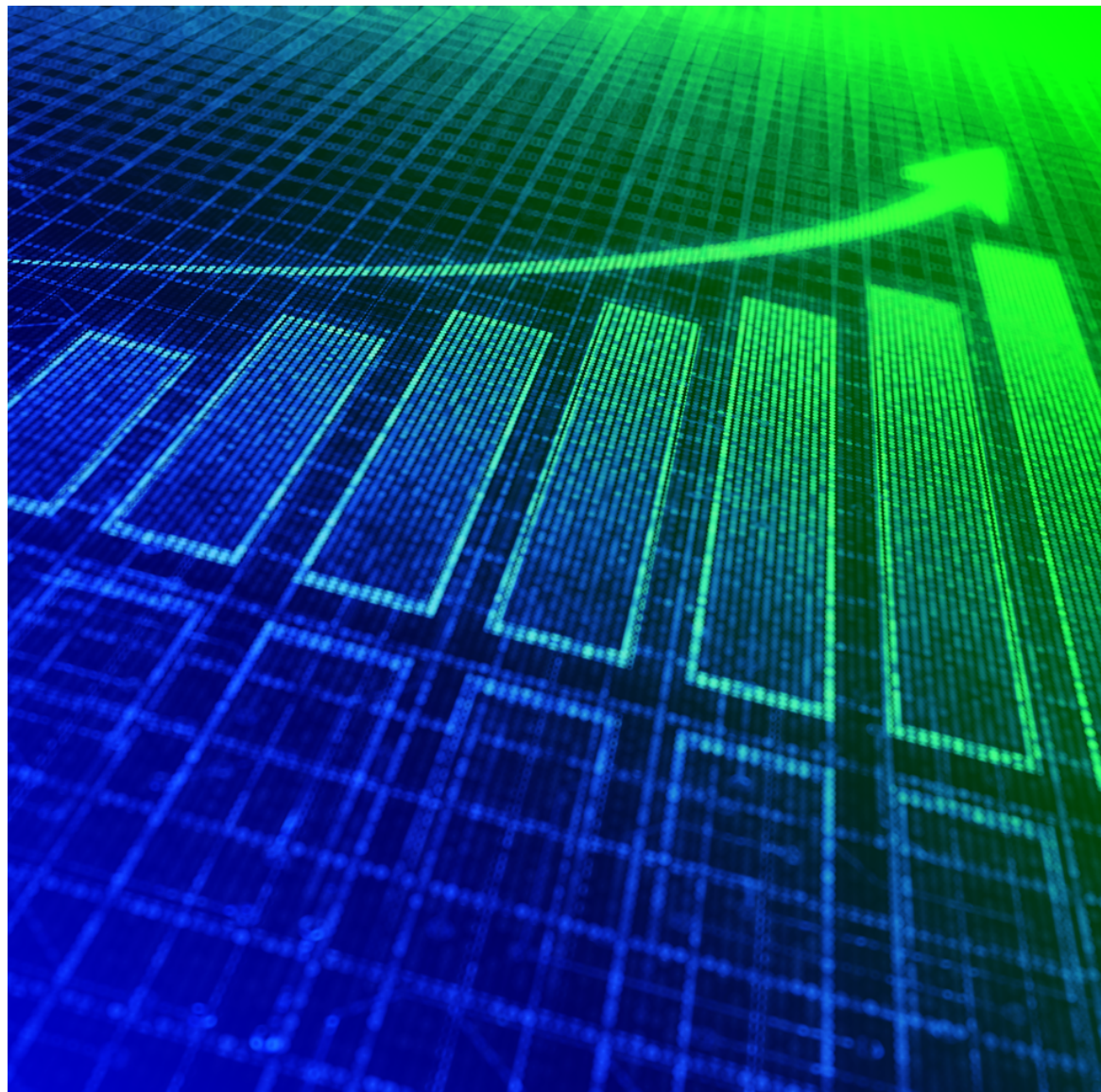


4Q19

Earnings Supplement

February 6, 2020



CAUTIONARY STATEMENT REGARDING FORWARD LOOKING STATEMENTS

This presentation may contain “forward-looking statements” made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Statements regarding ICE’s business that are not historical facts are forward-looking statements that involve risks, uncertainties and assumptions that are difficult to predict. Although we believe the expectations reflected in these forward-looking statements are reasonable, these statements are not guarantees of future results, performance, levels of activity or achievements, and actual results may differ materially from what is expressed or implied in any forward-looking statement. The factors that might affect our performance include, but are not limited to: conditions in global financial markets, the economy and political and social conditions; changes in domestic and foreign laws, regulations, rules or government policy with respect to financial markets, climate change or our businesses generally, including increased regulatory scrutiny or enforcement actions and our ability to comply with these requirements; volatility in our markets; our business environment and industry trends, including our competition; the success of our clearing houses and our ability to minimize the risks associated with operating multiple clearing houses in multiple jurisdictions; the success of our exchanges and their compliance with regulatory and oversight responsibilities; the resilience of our electronic platforms and soundness of our business continuity and disaster recovery plans; changes in renewal rates of subscription-based data revenues; our ability to execute our growth strategy, identify and effectively pursue, implement and integrate acquisitions and strategic alliances and realize the synergies and benefits of such transactions; performance and reliability of our technology and the technology of our third party service providers; our ability to keep pace with technological developments and client preferences; our ability to ensure that the technology we utilize is not vulnerable to cyber-attacks, hacking and other cybersecurity risks; our ability to identify trends and adjust our business to respond to such trends; our ability to evolve our benchmarks and indices in a manner that maintains or enhances their reliability and relevance; the accuracy of our estimates and expectations; our belief that cash flows from operations will be sufficient to service our current levels of debt and fund our working capital needs and capital expenditures for the foreseeable future; our ability to secure additional debt; our ability to maintain existing customers and attract new customers; our ability to offer new products and services, leverage our risk management capabilities and enhance our technology in a timely and cost-effective manner; our ability to attract and retain key talent; our ability to protect our intellectual property rights, including the costs associated with such protection, and our ability to operate our business without violating the intellectual property rights of others; potential adverse results of litigation and regulatory actions and proceedings; our ability to realize the expected benefits of our investment in Bakkt; and our ability to detect illegal activity through digital currency transactions that are easily exploited. For a discussion of such risks and uncertainties, which could cause actual results to differ from those contained in the forward-looking statements, see ICE’s Securities and Exchange Commission (SEC) filings, including, but not limited to ICE’s most recent Annual Report on Form 10-K for the year ended December 31, 2019, as filed with the SEC on February 6, 2020. These filings are available in the Investors section of our website. We caution you not to place undue reliance on these forward-looking statements. Any forward-looking statement speaks only as of the date on which such statement is made, and we undertake no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of an unanticipated event. New factors emerge from time to time, and it is not possible for management to predict all factors that may affect our business and prospects. Further, management cannot assess the impact of each factor on the business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

GAAP AND NON-GAAP RESULTS

This presentation includes non-GAAP measures that exclude certain items we do not consider reflective of our cash operations and core business performance. We believe that the presentation of these non-GAAP measures provides investors with greater transparency and supplemental data relating to our financial condition and results of operations. These adjusted non-GAAP measures should be considered in context with our GAAP results. A reconciliation of Adjusted Net Income Attributable to ICE, Adjusted Earnings Per Share, Adjusted Operating Income, Adjusted Operating Margin and Adjusted Operating Expenses to the equivalent GAAP measure and an explanation of why we deem these non-GAAP measures meaningful appears in our Form 10-K and in the appendix to this presentation. The reconciliation of Adjusted Effective Tax Rate, Free Cash Flow and Adjusted Debt-to-EBITDA to the equivalent GAAP results appear in the appendix to this presentation. Our Form 10-K, earnings press release and this presentation are available in the Investors and Media section of our website at www.theice.com.

EXPLANATORY NOTES

Throughout this supplement:

- All net revenue figures represent revenues less transaction-based expenses for periods shown.
- All earnings per share figures represent diluted weighted average share count on continuing earnings.
- Net revenues in constant currency are calculated holding both the pound sterling and euro at the average exchange rate from 2018, 1.3356 and 1.1813, respectively, and from 4Q18, 1.2861 and 1.1410, respectively.
- References to Return on Invested Capital, or ROIC, are equal to $\text{TTM (Operating Income} \times (1 - \text{Tax Rate}) \text{) / (Avg Debt} + \text{Avg Shareholders Equity} + \text{Avg Non-Controlling Interest} - \text{Avg Cash, Cash Equiv, \& ST Investments})$. References to Weighted Average Cost of Capital, or WACC, are equal to $(\text{Cost of Equity} \times \% \text{ of Equity}) + \{(\text{Cost of Debt} \times (1 - \text{Tax Rate})) \times \% \text{ of Debt}\}$.

ICE FOURTH QUARTER 2019 EARNINGS CALL PARTICIPANTS

Management:



Jeff Sprecher
Chairman & CEO
Chairman, NYSE



Ben Jackson
President



Scott Hill
Chief Financial Officer

Investor Relations:

- Warren Gardiner, CFA
- Mary Caroline O'Neal, CPA

Vice President, Investor Relations
Manager, Investor Relations

warren.gardiner@theice.com
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4Q19 PERFORMANCE

in millions except per share amounts

INCOME STATEMENT HIGHLIGHTS		4Q19	4Q18	% Chg
Net Revenues		\$1,298	\$1,308	(1)%
Adj. Op Expenses		\$570	\$553	3%
Adj. Op Income		\$728	\$755	(4)%
Adj. Op Margin		56%	58%	(2 pts)
Adj. Diluted EPS		\$0.95	\$0.94	1%
Adj. Effective Tax Rate		22%	23%	(1 pt)
CASH METRICS		2019	2018	% Chg
Op Cash Flow		\$2,659	\$2,533	5%
Cap Ex & Cap Software		\$305	\$280	9%
Free Cash Flow		\$2,320	\$2,286	2%

Strong Operating Performance

FY19 data revenue **+5%** y/y, CC

FY19 trading & clearing revenue
+6% y/y, CC

4Q19 adj. EPS **+1%** y/y

FY19 adj. EPS **+8%** y/y

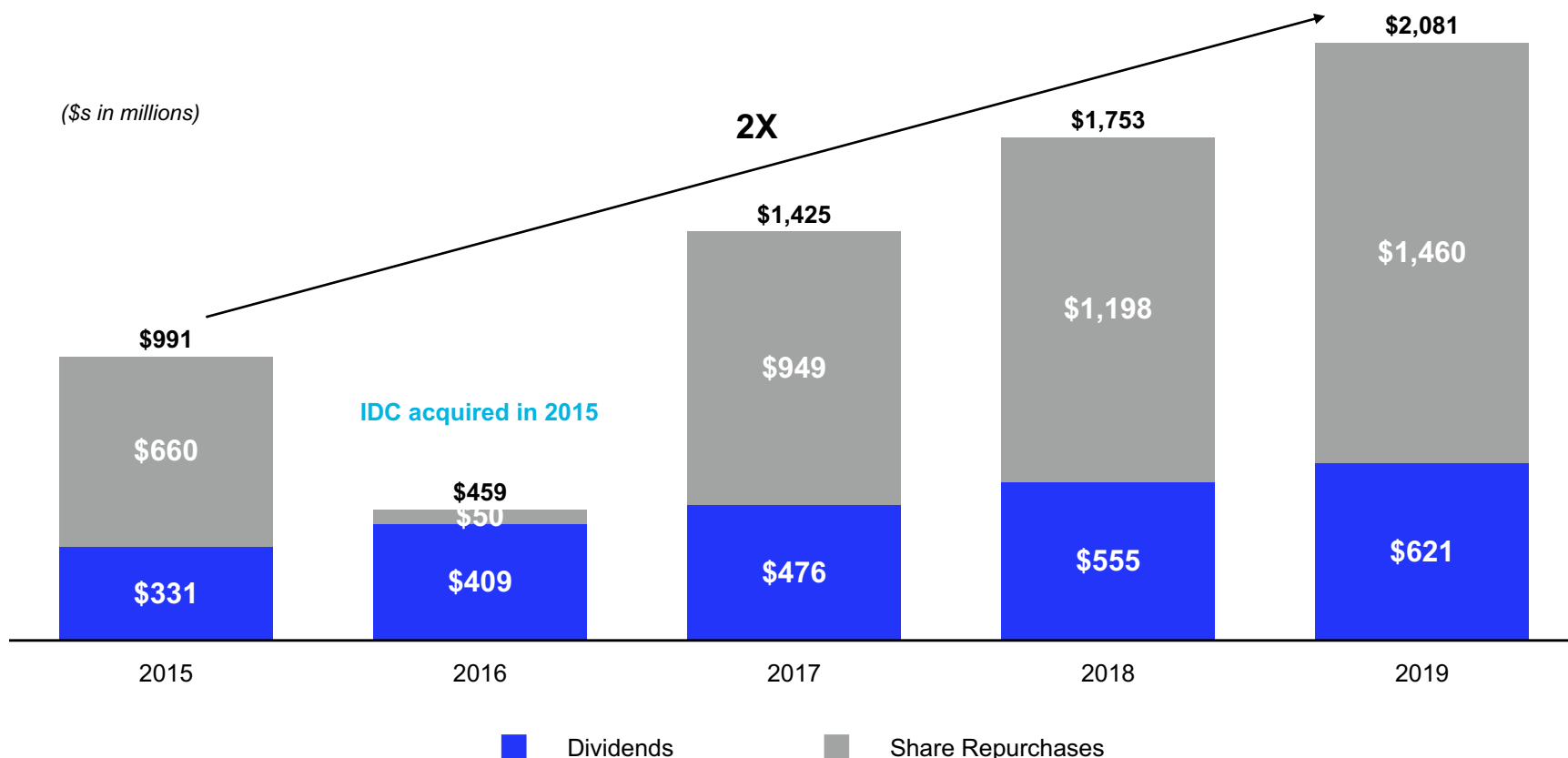
Op cash flow **+5%** y/y

TTM ROIC 9% / WACC 6%

Adjusted figures represent non-GAAP measures. Please refer to slides in the appendix for reconciliations to the equivalent GAAP measures.

RECORD ANNUAL CAPITAL RETURN IN 2019

- Record capital return of \$2.1B in 2019, +19% y/y, more than double pre-IDC capital return
- Leverage 2.3x debt-to-EBITDA⁽¹⁾
- 1Q20 dividend \$0.30, +9% y/y; +14% CAGR since inception
- **\$2.4B share repurchase program effective Jan 1, 2020; expect to deploy over ~6 quarters**

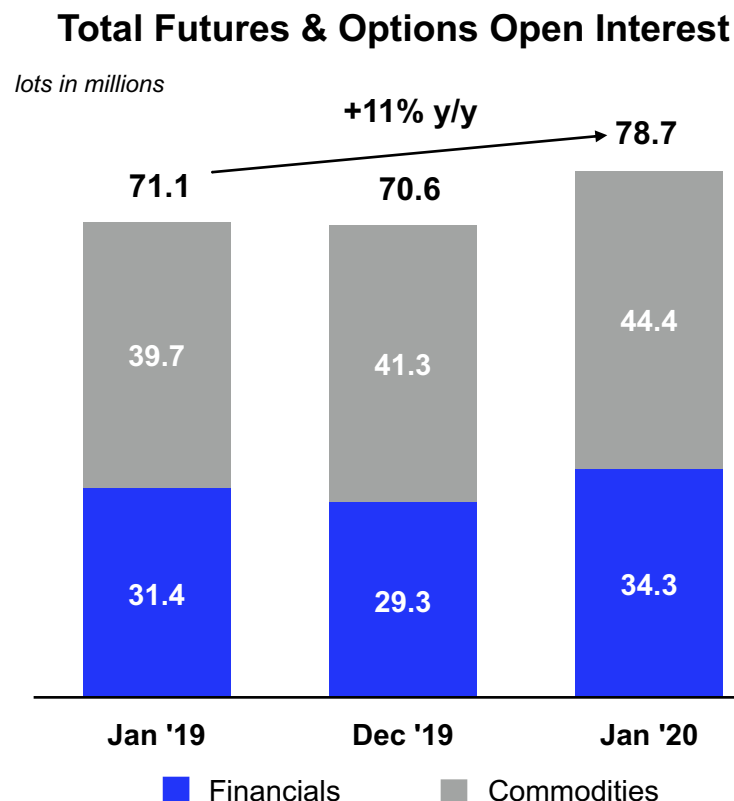


(1) Adjusted debt-to-EBITDA reflects the ratio of debt to adjusted EBITDA for the trailing twelve months. This reflects a non-GAAP measure. Please refer to slides in the appendix for reconciliation to the equivalent GAAP measure.

4Q19 TRADING & CLEARING PERFORMANCE

- Record **4Q19** European natural gas ADV +41% y/y, other crude & refined products ADV +7% y/y, record ags & metals ADV +8% y/y
- January ADV** +27% y/y including **record energy ADV +29% y/y**, **record oil ADV +41%**, **record EU natural gas ADV +117% y/y**, ags & metals ADV +30% y/y, Sterling ADV +72% y/y, MSCI ADV +18% y/y
- January open interest (OI)** +11% y/y, including oil OI +9% y/y, EU natural gas OI +60% y/y, record ags & metals OI +14% y/y, Sterling OI +36% y/y

\$ (in millions)	4Q19	4Q18	% Chg	Const Curr
Revenue, net:				
Energy	\$243	\$257	(5)%	(5)%
Ags & Metals	57	54	5%	4%
Financials	80	92	(13)%	(13)%
Cash Equities & Equity Options	73	93	(23)%	(23)%
Fixed Income & Credit	96	83	17%	17%
OTC & Other Transactions	11	13	(9)%	(8)%
Other Revenue	66	65	2%	2%
Total Revenue	\$626	\$657	(5)%	(4)%
Adj. Operating Expenses	\$246	\$232	6%	
Adj. Operating Margin	61%	65%	(4 pts)	



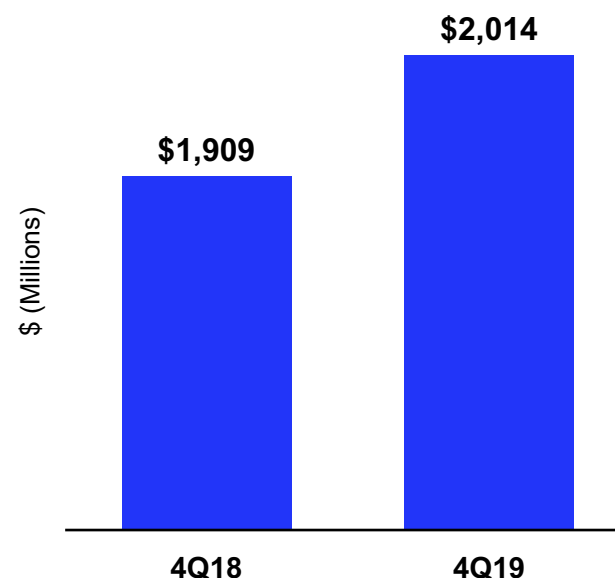
Adjusted figures represent non-GAAP measures. Please refer to slides in the appendix for reconciliations to the equivalent GAAP measures.

4Q19 DATA & LISTINGS PERFORMANCE

- 4Q19 data revenue growth driven by continued strength in ICE Data Indices, futures exchange data and the ICE Global Network
- FY19 data revenue +5% y/y, CC; 40th consecutive quarter of year-over-year growth**
- Annual Subscription Value (ASV)⁽¹⁾ +5% y/y, CC entering 1Q20; P&A ASV +5% y/y, CC
- The NYSE was the global leader in helping customers raise nearly \$112B in 2019, including \$29B in IPO proceeds via 58 IPOs

\$ (in millions)	4Q19	4Q18	% Chg	Const Curr
Revenue:				
Pricing and Analytics	274	264	4%	4%
Exchange Data and Feeds	176	174	2%	2%
Desktops and Connectivity	109	101	7%	7%
Data Total	559	539	4%	4%
Listings	113	112	—	—
Total Revenue	\$672	\$651	3%	3%
Adj. Operating Expenses	\$324	\$321	1%	
Adj. Operating Margin	52%	51%	1 pt	

Annual Subscription Value



(1) ASV is defined as the annual value of subscriptions under contract for the succeeding twelve months. ASV does not include new sales, contract terminations or price changes that may occur during that twelve month period or certain data services that are not subscription-based.

Adjusted figures represent non-GAAP measures. Please refer to slides in the appendix for reconciliations to the equivalent GAAP measures.

2019 PERFORMANCE & 2020 GUIDANCE

in millions except per share amounts

INCOME STATEMENT HIGHLIGHTS		2019	2018	% Chg
Net Revenues		\$5,202	\$4,979	4%
Adj. Op Expenses		\$2,189	\$2,071	6%
Adj. Op Income		\$3,013	\$2,908	4%
Adj. Op Margin		58%	58%	—
Adj. Diluted EPS		\$3.88	\$3.59	8%
Adj. Effective Tax Rate		22%	23%	(1 pt)
CASH METRICS		2019	2018	% Chg
Op Cash Flow		\$2,659	\$2,533	5%
Cap Ex & Cap Software		\$305	\$280	9%
Free Cash Flow		\$2,320	\$2,286	2%

Financial Guidance

- **FY data revenue** \$2.29 - \$2.33B
 - **1Q20 data revenue** \$560 - \$565M
- **FY cap ex/software** \$290 - \$320M
- **1Q20 non-operating expense⁽¹⁾** \$55 - \$60M
- **FY effective tax rate⁽²⁾** 22% - 24%
- **Share count** 553 - 559M for 1Q20; includes January share repurchases

Expenses

- **FY adj. expenses \$2.275 - \$2.325B**
 - \$50M of Simplifile, license reclass and 2019 non-recurring items
 - \$30 - \$40M in merit pay & performance bonuses
 - \$15 - \$25M expenses tied to revenue growth
 - \$20 - \$30M tech & ops investments
 - \$15 - \$25M of expense efficiencies
- **1Q20 adj. expenses** \$570 - \$580M

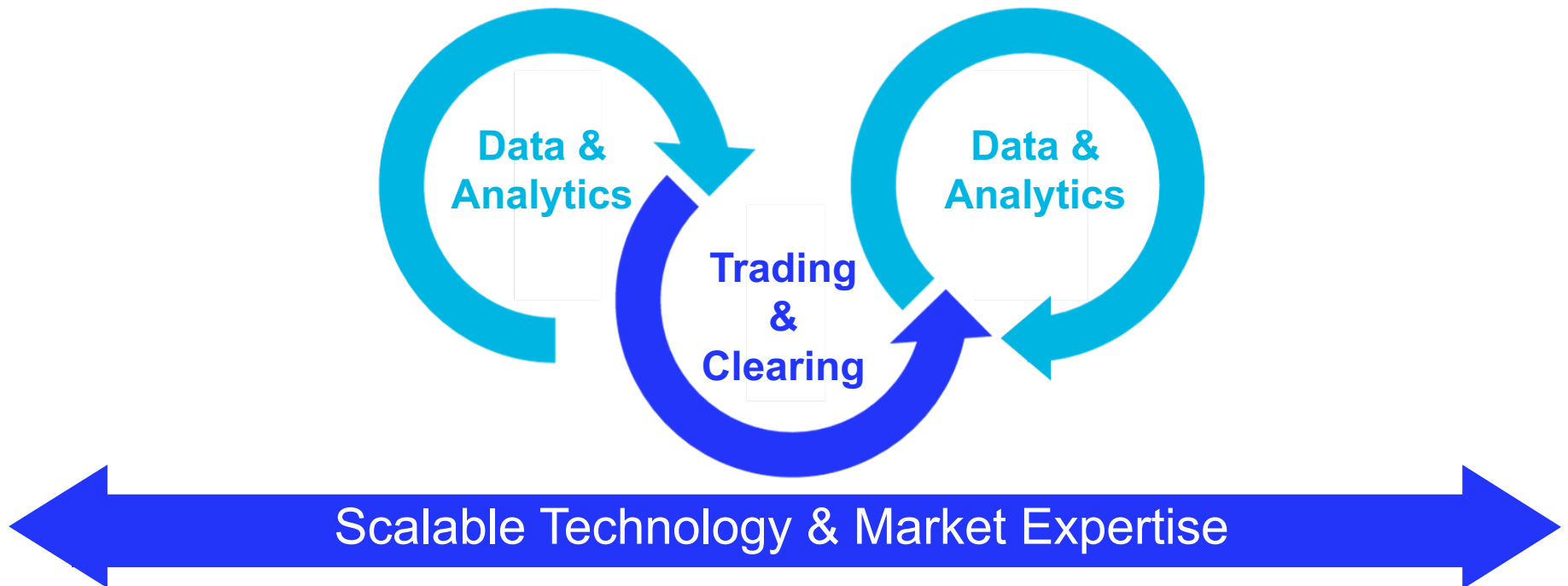
(1) Non-operating expense includes interest income, interest expense and net other income.

(2) This represents 2020 full year guidance for both the GAAP and non-GAAP effective tax rates but note that the GAAP effective tax rate is more susceptible to diverging from this guidance based on items outside the normal course of business that are adjusted for to derive our non-GAAP results. Such items can be unknown, unpredictable or uncertain, requiring unreasonable efforts to determine with any precision and which could potentially be confusing or misleading.

Adjusted figures represent non-GAAP measures. Please refer to slides in the appendix for reconciliations to the equivalent GAAP measures.

A SYNERGISTIC MODEL SUPPORTED BY TECHNOLOGY & EXPERTISE

- Leverage existing distribution and infrastructure to create new solutions to bring efficiencies to customers
- Plan to launch **ESG reference data** service providing a standardized data set including ~500 ESG data points
- Record 2019 natural gas revenue
- **ICE Futures Abu Dhabi** plans to bring transparency to the widely used Murban crude market
- Digital mortgage solutions continue to expand with **record eNotes created and record eRecording volumes**
- **Bakkt announced acquisition of Bridge2Solutions**, expanding capabilities to manage, convert and transact a broad array of digital assets on a single platform
- Total digital asset market stands at over \$1 trillion in value



CONSISTENT TRACK RECORD OF GROWTH

2019 Highlights

Record data rev +5% y/y, CC

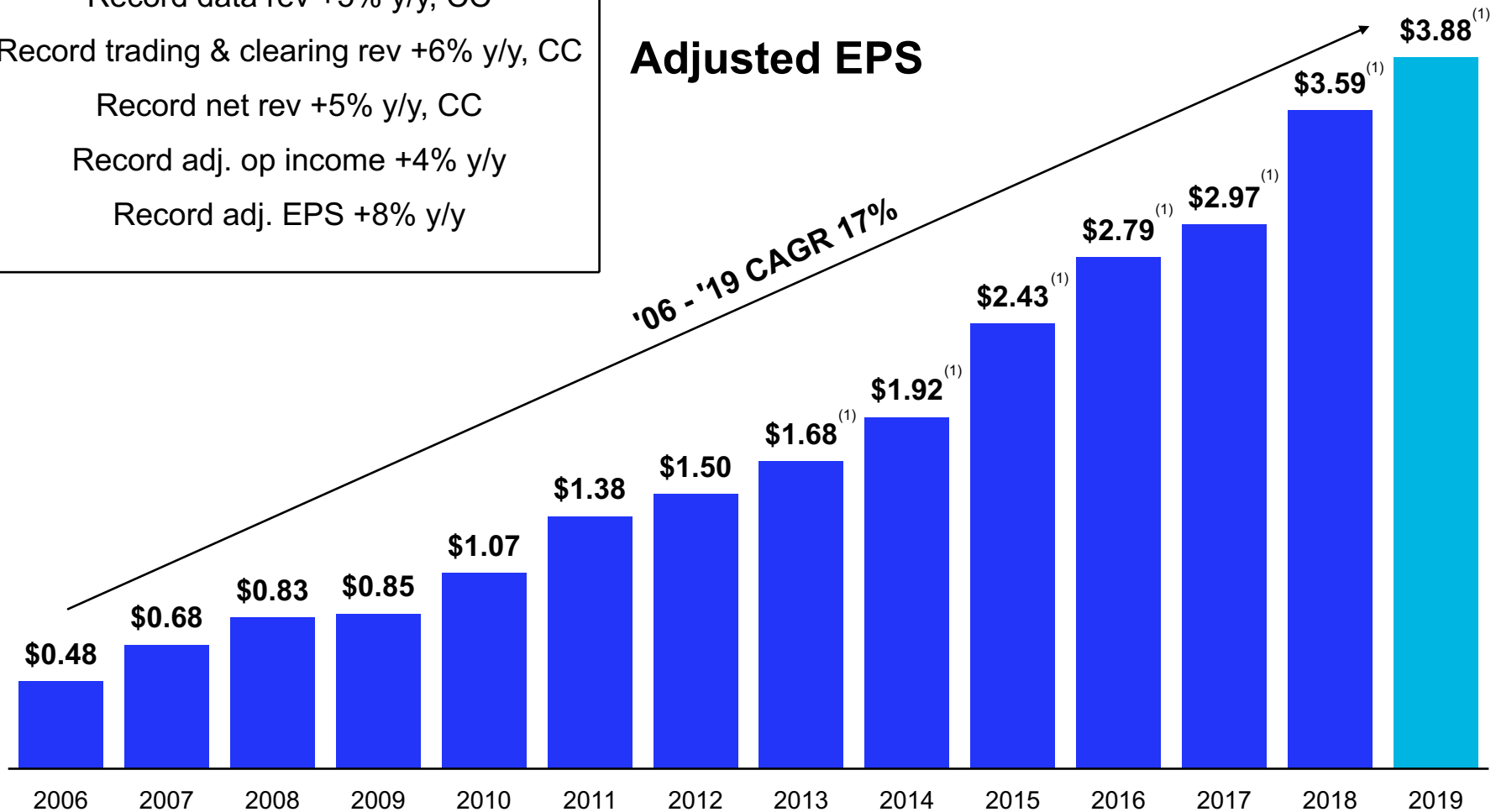
Record trading & clearing rev +6% y/y, CC

Record net rev +5% y/y, CC

Record adj. op income +4% y/y

Record adj. EPS +8% y/y

Adjusted EPS



(1) Adjusted figures represent non-GAAP measures. Please refer to slides in the appendix for reconciliations to the equivalent GAAP measures.

APPENDIX

DATA SERVICES SUPPLEMENTAL DATA

Annual Subscription Value (ASV)⁽¹⁾

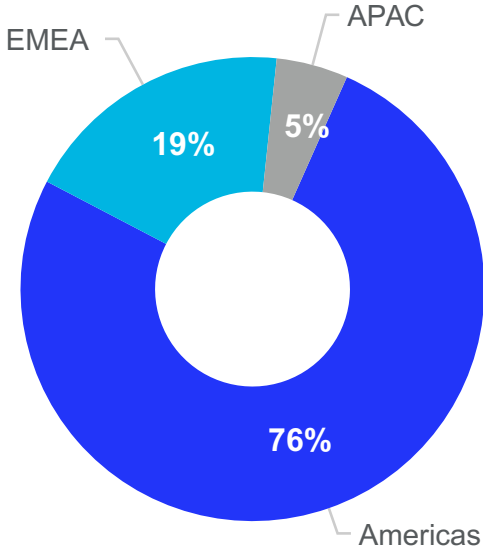
in millions	4Q19	3Q19 ⁽²⁾	2Q19 ⁽²⁾	1Q19 ⁽²⁾	4Q18 ⁽²⁾
ASV⁽¹⁾	\$2,014	\$1,982	\$1,974	\$1,963	\$1,909
Adjusted for:					
FX	—	16	7	3	7
ASV, CC	2,014	1,998	1,981	1,966	1,916

(1) ASV is defined as the annual value of subscriptions under contract for the succeeding twelve months. ASV does not include new sales, contract terminations or price changes that may occur during that twelve month period or certain data services that are not subscription-based.

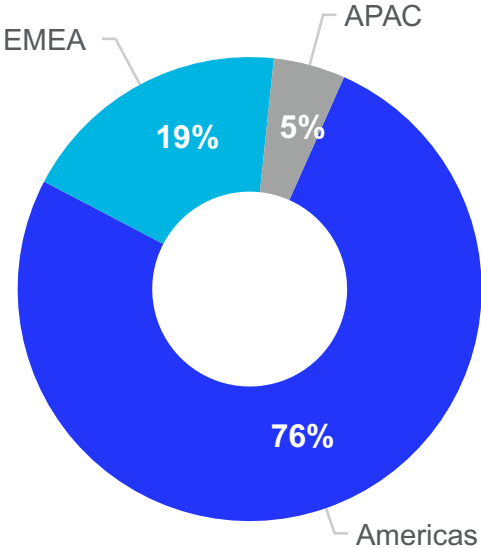
(2) ASV has been adjusted to more accurately reflect our subscription-based revenue.

DATA SERVICES SUPPLEMENTAL DATA

4Q19 CC Data Revenue

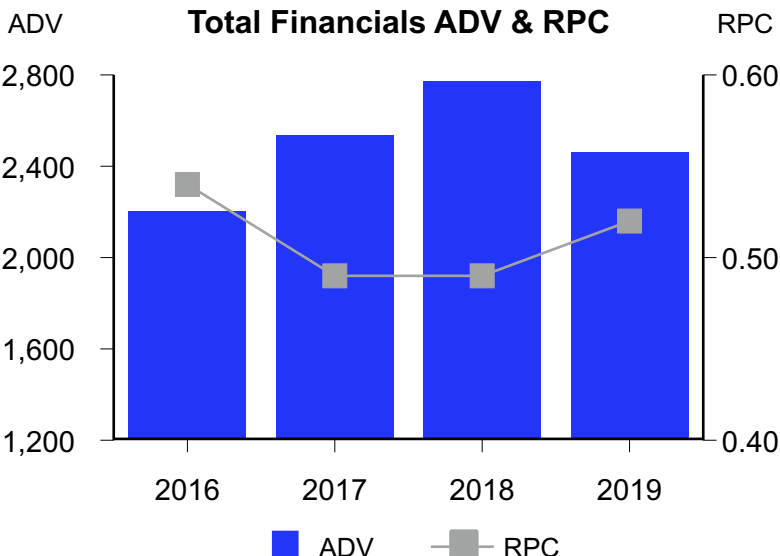
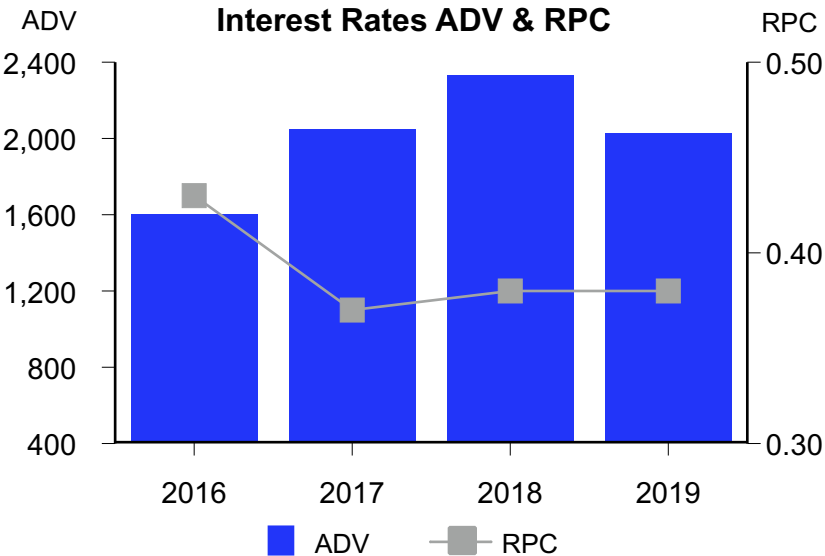
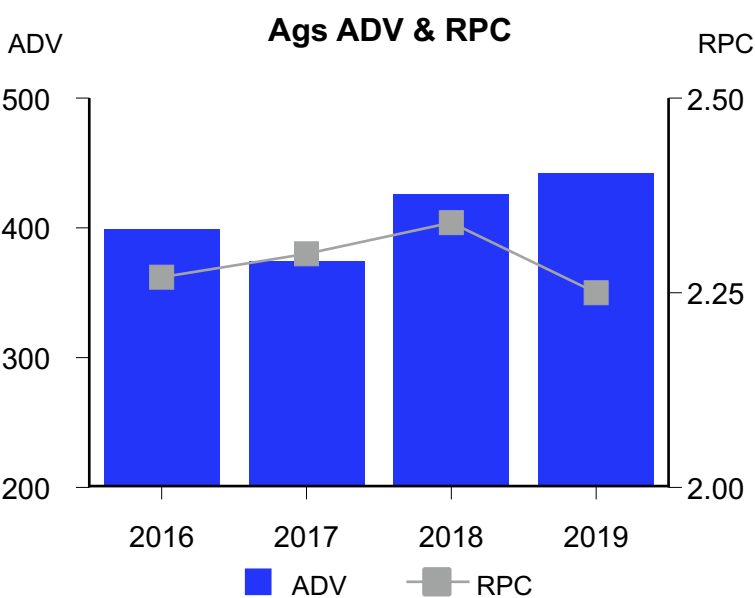
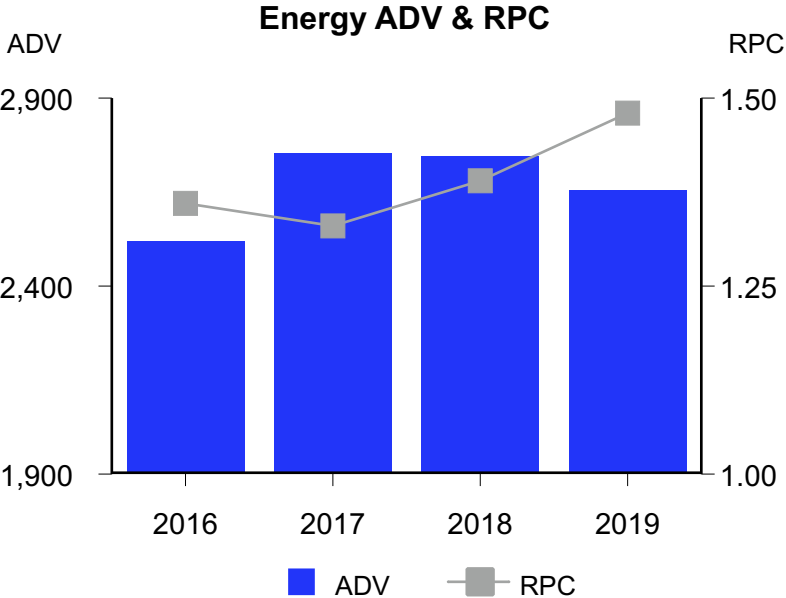


2019 CC Data Revenue



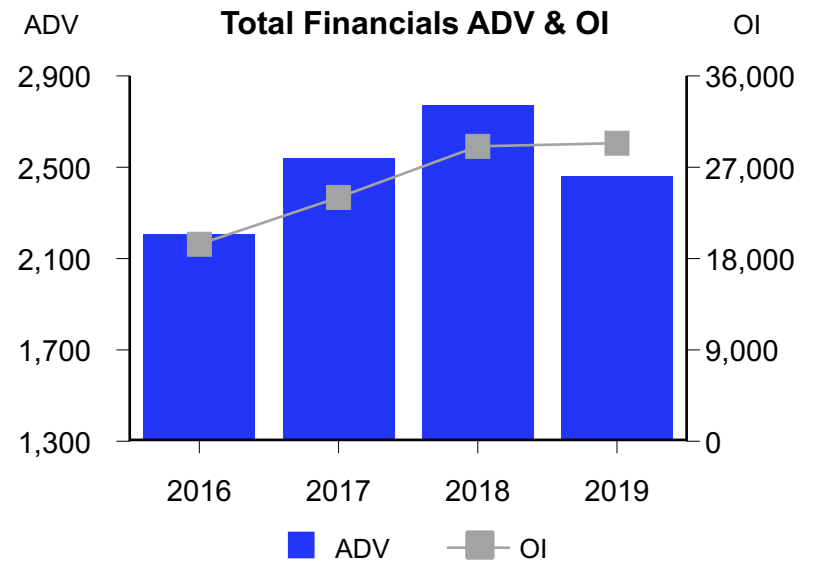
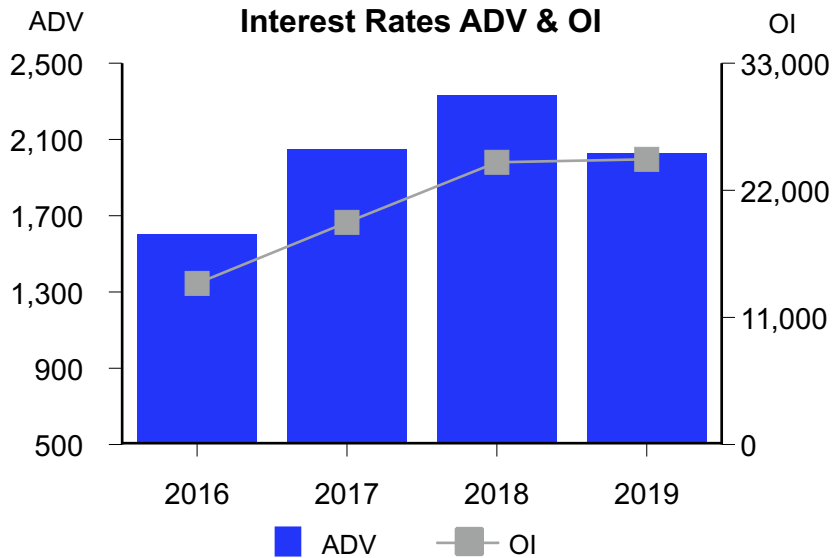
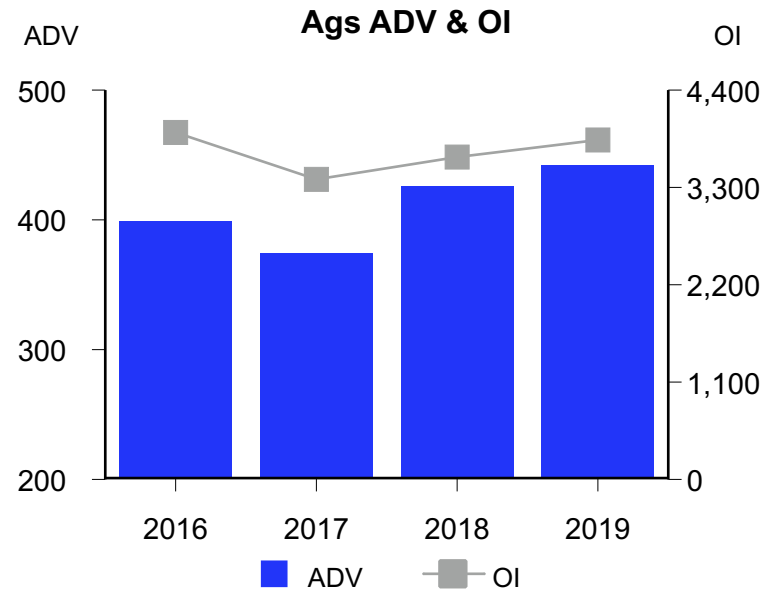
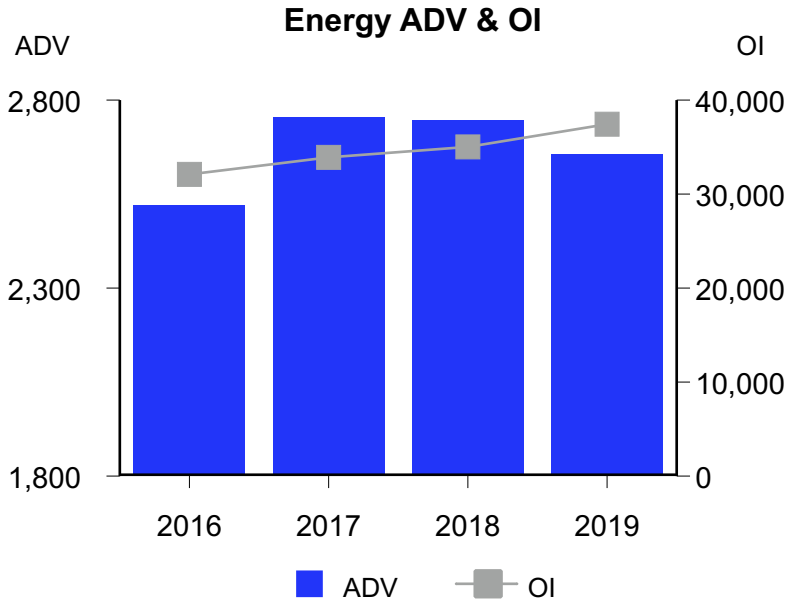
AVERAGE DAILY VOLUME AND RPC TRENDS

lots in thousands



AVERAGE DAILY VOLUME AND OI TRENDS

lots in thousands



GAAP RESULTS

INCOME STATEMENT HIGHLIGHTS in millions except per share amounts	GAAP 4Q19	GAAP 4Q18	% Chg	GAAP 2019	GAAP 2018	% Chg
Net revenues	\$1,298	\$1,308	(1)%	\$5,202	\$4,979	4%
Operating Expenses	\$676	\$632	7%	\$2,529	\$2,396	6%
Operating Income	\$622	\$676	(8)%	\$2,673	\$2,583	3%
Operating Margin	48%	52%	(4 pts)	51%	52%	(1 pt)
Net Income attributable to ICE	\$448	\$611	(27)%	\$1,933	\$1,988	(3)%
Diluted EPS	\$0.80	\$1.07	(25)%	\$3.42	\$3.43	—

ICE SUMMARY BALANCE SHEET

in millions

BALANCE SHEET	12/31/2019	12/31/2018	CHANGE
Assets			
Unrestricted Cash	\$841	\$724	\$117
Other Current Assets	67,138	65,968	1,170
Current Assets	67,979	66,692	1,287
PPE (net)	1,536	1,241	295
Other Non-Current Assets	24,978	24,858	120
Total Assets	\$ 94,493	\$ 92,791	\$1,702
Liabilities & Equity			
Short-Term Debt	\$ 2,569	\$ 951	\$1,618
Other Current Liabilities	66,247	65,157	1,090
Long-Term Debt	5,250	6,490	(1,240)
Other Long-Term Liabilities	3,063	2,891	172
Total Liabilities	77,129	75,489	1,640
Redeemable Noncontrolling Int	78	71	7
Total Equity	17,286	17,231	55
Total Liabilities & Equity	\$ 94,493	\$ 92,791	\$1,702

- \$841M unrestricted cash
- Total debt of 7.8B; Adj. Debt-to-EBITDA⁽¹⁾ of 2.3x
- \$305M 2019 capex / software
- ROIC of 9%; WACC 6%

(1) Adjusted debt-to-EBITDA reflects the ratio of debt to adjusted EBITDA for the trailing twelve months. This reflects a non-GAAP measure. Please refer to slides in the appendix for reconciliation to the equivalent GAAP measure.

ADJUSTED NET INCOME FROM CONTINUING OPS AND EPS FROM CONTINUING OPS

	Three Months Ended 12/31/2019	Three Months Ended 12/31/2018	Twelve Months Ended 12/31/2019	Twelve Months Ended 12/31/2018
Net income attributable to ICE common stockholders	\$ 448	\$ 611	\$ 1,933	\$ 1,988
Add: Interactive Data transaction and integration costs and acquisition-related success fees	—	1	—	30
Add: Amortization of acquisition-related intangibles	75	78	309	287
Add: Impairment of CAT promissory notes	—	—	16	—
Add: Impairment of exchange registration intangible assets on ICE Futures Singapore	31	—	31	—
Less: Gain on acquisition of MERS	—	(110)	—	(110)
Add: Impairment of exchange registration intangible assets on closure of ICE Futures Canada and ICE Clear Canada	—	—	—	4
Add: Employee severance costs related to ICE Futures Canada and ICE Clear Canada operations	—	—	—	4
Add: Gain on divestiture of Trayport, net	—	—	—	1
Less: Income tax effect for the above items	(25)	(35)	(90)	(98)
Add/(Less): Tax adjustments from U.S. tax reform	—	1	—	(11)
Add/(Less): Deferred tax adjustments on acquisition-related intangibles	5	(10)	(8)	(5)
Add/(Less): Other tax adjustments	—	—	3	(13)
Adjusted net income attributable to ICE	<u>\$ 534</u>	<u>\$ 536</u>	<u>\$ 2,194</u>	<u>\$ 2,077</u>
Diluted earnings per share attributable to ICE	<u>\$ 0.80</u>	<u>\$ 1.07</u>	<u>\$ 3.42</u>	<u>\$ 3.43</u>
Adjusted diluted earnings per share attributable to ICE	<u>\$ 0.95</u>	<u>\$ 0.94</u>	<u>\$ 3.88</u>	<u>\$ 3.59</u>
Diluted weighted average common shares outstanding	<u>560</u>	<u>573</u>	<u>565</u>	<u>579</u>

ADJUSTED NET INCOME FROM CONTINUING OPS AND EPS FROM CONTINUING OPS

in millions except per share amounts	Twelve Months Ended 12/31/17	Twelve Months Ended 12/31/16	Twelve Months Ended 12/31/15	Twelve Months Ended 12/31/14	Twelve Months Ended 12/31/13
Net income attributable to ICE	\$2,526	\$1,429	\$1,274	\$981	\$254
Add: Interactive Data and NYSE transaction and integration costs and acquisition-related success fees	31	46	83	124	140
Add: Impairment on divestiture of NYSE Governance Services	6	—	—	—	—
Add: Accruals relating to investigations and inquiries	14	—	—	—	—
Add: Employee severance costs related to Creditex U.K. brokerage operations	—	4	—	—	—
Add: Creditex customer relationship intangible asset impairment	—	33	—	—	—
Add: Litigation settlements and accruals, net of insurance proceeds	—	—	15	—	—
Add: Amortization of acquisition-related intangibles	261	302	140	131	56
Less: Gain on divestiture of Trayport, net	(110)	—	—	—	—
Add / (Less): Cetip impairment loss / investment gain, net	(167)	—	—	—	190
Add: Duplicate rent expense and lease termination costs	—	—	—	—	7
Add: Early payoff of outstanding debt	—	—	—	—	51
Add: Pre-acquisition interest expense on debt issued for Interactive Data acquisition	—	—	5	—	—
Less: Income from OCC equity investment	—	—	—	(26)	—
Less: Net gain of sale of 6% remaining ownership in Euronext	—	—	—	(4)	—
Less: Income tax effect for the above items	(43)	(143)	(83)	(89)	(85)
Less: Deferred tax adjustment from U.S. tax rate reduction	(764)	—	—	—	—
Add / (Less): Deferred tax adjustment on acquisition-related intangibles	10	(22)	(82)	(14)	—
Add: Other tax adjustments	—	23	7	12	—
Add/(Less): Income (loss) from discontinued operations, net of tax	—	—	—	(11)	50
Adjusted net income attributable to ICE	\$1,764	\$1,672	\$1,359	\$1,104	\$663
Diluted EPS	\$ 4.25	\$ 2.39	\$ 2.28	\$ 1.69	\$ 0.77
Adjusted Diluted EPS	\$2.97	\$2.79	\$2.43	\$1.92	\$1.68
Diluted weighted average common shares outstanding	594	599	559	573	396

ADJUSTED OPERATING INCOME, OPERATING MARGIN & OPERATING EXPENSE RECONCILIATION

	Trading and Clearing Segment		Data and Listings Segment		Consolidated	
	Three Months Ended December 31,		Three Months Ended December 31,		Three Months Ended December 31,	
	2019	2018	2019	2018	2019	2018
Total revenues, less transaction-based expenses	\$626	\$657	\$672	\$651	\$1,298	\$1,308
Operating expenses	\$301	\$256	\$375	\$376	\$676	\$632
Less: Acquisition-related success fees	—	1	—	—	—	1
Less: Amortization of acquisition-related intangibles	24	23	51	55	75	78
Less: Impairment of exchange registration intangible assets on ICE Futures Singapore	31	—	—	—	31	—
Adjusted operating expenses	\$246	\$232	\$324	\$321	\$570	\$553
Operating income	\$325	\$401	\$297	\$275	\$622	\$676
Adjusted operating income	\$380	\$425	\$348	\$330	\$728	\$755
Operating margin	52%	61%	44%	42%	48%	52%
Adjusted operating margin	61%	65%	52%	51%	56%	58%

ADJUSTED OPERATING INCOME, OPERATING MARGIN & OPERATING EXPENSE RECONCILIATION

	Trading and Clearing Segment		Data and Listings Segment		Consolidated	
	Twelve Months Ended December 31,		Twelve Months Ended December 31,		Twelve Months Ended December 31,	
	2019	2018	2019	2018	2019	2018
Total revenues, less transaction-based expenses	\$2,542	\$2,420	\$2,660	\$2,559	\$5,202	\$4,979
Operating expenses	\$1,033	\$911	\$1,496	\$1,485	\$2,529	\$2,396
Less: Interactive Data transaction and integration costs and acquisition-related success fees	—	6	—	24	—	30
Less: Amortization of acquisition-related intangibles	94	73	215	214	309	287
Less: Impairment of exchange registration intangible assets on ICE Futures Singapore	31	—	—	—	31	—
Less: Impairment of exchange registration intangible assets on closure of ICE Futures Canada and ICE Clear Canada	—	4	—	—	—	4
Less: Employee severance costs related to ICE Futures Canada and ICE Clear Canada operations	—	4	—	—	—	4
Adjusted operating expenses	\$908	\$824	\$1,281	\$1,247	\$2,189	\$2,071
Operating income	\$1,509	\$1,509	\$1,164	\$1,074	\$2,673	\$2,583
Adjusted operating income	\$1,634	\$1,596	\$1,379	\$1,312	\$3,013	\$2,908
Operating margin	59%	62%	44%	42%	51%	52%
Adjusted operating margin	64%	66%	52%	51%	58%	58%

ADJUSTED EBITDA RECONCILIATION

in millions	Twelve Months Ended 12/31/19
Adjusted net income	\$2,194
Add: Interest expense	285
Add: Adjusted income tax expense ⁽¹⁾	616
Add: Adjusted depreciation and amortization ⁽¹⁾	322
Adjusted EBITDA from Continuing Ops	\$3,417
Adjusted EBITDA - Simplifile (pre acquisition)⁽²⁾	\$5
Combined Adjusted EBITDA	\$3,422
Debt, as reported	7,819
Adjusted Debt-to-EBITDA leverage ratio	2.3x

(1) Excludes adjustments already included in Non-GAAP financial measures

(2) Represents pro forma EBITDA for the preacquisition periods: Simplifile (1/1/19-6/11/19).

ADJUSTED EFFECTIVE TAX RATE RECONCILIATION

in millions	Three Months Ended 12/31/2019	Three Months Ended 12/31/2018	Twelve Months Ended 12/31/2019	Twelve Months Ended 12/31/2018
Income before income tax expense (benefit)	\$587	\$738	\$2,481	\$2,520
Less: Income tax expense (benefit)	134	119	521	500
Effective tax rate	23%	16%	21%	20%
Income before income tax expense (benefit)	\$587	\$738	\$2,481	\$2,520
Add: Interactive Data transaction and integration costs and acquisition-related success fees	—	1	—	30
Add: Amortization of acquisition-related intangibles	75	78	309	287
Add: Impairment of CAT promissory notes	—	—	16	—
Add: Impairment of exchange registration intangible assets on ICE Futures Singapore	31	—	31	—
Less: Gain on acquisition of MERS	—	(110)	—	(110)
Add: Impairment of exchange registration intangible assets on closure of ICE Futures Canada and ICE Clear Canada	—	—	—	4
Add: Employee severance costs related to ICE Futures Canada and ICE Clear Canada operations	—	—	—	4
Add: Gain on divestiture of Trayport, net	—	—	—	1
Adjusted Income before income taxes	\$693	\$707	\$2,837	\$2,736
Income tax expense	\$134	\$119	\$521	\$500
Add: Income tax effect for the above items	25	35	90	98
Add/(Less): Deferred tax adjustment on U.S. tax reform	—	(1)	—	11
Add/(Less): Deferred tax adjustments on acquisition related intangibles	(5)	10	8	5
Add/(Less): Other tax adjustments	—	—	(3)	13
Adjusted income tax expense	\$154	\$163	\$616	\$627
Adjusted effective tax rate	22%	23%	22%	23%

FREE CASH FLOW CALCULATION

in millions	Twelve Months Ended 12/31/2019	Twelve Months Ended 12/31/2018
Cash flow from operations	\$2,659	\$2,533
Less: Capital expenditures and capitalized software development costs	(305)	(280)
Add/(Less): Section 31 fees, net	(34)	33
Free cash flow	\$2,320	\$2,286