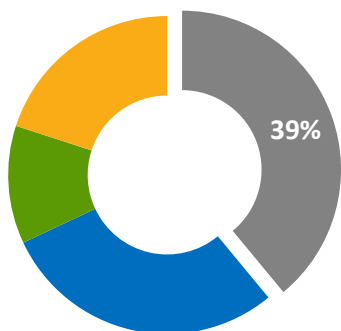


CORPORATE SERVICES NET REVENUES

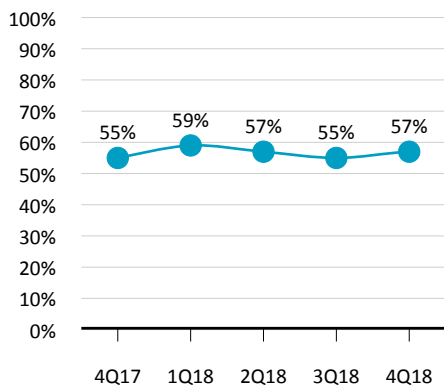


MARKET SERVICES

MS 4Q18
Net Revenue
Contribution



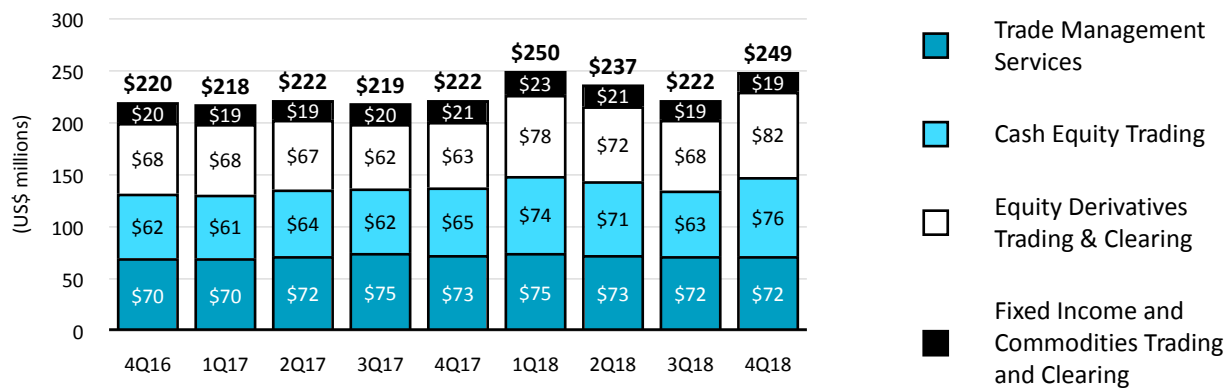
Operating Income Margin



Market Services Performance Summary

	4Q18	4Q17	% Δ	
Net Revenue	\$249M	\$222M	12%	<ul style="list-style-type: none"> ● 30% increase in Equity Derivative Trading and Clearing revenues: Due primarily to higher U.S. options industry trading volumes and net capture rate, partially offset by lower U.S. market share.
Operating Income	\$142M	\$122M	16%	<ul style="list-style-type: none"> ● 17% increase in Cash Equity Trading revenues: Due primarily to higher U.S. and European equity industry trading volumes, higher U.S. equity market share, partially offset by a lower net U.S. capture rate and an unfavorable impact from changes in foreign exchange rates of \$2 million.
Operating Income Margin	57%	55%		<ul style="list-style-type: none"> ● 10% decrease in Fixed Income and Commodities Trading and Clearing revenues: Due to declines in U.S. fixed income and Nordic commodities revenues, partially offset by higher net revenues at NFX. ● 1% decrease in Trade Management Services revenues: Primarily due to a \$1 million unfavorable impact from changes in foreign exchange rates.

MARKET SERVICES NET REVENUES

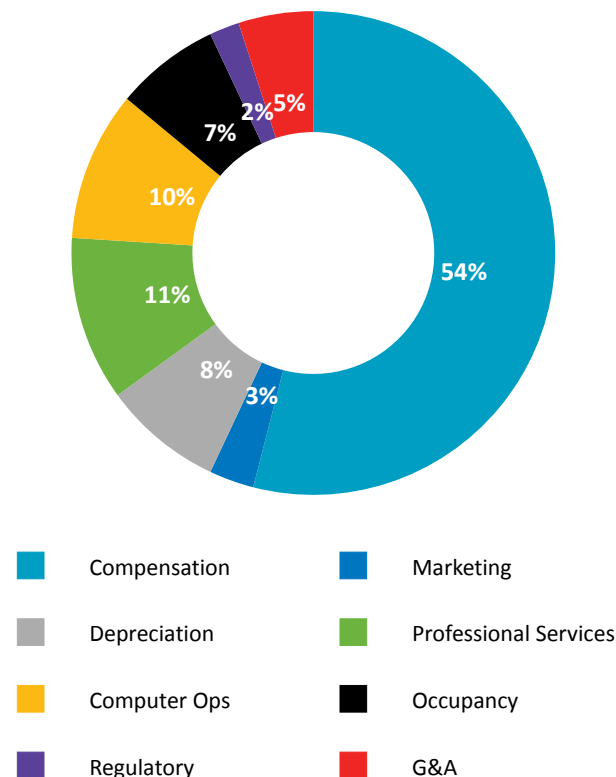


NON-GAAP OPERATING EXPENSES¹

(US\$ millions)

Total Non-GAAP operating expenses	4Q18	3Q18	4Q17
Compensation and benefits	179	164	181
Professional and contract services ⁽²⁾	35	31	43
Computer operations and data communications	33	32	34
Occupancy ⁽²⁾	23	23	23
General, admin. & other ⁽²⁾	16	20	17
Marketing and advertising	11	7	9
Depreciation and amortization ⁽²⁾	25	26	24
Regulatory	8	8	8
Total non-GAAP operating expenses	330	311	339

4Q18 EXPENSE CATEGORIES



1. Please refer to the appendix for reconciliation of U.S. GAAP to non-GAAP measures.

2. Depreciation and amortization expense in all periods has been adjusted from GAAP expense. For 4Q18 and 3Q18, professional and contract services, and general, administrative and other expense is adjusted. For 4Q17, occupancy expense is adjusted. Refer to slides 21-23 for the amounts and details of the adjustments for all periods presented.

2019 NON-GAAP EXPENSE AND TAX GUIDANCE¹

Nasdaq Non-GAAP Operating Expense Guidance Includes impact of Cinnober acquisition

Core Non-GAAP
Operating Expenses

\$1,240-\$1,280 Million

R&D Expenses

\$85-\$95 Million

**Total Non-GAAP
Operating Expenses**

\$1,325-\$1,375 Million

Non-GAAP Tax Rate Guidance: 25% - 27%

¹U.S. GAAP operating expense and tax guidance is not provided due to the inherent difficulty in quantifying certain amounts due to a variety of factors including the unpredictability in the movement in foreign currency rates, as well as future charges or reversals outside of the normal course of business.

DEBT OVERVIEW

Plan to De-Lever to Mid-2X

- 4Q18 debt decreased by \$49M vs. 3Q18 primarily due to a \$34M decrease in outstanding commercial paper and a \$16M decrease in Euro bonds book values caused by a weaker Euro
- 4Q18 Total debt to EBITDA declined to 3.0x compared to 3.1x in 3Q18. Plan to de-lever to mid-2x leverage ratio by mid-2019
- 4Q18 net interest expense was \$35M, \$1M higher than in 4Q17, primarily due to higher interest rates on floating rate debt

Leverage Ratios

Net Debt to EBITDA ⁽¹⁾ = 2.6x

Total Debt to EBITDA ⁽¹⁾ = 3.0x

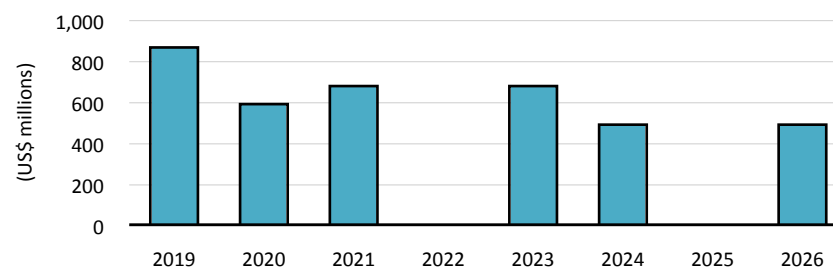
LTM EBITDA ⁽¹⁾ = \$1,288M

1. See Appendix for EBITDA reconciliation.
2. Includes debt issuance costs of \$4M at December 31, 2018 and \$4M at September 30, 2018.
3. Excludes \$41M of restricted cash as of December 31, 2018 and \$52M as of September 30, 2018.

\$3.3B Net Debt

(US\$ millions)	12/31/2018	9/30/2018	Maturity Date
Commercial Paper	275	309	Various
Revolver (Libor + 117.5 bps) ⁽²⁾	(4)	(4)	Apr 2022
Term Loan (Libor + 150 bps)	100	100	Nov 2019
Floating rate note (Libor + 39 bps)	500	499	Mar 2019
5.55% Bond	599	599	Jan 2020
3.88% Euro Bond	686	694	Jun 2021
1.75% Euro Bond	682	690	May 2023
4.25% Bond	497	497	Jun 2024
3.85% Bond	496	496	Jun 2026
Total Debt Obligations	\$3,831	\$3,880	
Less Cash and Cash Equivalents ⁽³⁾	(545)	(324)	
Net Debt	\$3,286	\$3,556	

Well Laddered Debt Maturities



APPENDIX

HISTORICAL CASH FLOW/ USES OF CASH FLOW

Free Cash Flow Calculation (US\$ millions)	2015	2016	2017	2018	2015-2018
Cash flow from operations ⁽¹⁾	\$727	\$776	\$909	\$1,028	\$3,440
Capital expenditure	(133)	(134)	(144)	(111)	(522)
Free cash flow	594	642	765	917	2,918
Section 31 fees, net ⁽²⁾	16	(4)	(9)	9	12
Free cash flow ex. Section 31 fees	\$610	\$638	\$756	\$926	\$2,930
Uses of cash flow					
Share repurchases	\$377	\$100	\$203	\$394	\$1,074
Net repayment/(borrowing) of debt	(137)	(1,300)	(411)	320	(1,528)
Acquisitions, net of dispositions and other	256	1,460	776	(380)	2,112
Dividends paid	149	200	243	280	872
Total uses of cash flow	\$645	\$460	\$811	\$614	\$2,530

1. Cash flow from operations has been restated for adoption of ASU 2016-15, ASU 2016-18, and ASU 2016-09.

2. Net of change in Section 31 fees receivables of (\$11) million in 2015; \$1 million in 2016; \$11 million in 2017; (\$10) million in 2018 and (\$9) million in 2015 - 2018.

TOTAL VARIANCE NET IMPACTS: 4Q18 AND 2018

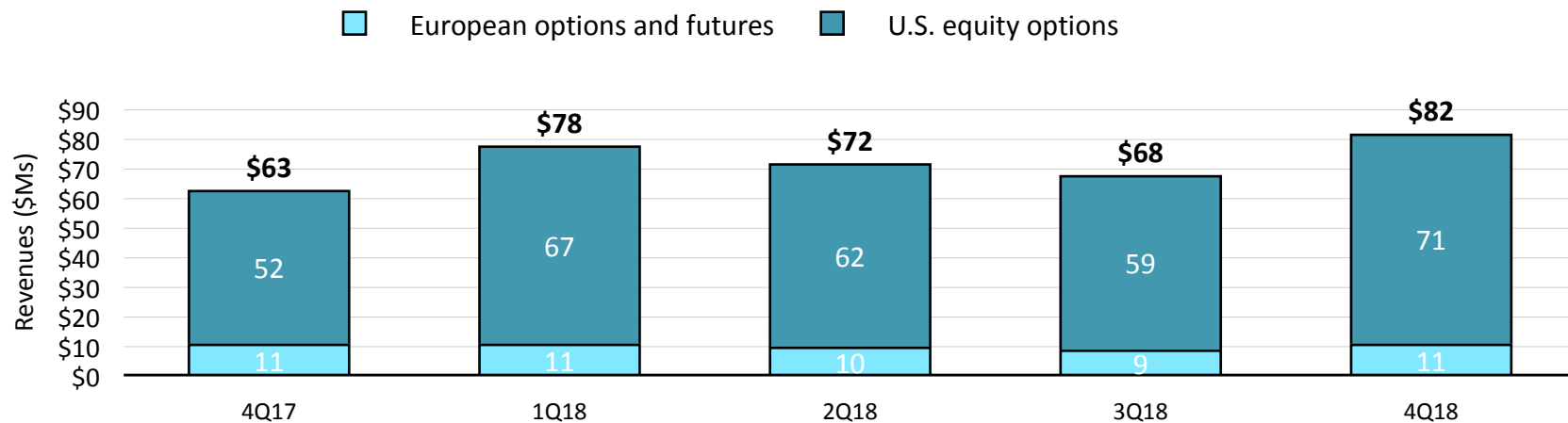
All figures in US\$ Millions	4Q18 actual	4Q17 actual	Total Variance		Organic Impact		Net Acquisition & Divestiture Impact ²		FX Impact (Prior Year Rates)	
			\$M	%	\$M	%	\$M	%	\$M	%
Market Services	\$249	\$222	\$27	12 %	\$31	14%	\$—	— %	(\$4)	(2)%
Corporate Services	133	131	2	2 %	4	3%	—	— %	(2)	(2)%
Information Services	187	156	31	20 %	26	17%	6	4 %	(1)	(1)%
Market Technology	76	71	5	7 %	6	8%	—	— %	(1)	(1)%
Other	—	50	(50)	(100)%	—	—%	(50)	(100)%	—	— %
Total Non-trading Segment Revenue¹	396	358	38	11 %	36	10%	6	2 %	(4)	(1)%
Total Revenue less transaction expenses	645	630	15	2 %	67	11%	(44)	(7)%	(8)	(1)%
Non-GAAP Operating Expenses	330	339	(9)	(3)%	25	7%	(27)	(8)%	(7)	(2)%
Non-GAAP Operating Income	315	291	24	8 %	42	14%	(17)	(6)%	(1)	— %
Non-GAAP Operating Margin	49%	46%	—	—	—	—	—	—	—	—

All figures in US\$ Millions	2018	2017	Total Variance		Organic Impact		Net Acquisition & Divestiture Impact ²		FX Impact (Prior Year Rates)	
			\$M	%	\$M	%	\$M	%	\$M	%
Market Services	\$958	\$881	\$77	9 %	\$75	9%	\$—	— %	\$2	— %
Corporate Services	528	501	27	5 %	25	5%	—	— %	2	— %
Information Services	714	588	126	21 %	63	11%	59	10 %	4	1 %
Market Technology	270	247	23	9 %	25	10%	—	— %	(2)	(1)%
Other	56	194	(138)	(71)%	—	—	(139)	(72)%	1	1 %
Total Non-trading Segment Revenue¹	1,512	1,336	176	13 %	113	8%	59	4 %	4	— %
Total Revenue less transaction expenses	2,526	2,411	115	5 %	188	8%	(80)	(3)%	7	— %
Non-GAAP Operating Expenses	1,320	1,271	49	4 %	75	6%	(27)	(2)%	1	— %

¹Represents our Corporate Services, Information Services and Market Technology segments.

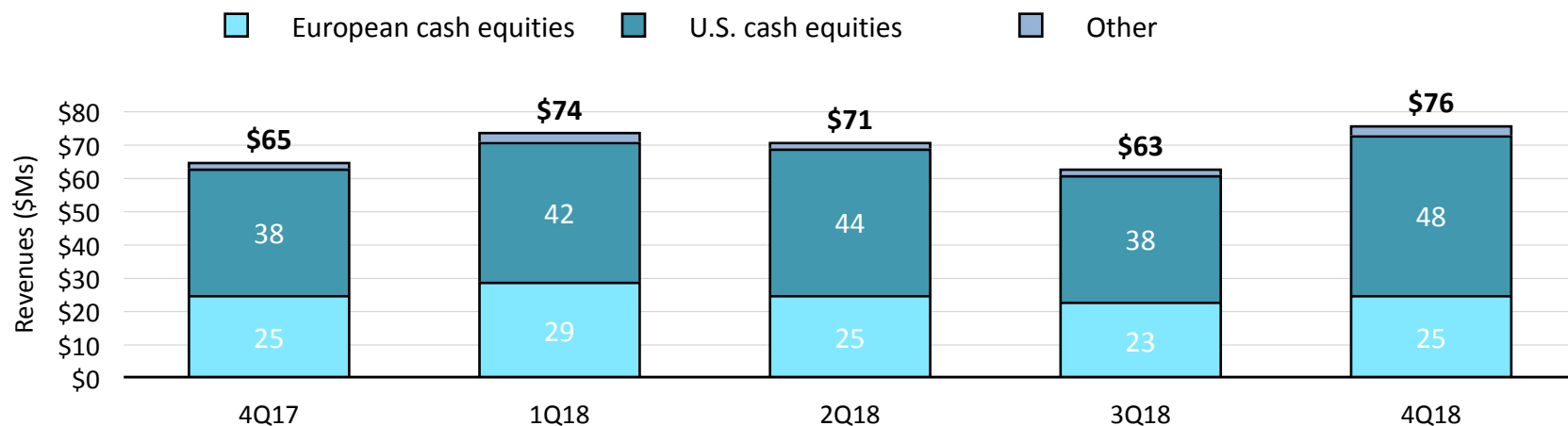
²Reflects the impact of the eVestment acquisition and the divestiture of our Public Relations Solutions and Digital Media Services businesses, net of costs previously allocated to the divested businesses that were not eliminated at the time of sale.

EQUITY DERIVATIVE TRADING AND CLEARING



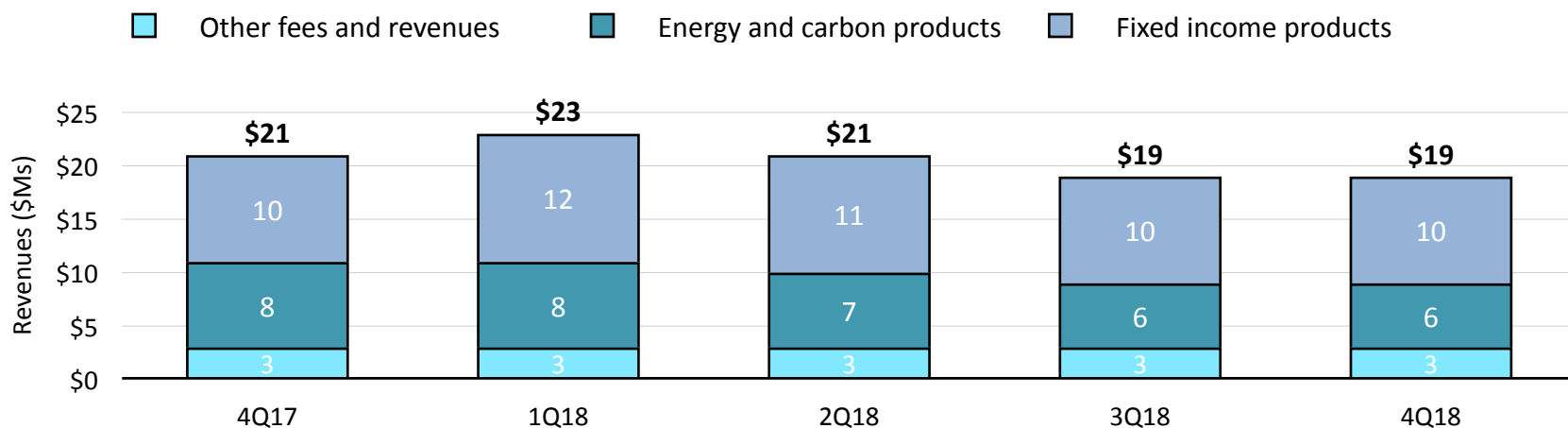
	4Q17	1Q18	2Q18	3Q18	4Q18
Net Revenues (US\$ in Millions)					
U.S. equity options	52	67	62	59	71
European options and futures	11	11	10	9	11
Equity Derivatives	63	78	72	68	82
Nasdaq Volumes					
U.S. equity options (millions of contracts)	399	474	417	407	482
European options and futures (millions of contracts)	19.8	22.3	21.9	18.1	22.6
Revenue Capture					
U.S. equity options (RPC)	\$ 0.13	\$ 0.14	\$ 0.15	\$ 0.15	\$ 0.15
European options and futures (RPC)	\$ 0.56	\$ 0.47	\$ 0.44	\$ 0.48	\$ 0.49
<i>SEK/US\$ average</i>	\$ 0.120	\$ 0.123	\$ 0.115	\$ 0.112	\$ 0.111
<i>Euro/US\$ average</i>	\$ 1.178	\$ 1.229	\$ 1.191	\$ 1.163	\$ 1.141

CASH EQUITY TRADING



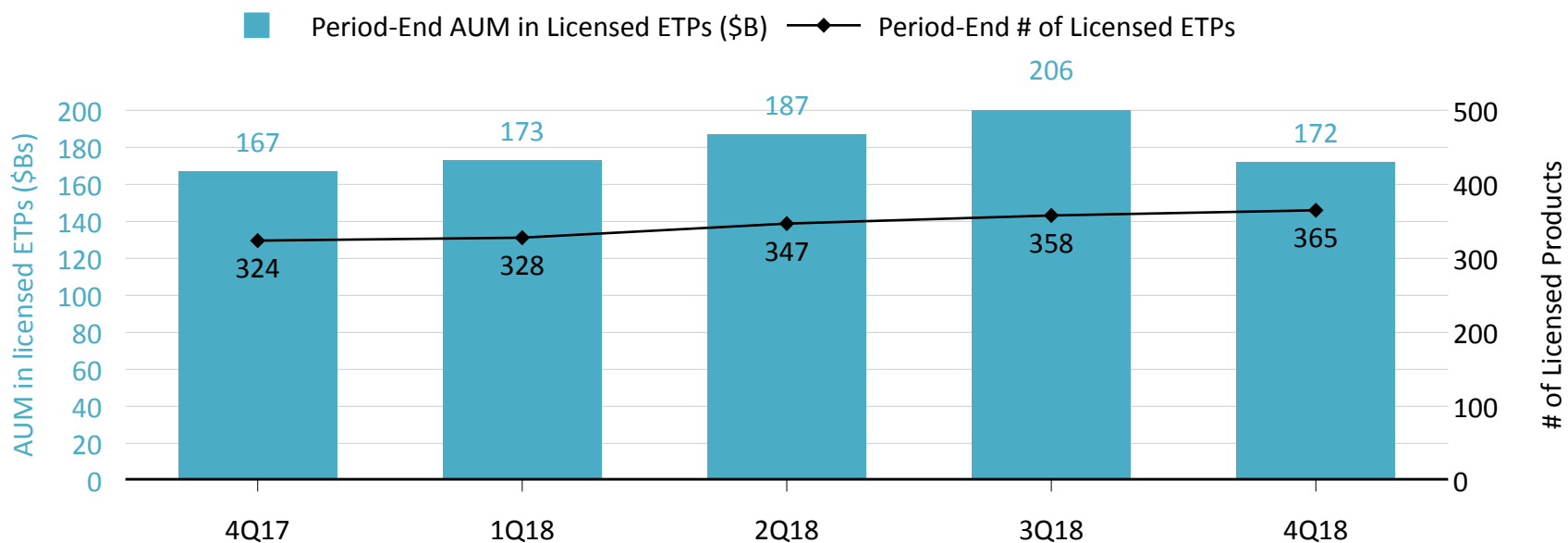
	4Q17	1Q18	2Q18	3Q18	4Q18
Net Revenues (US\$ in Millions)					
U.S. cash equities	38	42	44	38	48
European cash equities	25	29	25	23	25
Other	2	3	2	2	3
Cash Equity Trading	65	74	71	63	76
Nasdaq Volumes					
U.S. cash equities (billions of shares)	72.7	88.6	83.8	77.8	108.3
European cash equities value shares traded (\$B)	238	260	232	204	220
Revenue Capture					
U.S. cash equities revenue capture per 1000 shares	\$ 0.52	\$ 0.48	\$ 0.52	\$ 0.48	\$ 0.45
European cash equities revenue capture per \$1000 traded	\$ 0.11	\$ 0.11	\$ 0.11	\$ 0.12	\$ 0.11
<i>SEK/US\$ average</i>	\$ 0.120	\$ 0.123	\$ 0.115	\$ 0.112	\$ 0.111
<i>Euro/US\$ average</i>	\$ 1.178	\$ 1.229	\$ 1.191	\$ 1.163	\$ 1.141

FIXED INCOME AND COMMODITIES TRADING & CLEARING



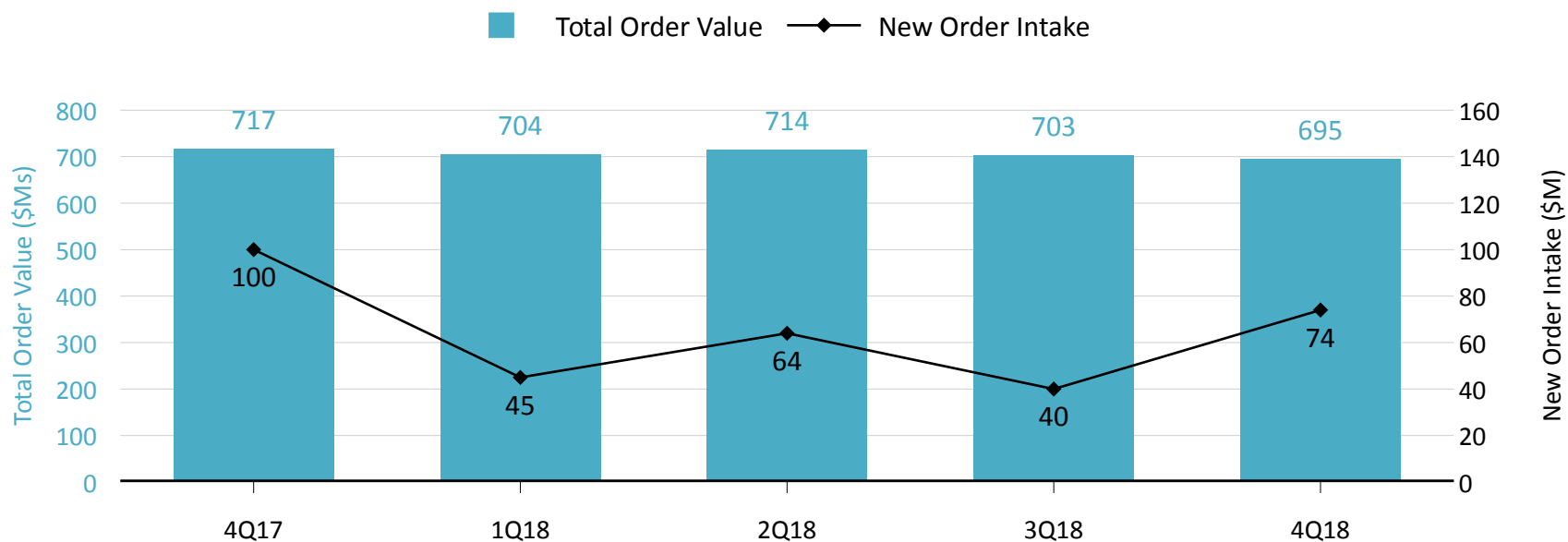
	4Q17	1Q18	2Q18	3Q18	4Q18
Net Revenues (US\$ in Millions)					
Fixed income products	10	12	11	10	10
Energy and carbon products	8	8	7	6	6
Other fees and revenues	3	3	3	3	3
Fixed Income and Commodities Trading and Clearing	21	23	21	19	19
Nasdaq Volumes					
U.S. Fixed income trading volume (billions of \$ notional)	4,030	5,156	4,134	3,194	3,499
European Fixed income products (millions of contracts)	8.3	8.3	7.5	7.9	9.4
Energy trading and clearing (TWh)	420	424	451	404	303
Revenue Capture					
European Fixed Income (RPC)	\$ 0.49	\$ 0.65	\$ 0.58	\$ 0.48	\$ 0.42
Energy trading and clearing (\$1000 per TWh traded and cleared)	\$ 19.08	\$ 20.30	\$ 16.68	\$ 15.55	\$ 19.90
<i>SEK/US\$ average</i>	\$ 0.120	\$ 0.123	\$ 0.115	\$ 0.112	\$ 0.111
<i>Euro/US\$ average</i>	\$ 1.178	\$ 1.229	\$ 1.191	\$ 1.163	\$ 1.141

INDEX



	4Q17	1Q18	2Q18	3Q18	4Q18
Period-End # of Licensed ETPs	324	328	347	358	365
Period-End AUM in Licensed ETPs (\$B)	167	173	187	206	172
Index Revenues (\$M)	46	50	50	52	54

MARKET TECHNOLOGY



	4Q17	1Q18	2Q18	3Q18	4Q18
New Order Intake (\$M)	100	45	64	40	74
Total Order Value (\$M)	717	704	714	703	695
Net Revenue (\$M)	71	60	66	68	76

RECONCILIATIONS OF U.S. GAAP to NON-GAAP

NON-GAAP ADJUSTMENTS

<i>(US\$ millions)</i>	4Q18	3Q18	2Q18	1Q18	4Q17	2018	2017	2016
Amortization expense of acquired intangible assets ⁽¹⁾	26	27	28	28	25	109	92	82
Merger and strategic initiatives expense ⁽²⁾	14	6	(10)	10	24	21	44	76
Restructuring charges ⁽³⁾	—	—	—	—	—	—	—	41
Asset impairment charge ⁽⁴⁾	—	—	—	—	—	—	—	578
Regulatory matter ⁽⁵⁾	—	—	—	—	—	—	—	6
Executive compensation ⁽⁶⁾	—	—	—	—	—	—	—	12
Extinguishment of debt ⁽⁷⁾	—	—	—	—	—	—	10	—
Net gain on divestiture of businesses ⁽⁸⁾	—	8	(41)	—	—	(33)	—	—
Clearing default ⁽⁹⁾	23	8	—	—	—	31	—	—
Other ⁽¹⁰⁾	11	2	3	2	2	17	5	5
Gain on sale of investment security ⁽¹¹⁾	(118)	—	—	—	—	(118)	—	—
Total Non-GAAP adjustments	(44)	51	(20)	40	51	27	151	800
Non-GAAP adjustment to the income tax (benefit) provision ⁽¹²⁾	14	(17)	15	(8)	(21)	4	(70)	(314)
Impact of newly enacted U.S. tax legislation ⁽¹³⁾	289	(4)	—	5	(89)	290	(89)	—
Excess tax benefits related to employee share-based compensation ⁽¹⁴⁾	(4)	—	—	(5)	(10)	(9)	(40)	—
Reversal of Swedish tax benefits ⁽¹⁵⁾	—	—	41	—	—	41	—	—
Reversal of Finnish tax benefits ⁽¹⁶⁾	—	—	—	—	—	—	—	27
Total Non-GAAP adjustments to the income tax benefit (provision)	299	(21)	56	(8)	(120)	326	(199)	(287)
Total Non-GAAP Adjustments, net of tax	255	30	36	32	(69)	353	(48)	513

Please see pages 22-23 for above footnotes

NON-GAAP ADJUSTMENTS FOOTNOTES

- (1) We amortize intangible assets acquired in connection with various acquisitions. Intangible asset amortization expense can vary from period to period due to episodic acquisitions completed, rather than from our ongoing business operations.
- (2) We have pursued various strategic initiatives and completed a divestiture and a number of acquisitions in recent years which have resulted in expenses which would not have otherwise been incurred. These expenses generally include integration costs, as well as legal, due diligence and other third party transaction costs and will vary based on the size and frequency of the activities described above.
- (3) During 2016, we completed our 2015 restructuring plan. For the year ended December 31, 2016, restructuring charges primarily related to severance and other termination benefits, asset impairment charges, and other charges.
- (4) For the year ended December 31, 2016, we recorded a pre-tax, non-cash intangible asset impairment charge of \$578 million related to the write-off of a trade name from an acquired business due to a continued decline in operating performance of the business during 2016 and a rebranding of our Fixed Income business.
- (5) During 2016, the Swedish Financial Supervisory Authority, or SFSA, completed their investigations of cybersecurity processes at our Nordic exchanges and clearinghouse. In December 2016, we were issued a \$6 million fine by the SFSA as a result of findings in connection with its investigation. The SFSA's conclusions related to governance issues rather than systems and platform security. This charge is recorded in regulatory expense in our Condensed Consolidated Statements of Income.
- (6) For the year ended December 31, 2016, we recorded \$12 million in accelerated expense due to the retirement of the company's former CEO for equity awards previously granted. This charge is recorded in compensation and benefits expense in our Condensed Consolidated Statements of Income.
- (7) For the year ended December 31, 2017, in connection with the early extinguishment of our 5.25% senior unsecured notes and the \$300 million repayment on our \$400 million senior unsecured term loan facility due November 25, 2019, we recorded a charge of \$10 million primarily related to a premium paid for early redemption. This charge is recorded in general, administrative and other expense in our Condensed Consolidated Statements of Income.
- (8) In April 2018, we completed the sale of the Public Relations Solutions and Digital Media Services businesses. For the year ended December 31, 2018 we recognized a pretax net gain of \$33 million which includes an \$8 million post-closing working capital adjustment recorded during the three months ended September 30, 2018.
- (9) For the year ended December 31, 2018, we recorded \$31 million in expenses related to the clearing default that occurred in September 2018. For the three months ended December 2018, we recorded a \$23 million charge associated with our capital relief program, where we will allocate capital back to default fund participants. The capital relief program is in addition to any funds to be recovered from the defaulting member. For the three months ended September 30, 2018, we recorded an \$8 million loss related to the default of a Nasdaq Clearing member. These charges are recorded in general, administrative and other expense in our Condensed Consolidated Statements of Income.

NON-GAAP ADJUSTMENTS FOOTNOTES

(10) For the three months ended September 30, 2018 and the three months and year ended December 31, 2018, other charges included litigation costs related to certain legal matters and are recorded in professional and contract services expense in our Condensed Consolidated Statements of Income. For the three months and year ended December 31, 2018, other charges also included certain charges related to a sales and use tax audit and VAT reserves which are recorded in general, administrative and other expense in our Condensed Consolidated Statements of Income. For the three months and year ended December 31, 2017, other charges related to a sublease loss reserve on space we occupied due to excess capacity and are recorded in occupancy expense in our Condensed Consolidated Statements of Income. For the year ended December 31, 2017, other charges also related to wind down costs associated with an equity method investment that was previously written off and are recorded in net income from unconsolidated investees in the Condensed Consolidated Statements of Income. For the year ended December 31, 2016, other charges primarily related to the impact of the write-off of an equity method investment, partially offset by a gain resulting from the sale of a percentage of a separate equity method investment which are recorded in net income from unconsolidated investees in the Condensed Consolidated Statements of Income.

(11) In December 2018, we sold our 5.0% ownership interest in LCH Group Holdings Limited for \$169 million in cash. As a result of the sale, we recognized a pre-tax gain of \$118 million (\$93 million after tax).

(12) The non-GAAP adjustment to the income tax provision includes the tax impact of each non-GAAP adjustment. In certain periods the adjustment may include the recognition of previously unrecognized tax benefits associated with positions taken in prior years and/or the impact of state tax rate changes.

(13) For the three months and year ended December 31, 2018, we recorded an increase to tax expense of \$289 million and \$290 million, respectively. In the fourth quarter of 2018, we finalized the provisional estimate related to the Tax Cuts and Jobs Act, resulting in a reduction to deferred tax assets relating to foreign currency translation losses. For the three months ended September 30, 2018, we recorded a decrease to tax expense due to the remeasurement of certain deferred tax assets and liabilities. For the three months ended March 31, 2018, we recorded an increase to tax expense which reflects the reduced federal tax benefit associated with state unrecognized tax benefits. For the three months and year ended December 31, 2017, we recorded a decrease to tax expense primarily related to the remeasurement of our net U.S. deferred tax liability at the lower U.S. federal corporate income tax rate.

(14) The excess tax benefits related to employee share-based compensation reflect the recognition of income tax effects of share-based awards when awards vest or are settled. These tax benefits were recorded in the income statement as a result of the adoption of accounting guidance beginning January 1, 2017.

(15) For the three months ended June 30, 2018 and year ended December 31, 2018, we recorded a reversal of previously recognized Swedish tax benefits, due to unfavorable court rulings received by other Swedish entities during the year, the impact of which is related to prior periods.

(16) For the year ended December 31, 2016, we recorded a reversal of previously recognized Finnish tax benefits due to unfavorable tax ruling received during the second quarter of 2016, the impact of which is related to prior periods.

RECONCILIATION OF U.S. GAAP to NON-GAAP: OPERATING EXPENSES, OPERATING INCOME, NET INCOME (LOSS) AND DILUTED EARNINGS (LOSS) PER COMMON SHARE

<i>(US\$ millions, except per share)</i>	4Q18	3Q18	4Q17	2018	2017	2016
U.S. GAAP operating expenses:	\$404	\$354	\$390	\$1,498	\$1,420	\$1,440
Total Non-GAAP adjustments:	(74)	(43)	(51)	(178)	(149)	(216)
Non-GAAP operating expenses:	\$330	\$311	\$339	\$1,320	\$1,271	\$1,224
U.S. GAAP operating income:	\$241	\$246	\$240	\$1,028	\$991	\$836
Total Non-GAAP adjustments:	74	43	51	178	149	216
Non-GAAP operating income:	\$315	\$289	\$291	\$1,206	\$1,140	\$1,052
Revenues less transaction based expenses	\$645	\$600	\$630	\$2,526	\$2,411	\$2,276
U.S.-GAAP operating margin ⁽¹⁾	37%	41%	38%	41%	41%	37%
Non-GAAP operating margin ⁽²⁾	49%	48%	46%	48%	47%	46%
U.S. GAAP net income (loss) attributable to Nasdaq:	(\$44)	\$163	\$246	\$458	\$729	\$106
Total Non-GAAP Adjustments, net of tax:	255	30	(69)	353	(48)	513
Non-GAAP net income attributable to Nasdaq:	\$211	\$193	\$177	\$811	\$681	\$619
U.S. GAAP diluted earnings (loss) per share ⁽³⁾:	(\$0.27)	\$0.97	\$1.45	\$2.73	\$4.30	\$0.63
Total adjustments from non-GAAP net income above:	1.53	0.18	(0.41)	2.11	(0.28)	3.04
Non-GAAP diluted earnings per share:	\$1.26	\$1.15	\$1.04	\$4.84	\$4.02	\$3.67

1. U.S. GAAP operating margin equals U.S. GAAP operating income divided by total revenues less transaction-based expenses.

2. Non-GAAP operating margin equals non-GAAP operating income divided by total revenues less transaction-based expenses.

3. Due to the net loss for the quarter ended December 31, 2018, the diluted earnings (loss) per share calculation excludes 3.2 million of employee stock awards as they were anti-dilutive.

NON-TRADING SEGMENTS ORGANIC REVENUE GROWTH

<u>Non-Trading Segments</u>			Total Variance		Organic Impact		Other Impact ⁽¹⁾	
<i>All figures in US\$ Millions</i>	Current Period	Prior-year Period	\$	%	\$	%	\$	%
4Q18 ²	\$396	\$358	38	11%	36	10%	2	1 %
3Q18 ²	378	338	40	12%	21	6%	19	6 %
2Q18 ²	372	324	48	15%	27	8%	21	6 %
1Q18	416	363	53	15%	30	8%	23	6 %
2018 ²	\$1,512	\$1,336	176	13%	113	8%	63	5 %
2017	1,530	1,449	81	6%	59	4%	22	2 %
2016	1,449	1,319	130	10%	53	4%	77	6 %
2015	1,319	1,271	48	4%	70	6%	(22)	(2)%
2014	1,271	1,139	132	12%	46	4%	86	8 %

1. Other impact includes acquisitions, divestitures, and changes in FX rates.
2. Reflects the impact of our divestiture of the Public Relations Solutions and Digital Media Services businesses.

MARKET SERVICES ORGANIC REVENUE GROWTH

<u>Market Services Segment</u>			Total Variance		Organic Impact		Other Impact ⁽¹⁾	
<i>All figures in US\$ Millions</i>	Current Period	Prior-year Period	\$	%	\$	%	\$	%
4Q18	\$249	\$222	27	12 %	31	14 %	(4)	(2)%
3Q18	222	219	3	1 %	7	3 %	(4)	(2)%
2Q18	237	222	15	7 %	13	6 %	2	1 %
1Q18	250	218	32	15 %	25	11 %	7	3 %
2018	\$958	\$881	77	9 %	75	9 %	2	— %
2017	881	827	54	7 %	(7)	(1)%	61	7 %
2016	827	771	56	7 %	(13)	(2)%	69	9 %
2015	771	796	(25)	(3)%	23	3 %	(48)	(6)%
2014	796	756	40	5 %	21	2 %	19	3 %

1. Other impact includes acquisitions, divestitures and changes in FX rates.

EBITDA: EARNINGS BEFORE INTEREST, TAXES, DEPRECIATION AND AMORTIZATION

<i>(US\$ millions)</i>	TTM	4Q18	3Q18	2Q18	1Q18
GAAP net income (loss) attributable to Nasdaq:	\$458	(\$44)	\$163	\$162	\$177
Income tax provision	606	372	46	126	62
Net income from unconsolidated investees	(17)	(4)	(6)	(5)	(2)
Other investment income	(8)	—	—	(8)	—
Net gain on the sale of businesses	(33)	—	8	(41)	—
Gain on sale of investment security	(118)	(118)	—	—	—
Net interest expense	140	35	35	35	36
GAAP operating income:	\$1,028	\$241	\$246	\$269	\$273
Non-GAAP Adjustments ⁽¹⁾	178	74	43	21	40
Non-GAAP operating income:	\$1,206	\$315	\$289	\$290	\$313
Depreciation and amortization of tangibles (Nasdaq)	101	25	26	25	24
EBITDA of Public Relations Solutions and Digital Media Services business pre-divestiture, and Quandl pre-acquisition	(19)	(1)	(1)	(1)	(16)
EBITDA:	\$1,288	\$339	\$314	\$314	\$321

1. Please see slide 24 for reconciliation of GAAP operating income to non-GAAP operating income.

TAX RATE: RECONCILIATION OF GAAP EFFECTIVE TAX RATE TO NON-GAAP EFFECTIVE TAX RATE

	Three Months Ended Dec 31, 2018		
<i>(US\$ millions, except effective tax rate)</i>	U.S. GAAP	Non-GAAP Adjustments ⁽¹⁾	Non-GAAP
Income before income taxes	\$328	(\$44)	\$284
Income tax provision	372	(299)	73
Net Income	(\$44)	\$255	\$211
Effective tax rate	113%	680%	26%

	Twelve Months Ended Dec 31, 2018		
<i>(US\$ millions, except effective tax rate)</i>	U.S. GAAP	Non-GAAP Adjustments ⁽¹⁾	Non-GAAP
Income before income taxes	\$1,064	\$27	\$1,091
Income tax provision	606	(326)	280
Net Income	\$458	\$353	\$811
Effective tax rate	57%	(1,207)%	26%

1. Please see slides 21-23 for details of non-GAAP adjustments and non-GAAP adjustment to the income tax provision.

DISCLAIMERS

Non-GAAP Information

In addition to disclosing results determined in accordance with U.S. GAAP, Nasdaq also discloses certain non-GAAP results of operations, including, but not limited to, net income attributable to Nasdaq, diluted earnings per share, operating income, and operating expenses, that include certain adjustments or exclude certain charges and gains that are described in the reconciliation table of U.S. GAAP to non-GAAP information provided at the end of this release. Management uses this non-GAAP information internally, along with U.S. GAAP information, in evaluating our performance and in making financial and operational decisions. We believe our presentation of these measures provides investors with greater transparency and supplemental data relating to our financial condition and results of operations. In addition, we believe the presentation of these measures is useful to investors for period-to-period comparisons of results as the items described below do not reflect ongoing operating performance.

These measures are not in accordance with, or an alternative to, U.S. GAAP, and may be different from non-GAAP measures used by other companies. Investors should not rely on any single financial measure when evaluating our business. We recommend investors review the U.S. GAAP financial measures included in this earnings release. When viewed in conjunction with our U.S. GAAP results and the accompanying reconciliations, we believe these non-GAAP measures provide greater transparency and a more complete understanding of factors affecting our business than U.S. GAAP measures alone.

We understand that analysts and investors regularly rely on non-GAAP financial measures, such as non-GAAP net income attributable to Nasdaq, non-GAAP diluted earnings per share, non-GAAP operating income and non-GAAP operating expenses to assess operating performance. We use these measures because they highlight trends more clearly in our business that may not otherwise be apparent when relying solely on U.S. GAAP financial measures, since these measures eliminate from our results specific financial items, such as those described below, that have less bearing on our ongoing operating performance.

Foreign exchange impact: In countries with currencies other than the U.S. dollar, revenues and expenses are translated using monthly average exchange rates. Certain discussions in this release isolate the impact of year-over-year foreign currency fluctuations to better measure the comparability of operating results between periods. Operating results excluding the impact of foreign currency fluctuations are calculated by translating the current period's results by the prior period's exchange rates.

Adopted accounting standards

ASU 2016-09: "Compensation —Stock Compensation (Topic 718)"

ASU 2016-15: "Statement of Cash flows (Topic 230): Classification Of Certain Cash Receipts and Cash Payments"

ASU 2016-18: "Statement of Cash flows (Topic 230): Restricted Cash"

DISCLAIMERS

Cautionary Note Regarding Forward-Looking Statements

Information set forth in this communication contains forward-looking statements that involve a number of risks and uncertainties. Nasdaq cautions readers that any forward-looking information is not a guarantee of future performance and that actual results could differ materially from those contained in the forward-looking information. Such forward-looking statements include, but are not limited to (i) projections relating to our future financial results, total shareholder returns, growth, trading volumes, products and services, order backlog, taxes and achievement of synergy targets, (ii) statements about the closing or implementation dates and benefits of certain acquisitions and other strategic, restructuring, technology, de-leveraging and capital allocation initiatives, (iii) statements about our integrations of our recent acquisitions, (iv) statements relating to any litigation or regulatory or government investigation or action to which we are or could become a party, and (v) other statements that are not historical facts. Forward-looking statements involve a number of risks, uncertainties or other factors beyond Nasdaq's control. These factors include, but are not limited to, Nasdaq's ability to implement its strategic initiatives, economic, political and market conditions and fluctuations, government and industry regulation, interest rate risk, U.S. and global competition, and other factors detailed in Nasdaq's filings with the U.S. Securities and Exchange Commission, including its annual reports on Form 10-K and quarterly reports on Form 10-Q which are available on Nasdaq's investor relations website at <http://ir.nasdaq.com> and the SEC's website at www.sec.gov. Nasdaq undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise.

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