

# MSCI THIRD QUARTER 2018

Earnings Presentation

November 1, 2018

# FORWARD – LOOKING STATEMENTS

- This earnings presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including without limitation, our full-year 2018 guidance. These forward-looking statements relate to future events or to future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these statements. In some cases, you can identify forward-looking statements by the use of words such as “may,” “could,” “expect,” “intend,” “plan,” “seek,” “anticipate,” “believe,” “estimate,” “predict,” “potential” or “continue,” or the negative of these terms or other comparable terminology. You should not place undue reliance on forward-looking statements because they involve known and unknown risks, uncertainties and other factors that are, in some cases, beyond our control and that could materially affect our actual results, levels of activity, performance or achievements.
- Other factors that could materially affect actual results, levels of activity, performance or achievements can be found in MSCI’s Annual Report on Form 10-K for the fiscal year ended December 31, 2017 filed with the Securities and Exchange Commission (“SEC”) on February 26, 2018 and in quarterly reports on Form 10-Q and current reports on Form 8-K filed or furnished with the SEC (herein, referred to as “Public Filings”). If any of these risks or uncertainties materialize, or if our underlying assumptions prove to be incorrect, actual results may vary significantly from what MSCI projected. Any forward-looking statement in this earnings presentation reflects MSCI’s current views with respect to future events and is subject to these and other risks, uncertainties and assumptions relating to MSCI’s operations, results of operations, growth strategy and liquidity. MSCI assumes no obligation to publicly update or revise these forward-looking statements for any reason, whether as a result of new information, future events, or otherwise, except as required by law.

# OTHER INFORMATION

- Percentage changes and totals in this earnings presentation may not sum due to rounding.
- Percentage changes refer to the comparable period in 2017, unless otherwise noted.
- Gross sales include both recurring subscription and non-recurring sales as reported in Table 6: Sales and Retention Rate by Segment (unaudited) of the press release reporting MSCI's financial results for third quarter 2018.
- Foreign currency exchange rate fluctuations reflect the difference between the current period results as reported compared to the current period results recalculated using the foreign currency exchange rates in effect for the comparable prior period. While operating revenues adjusted for the impact of foreign currency fluctuations includes asset-based fees that have been adjusted for the impact of foreign currency fluctuations, the underlying AUM, which is the primary component of asset-based fees, is not adjusted for foreign currency fluctuations. Approximately two-thirds of the AUM are invested in securities denominated in currencies other than the U.S. dollar, and accordingly, any such impact is excluded from the disclosed foreign currency adjusted variances.

# Q3'18 – FINANCIAL RESULTS<sup>1</sup>

## Exceptional Revenue Growth

Revenue Growth  
(Subscription & Asset-Based Fees)

**+11%**

Subscription Run Rate Growth  
Reported / Organic

**+9% / +11%**

**Outstanding  
EPS Growth**

Adjusted EPS  
**+35%**

## Continued Operational Efficiency

Adj. EBITDA Margin (Change in bps) /  
Operating Margin (Change in bps)

**54.6% (+224 bps) /  
49.3% (+309 bps)**

Adj. EBITDA Growth / Operating  
Income Growth

**+16% / +19%**

Diluted EPS  
**+46%**

## Tax / Capital Optimization

Effective Tax Rate /  
(YoY Reduction)

**15.7%  
(1,384 bps)**

Share Repurchases (Q3 & Q4 QTD)

**\$165.2 million  
1,036.4k shares  
Avg. Price: \$159.40**

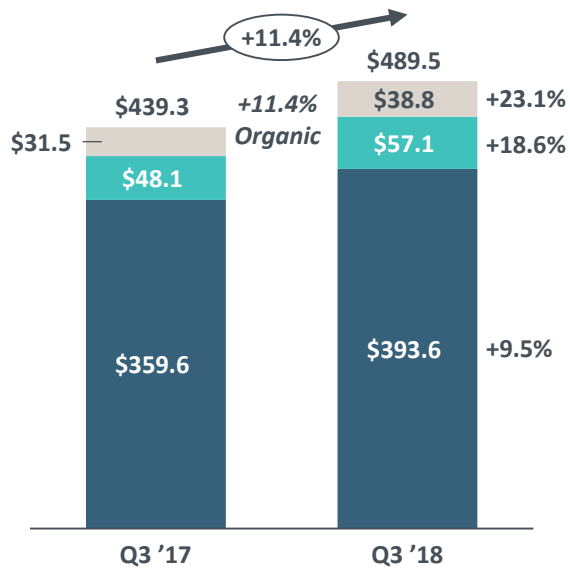
<sup>1</sup>Percentage and other changes refer to Q3 2017 unless otherwise noted.

# HIGH SUBSCRIPTION RUN RATE GROWTH

(US\$ in millions)

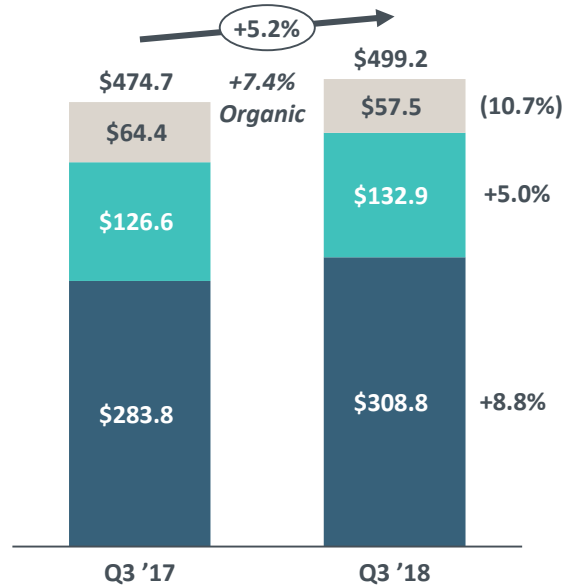
## Index

- Factor & ESG
- Custom & Specialized
- Market Cap Weighted



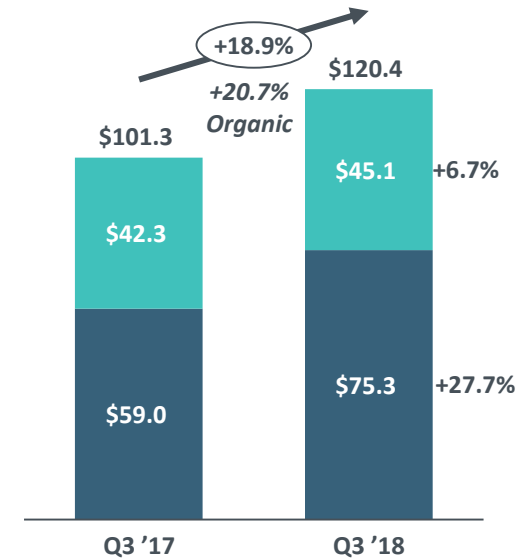
## Analytics

- Other
- Equity
- Multi-Asset Class



## All Other

- Real Estate
- ESG



Growth Supported By Macro Trends

Best In-Class Offerings Drive Higher Growth Rates

Benefiting From One MSCI Approach

# Q3'18 FINANCIAL SUMMARY

(US\$ in millions)

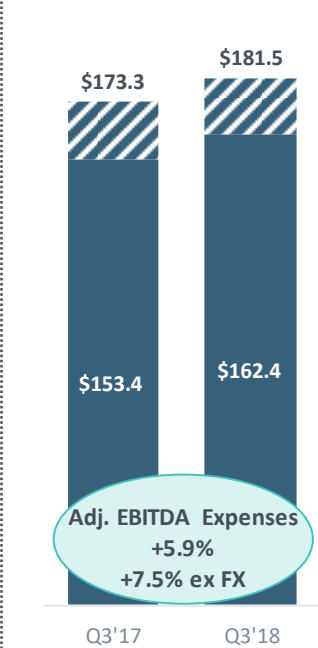
## Operating Revenue

+11.1%  
+11.2% ex FX



## Operating Expenses

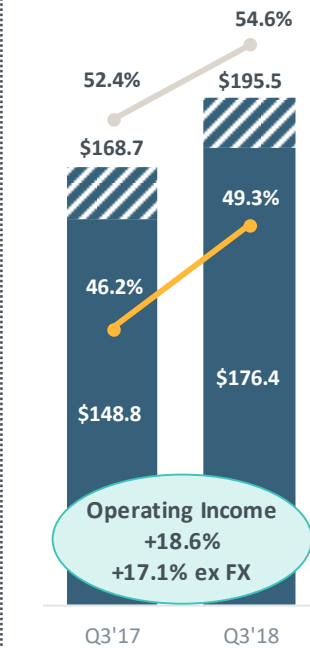
Operating Expenses  
+4.8%  
+6.2% ex FX



Adj. EBITDA Expenses  
+5.9%  
+7.5% ex FX

## Operating Income

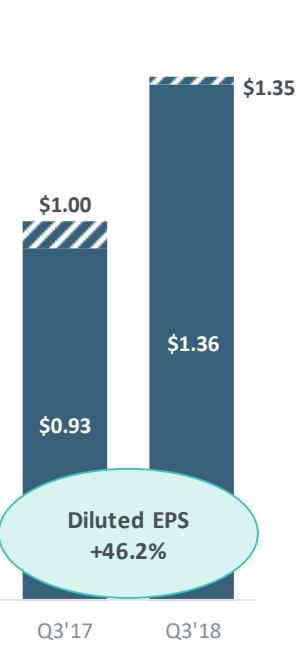
Adj. EBITDA  
+15.9%  
+14.6% ex FX



Operating Income  
+18.6%  
+17.1% ex FX

## Earnings Per Share

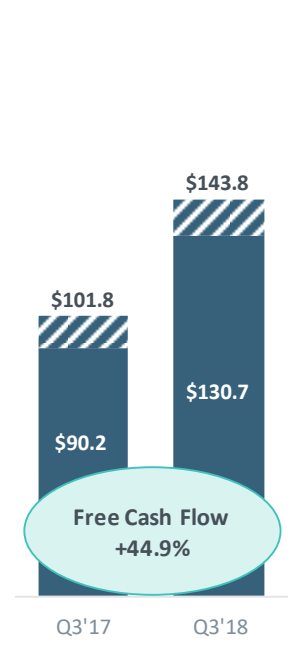
Adj. EPS  
+35.0%



Diluted EPS  
+46.2%

## Cash Generation

Cash from Operations  
+41.3%



Free Cash Flow  
+44.9%

■ = Subscription Revenue  
■ = Asset-Based Fees Revenue

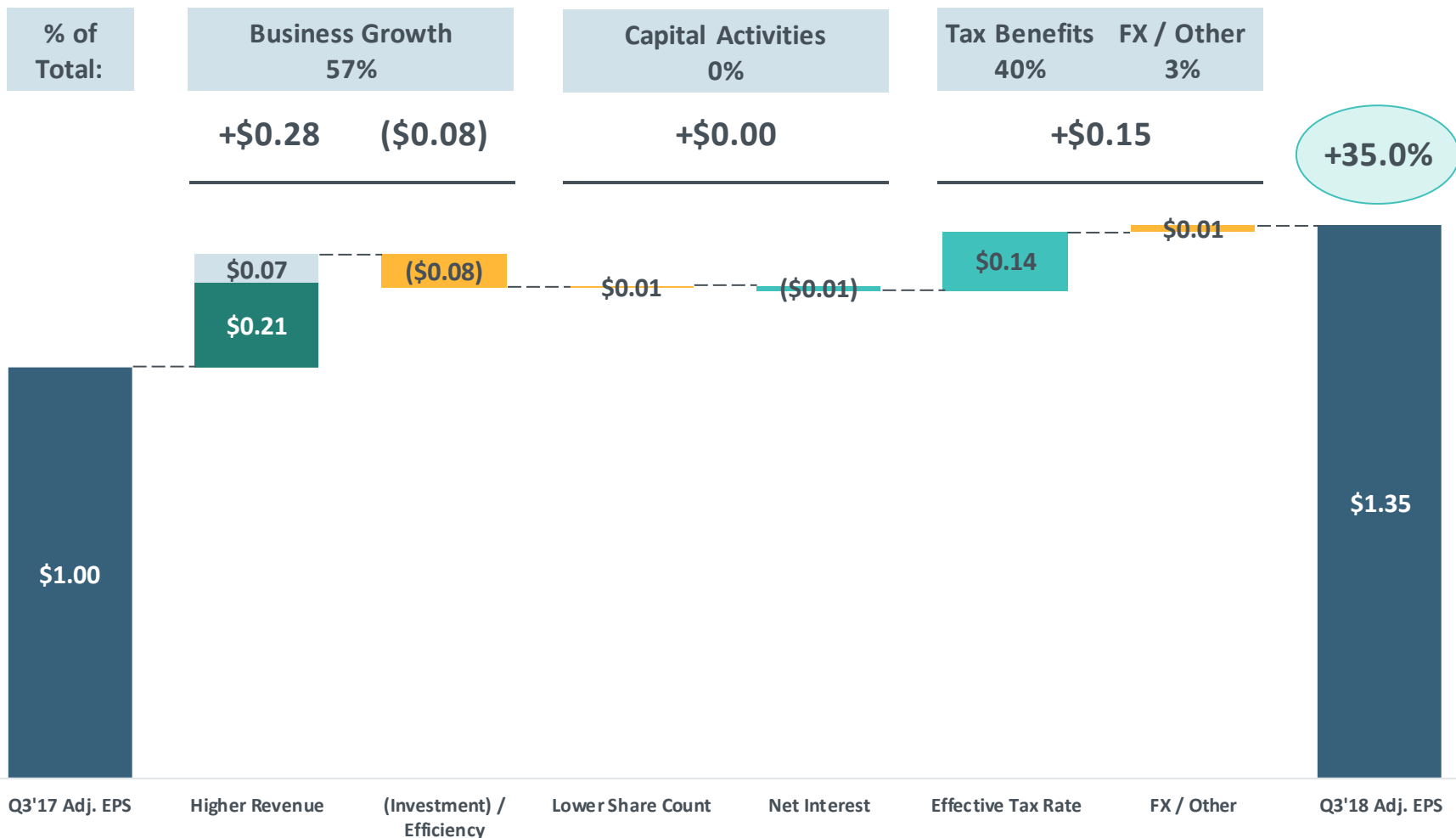
▨ = Depreciation and Amortization

▨ = Depreciation and Amortization  
● = Adj. EBITDA Margin  
● = Operating Margin

▨ = Reflects the per diluted share addback/reduction of the after-tax impact of the amortization of acquired intangible assets, the impact of divestitures, the impact of Tax Reform adjustments and, at times, certain other transactions or adjustments.

▨ = Capex

# ADJUSTED EPS GROWTH



■ Subscription Revenue   ■ Asset-Based Fees Revenue

# SEGMENT RESULTS

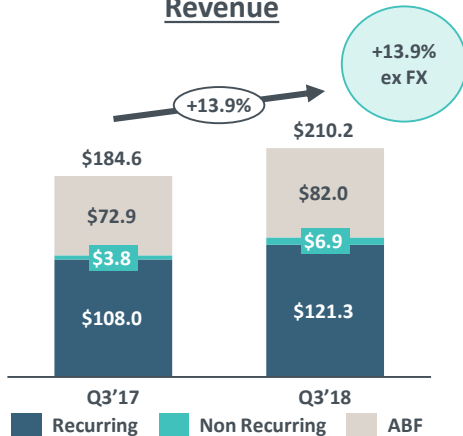


# Q3'18 SEGMENT RESULTS

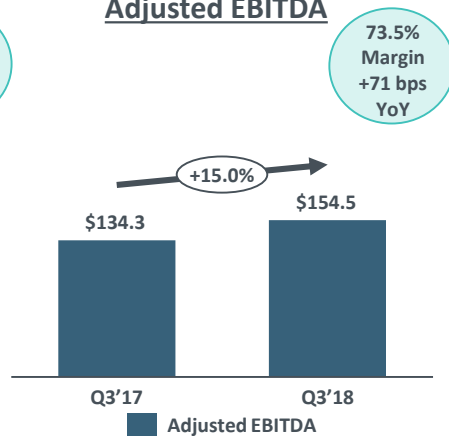
(US\$ in millions)

## Index

### Revenue

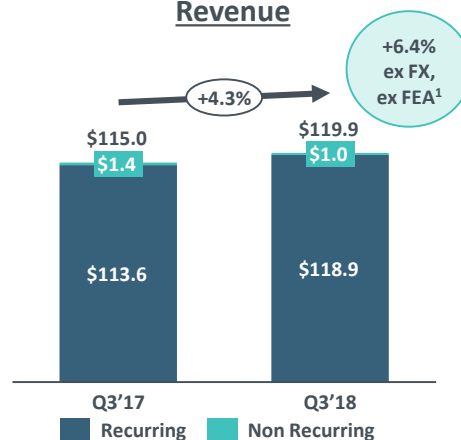


### Adjusted EBITDA

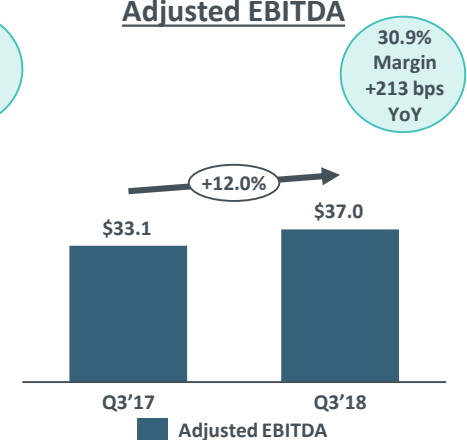


## Analytics

### Revenue

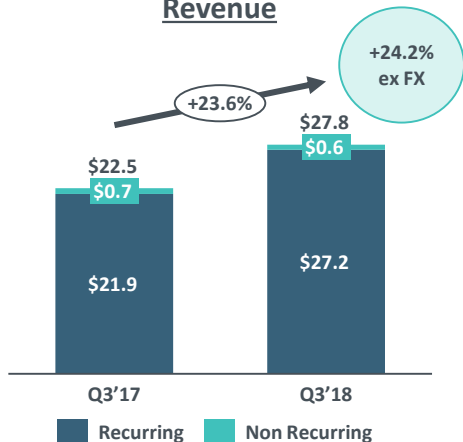


### Adjusted EBITDA

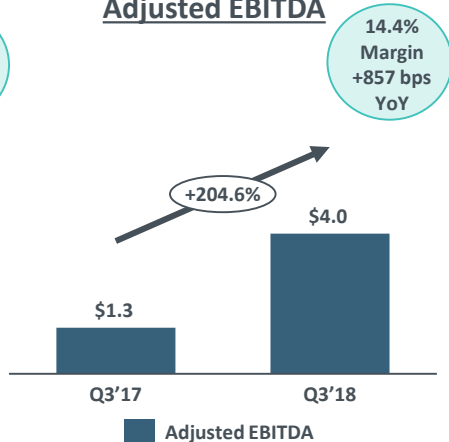


## All Other

### Revenue



### Adjusted EBITDA



## Q3 Drivers

- Strong recurring subscription revenue growth (+10%) across all segments driven by ongoing innovation and content creation
- YoY ABF revenue growth (+13%) driven by higher AUM
- Continued margin expansion driven by productivity and operating leverage

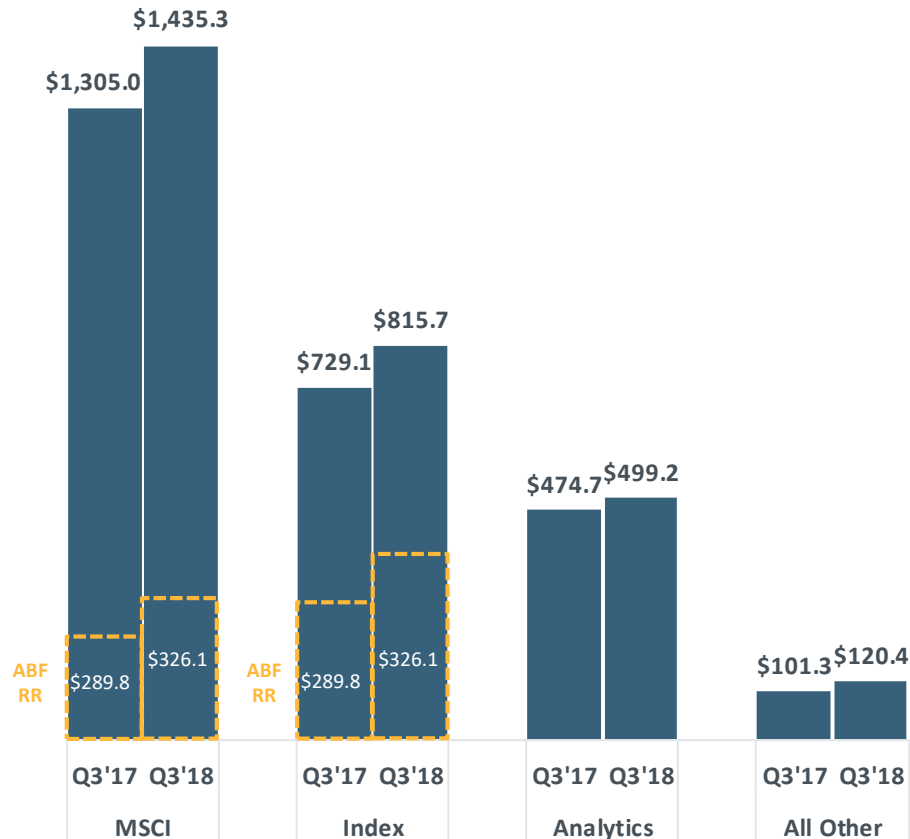
<sup>1</sup>ex FEA refers to excluding the impact of the divestiture of Financial Engineering Associates, Inc. ("FEA").

# CONTINUED OPERATING MOMENTUM

(US\$ in millions)

## YoY Run Rate Growth

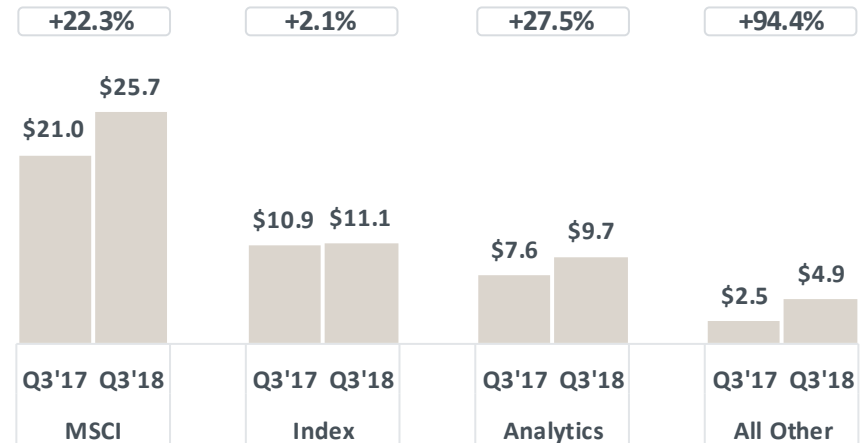
Total RR <sup>1</sup> (Reported)	+10.0%	+11.9%	+5.2%	+18.9%
Sub. RR <sup>1</sup> (organic)	+10.5%	+11.4%	+7.4%	+20.7%



## YoY Recurring Sales Growth



## YoY Recurring Net New Sales Growth



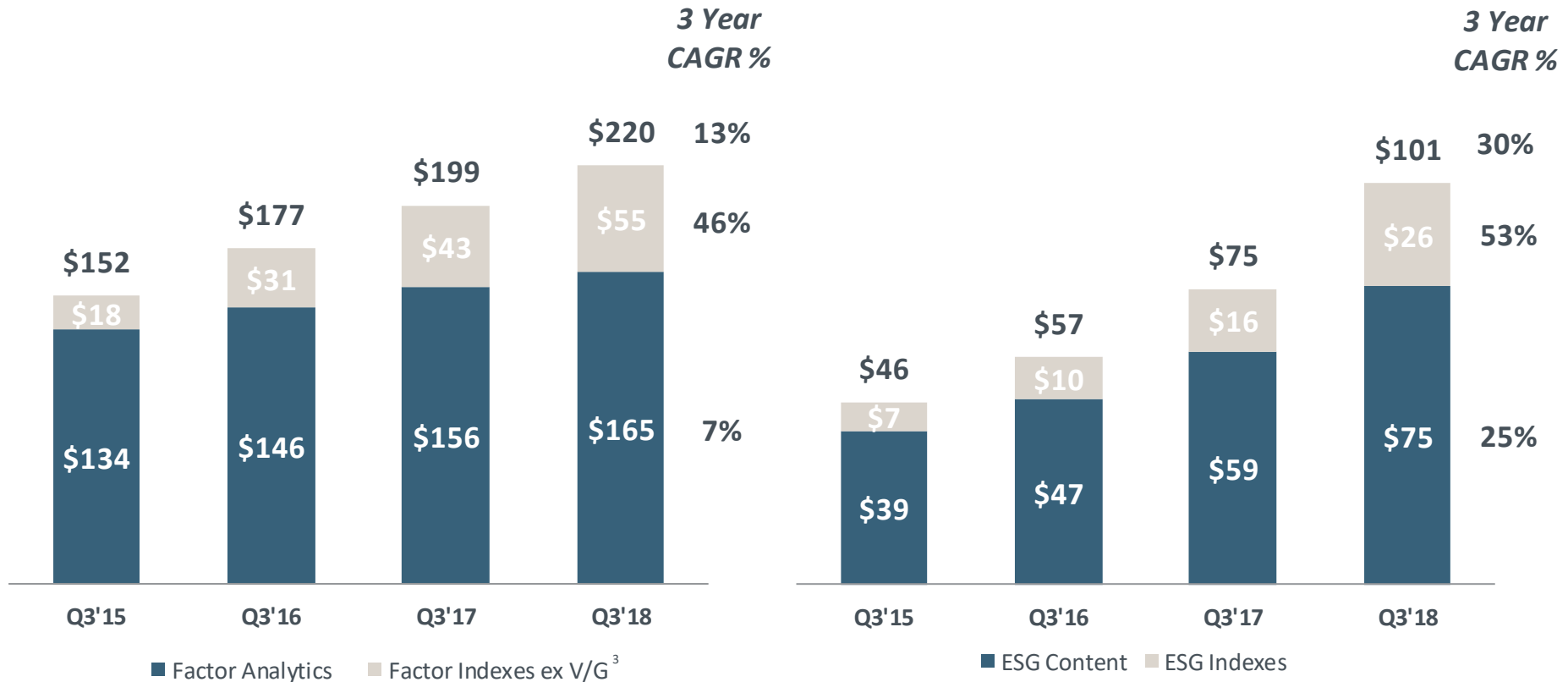
<sup>1</sup>Sub.: Subscription; RR: Run Rate.

# INTEGRATED FACTOR AND ESG RUN RATE TRENDS

(US\$ in millions)

## Factor Index and Analytics Run Rate Growth<sup>1</sup>

## ESG Content and ESG Index Run Rate Growth<sup>2</sup>



<sup>1</sup>Factor Index Run Rate includes Factor related Index subscription and asset-based fees Run Rate, and Factor Analytics Run Rate includes Factor module Run Rate in the Analytics segment.

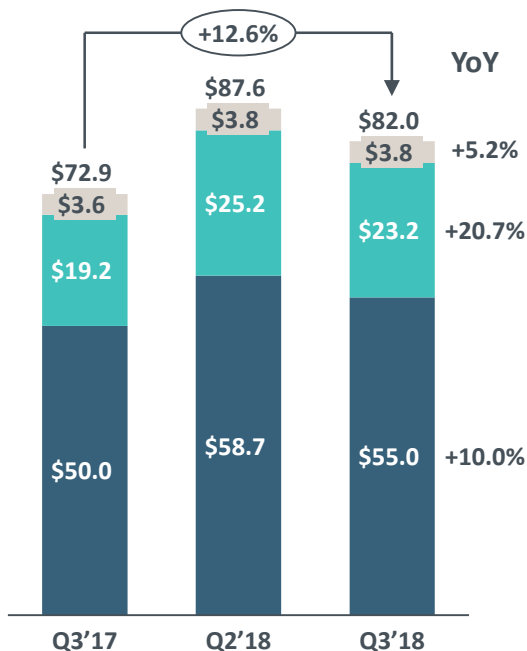
<sup>2</sup>ESG Content includes ESG segment Run Rate, and ESG Index includes ESG-related Index segment subscription Run Rate.

<sup>3</sup>V/G: Traditional value and growth product Run Rate for Indexes.

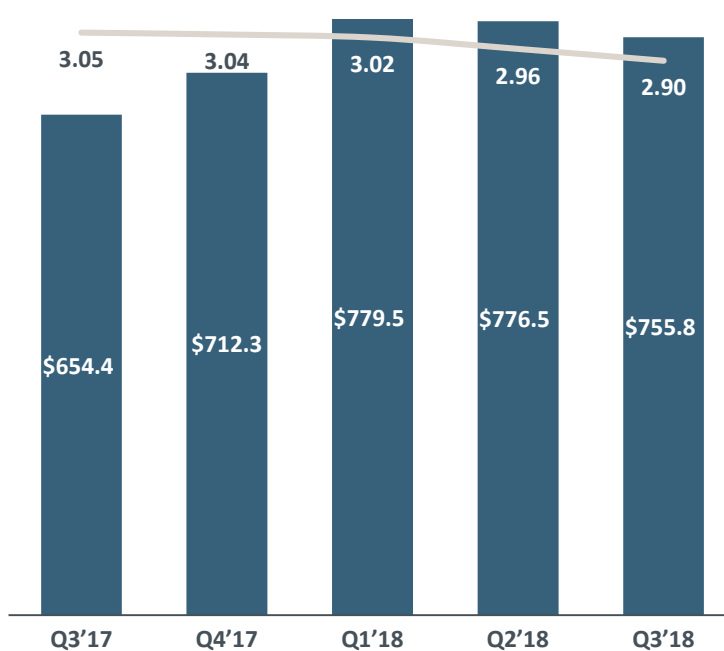
# INDEX SEGMENT – ASSET-BASED FEES DETAIL

(US\$ in millions, except AUM in billions and Average BPS)

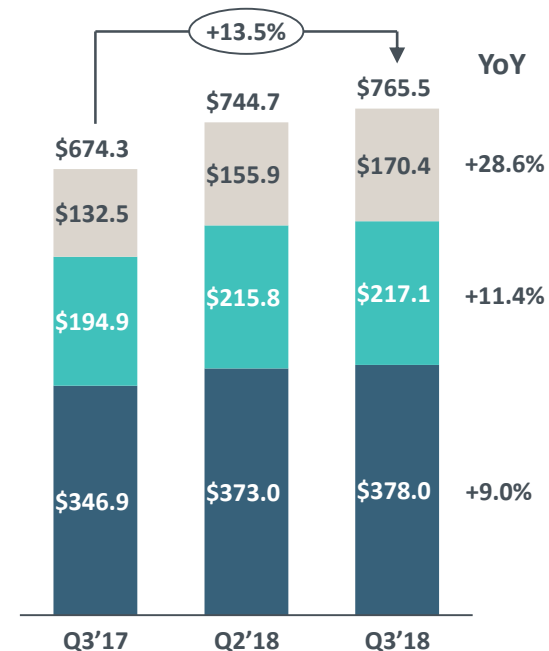
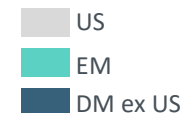
## ABF Revenue



## Quarterly Avg. AUM and Avg. BPS<sup>1</sup> of ETFs Linked to MSCI Indexes



## Quarter-End AUM by Market Exposure<sup>2</sup> of ETFs Linked to MSCI Indexes



<sup>1</sup>Average BPS based on Run Rate and period-end AUM in ETFs linked to MSCI Indexes.

<sup>2</sup>US = ETFs linked to MSCI indexes, the majority of whose weight is comprised of securities in MSCI Developed Market (DM) countries, primarily or exclusively in the US.

DM ex US = ETFs linked to MSCI indexes, the majority of whose weight is comprised of securities in MSCI DM countries other than the US.

EM = ETFs linked to MSCI indexes, the majority of whose weight is comprised of securities that are not in MSCI DM countries.

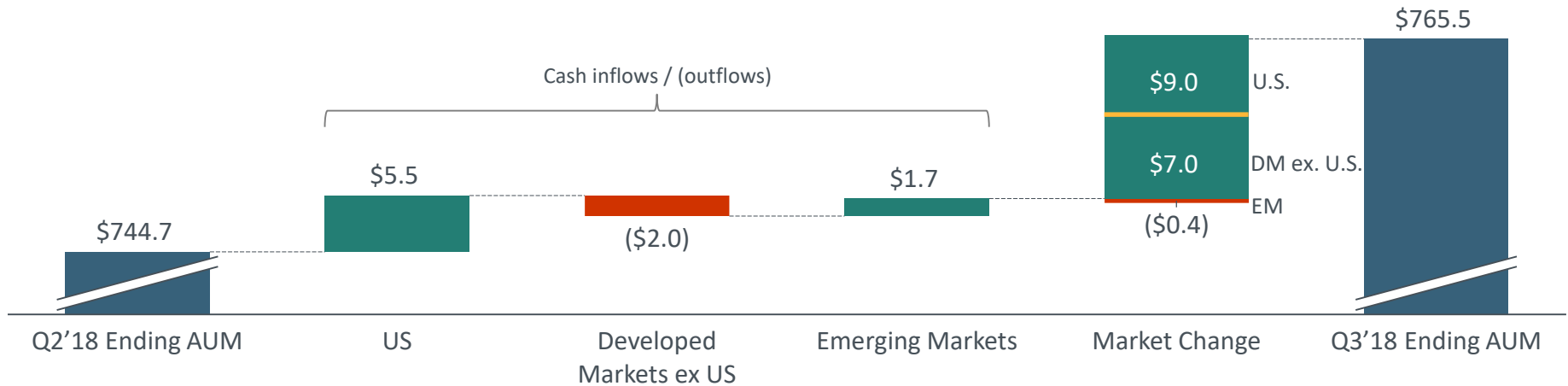
Prior periods have been reclassified to conform to the current period classification.

Note: The AUM in ETFs also include AUM in Exchange Traded Notes, the value of which is less than 1.0% of the AUM amounts presented.

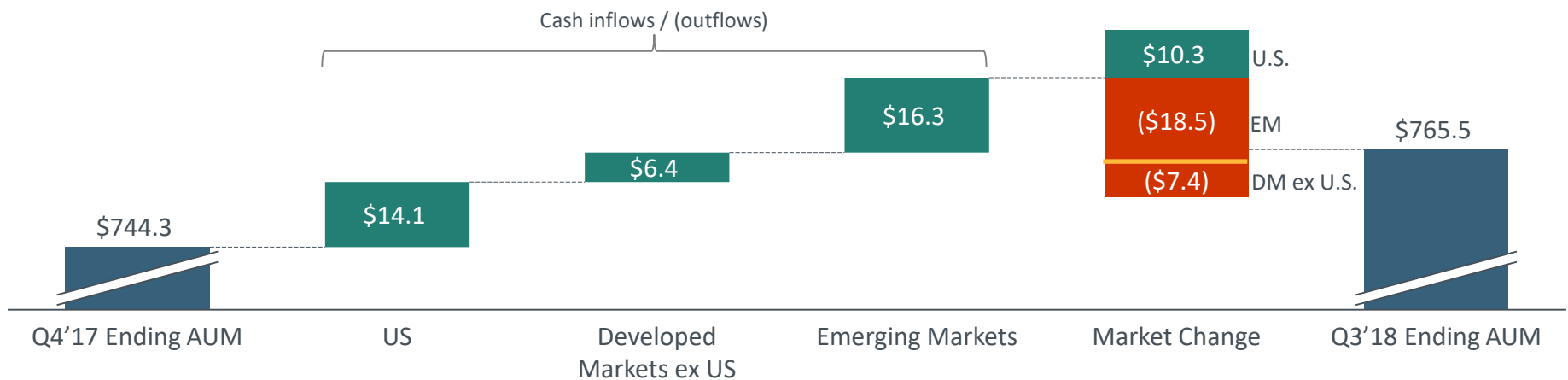
# Q3 & YTD'18 AUM DRIVERS: MSCI-LINKED EQUITY ETFs

(US\$ in billions)

## Q3'18 Sequential Change in AUM



## YTD Sep'18 Change in AUM



# CAPITAL, LIQUIDITY AND GUIDANCE

# CAPITAL AND LIQUIDITY

(US\$ in millions)

## Capital Position (As of 9/30/18)

<b>Total Cash</b>	<b>\$1,398</b>
<b>Total Debt<sup>1</sup></b>	<b>\$2,600</b>
<b>Net Debt<sup>1</sup></b>	<b>\$1,202</b>
<b>Total Debt / Adj. EBITDA</b>	<b>3.4x</b>
<b>Net Debt / Adj. EBITDA</b>	<b>1.6x</b>

## Continued Capital Discipline

### Return of Capital

- Repurchased \$388.4 million of shares at average price of \$151.06 as of October 31, 2018, year-to-date.
- \$1.3 billion remains under board authorization as of October 31, 2018.

### Excess Cash

- Strong balance sheet provides optionality
- Disciplined and consistent approach to deployment

<sup>1</sup>Excludes deferred financing fees of \$25.4 million as of September 30, 2018.

# FULL YEAR 2018 GUIDANCE

(US\$ in millions)

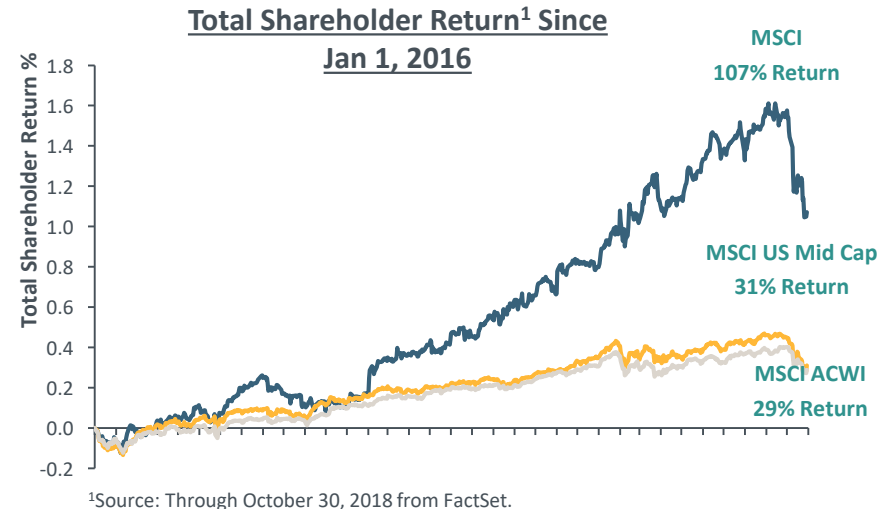
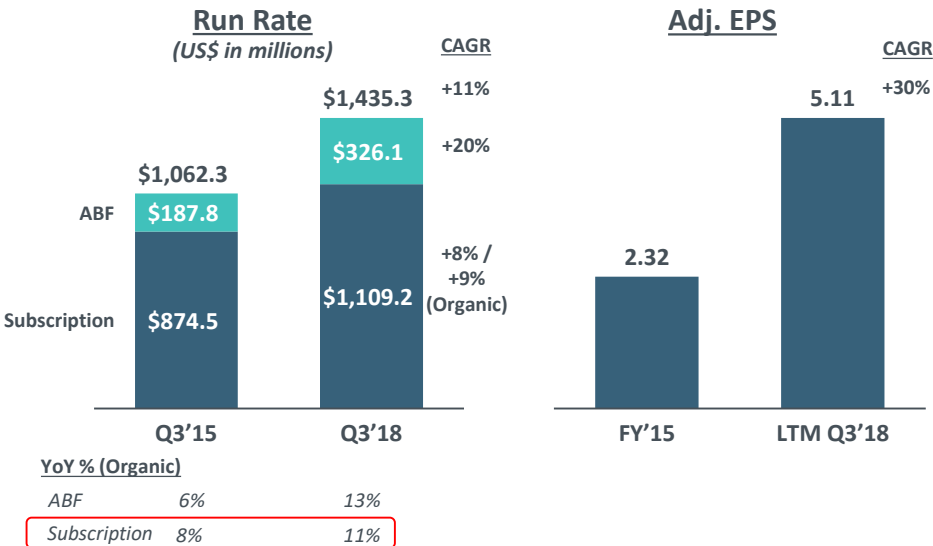
	Prior Guidance	Current Guidance
Operating Expenses	\$725 - \$750	\$743 - \$750
Adjusted EBITDA Expenses	\$645 - \$665	\$658 - \$665
Interest Expense	\$133	\$133
Effective Tax Rate	21.0% - 24.0%	19.0% - 21.0%
Net Cash Provided by Operating Activities	\$490 - \$540	\$520 - \$550
Capex	(\$50 - \$40)	(\$50 - \$40)
Free Cash Flow	\$440 - \$500	\$470 - \$510



# EXCEPTIONAL SHAREHOLDER VALUE CREATION

Accelerating Growth Rates and Expanding Profits

~\$6B of Value Creation since 2016



## Alignment of Executive Long Term Incentive Plan with Total Shareholder Returns

### Plan Objective:

- Focus management on execution of strategic plan and alignment with shareholder value creation

### Multi-Year PSUs Granted in 2016:

- Long-term equity incentive plan based on TSR and designed to drive transformation of company; covers 2016 through 2018<sup>1</sup>

### 2019:

- Awards vest in Q1
- Expense accrued over vesting period (except for tax impact)
- Net tax impact will be excluded from Adjusted EBITDA and EPS in Q1'19<sup>2</sup>

<sup>1</sup>Executives who received multi-year PSU awards in 2016 did not receive PSUs in 2017 and 2018. In addition, our CEO did not receive any RSUs in 2016, 2017 and 2018.

<sup>2</sup>Assumes an actual payout significantly above 100%.

# MARKET OUTLOOK AND TRENDS

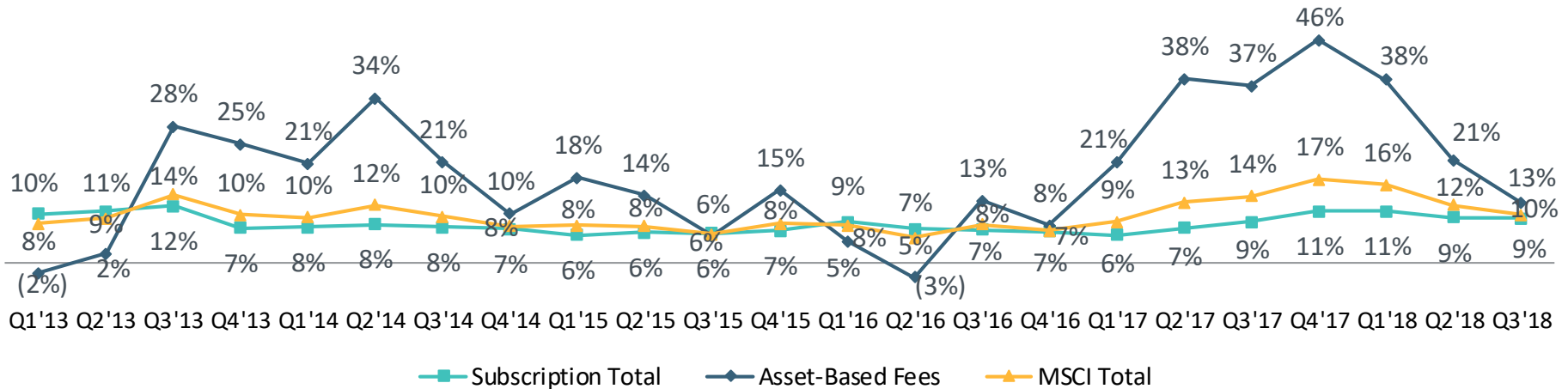
	<i>Revenue Source</i>	<i>Q3'18 Run Rate</i>	<i>% of Total</i>	<i>Q3'18 YoY Growth %</i>	<i>Market Trends</i>	<i>MSCI Focus Areas</i>
<i>Subscription</i>	<b>Subscription</b>	<b>\$1.1B</b>	<b>77%</b>	<b>+9.3% (+10.5% Organic)</b>	<ul style="list-style-type: none"> <li>• Global Investing</li> <li>• ESG Integration</li> <li>• Private Asset Growth</li> <li>• Market Factor-Based / Outcome-Oriented Investing</li> <li>• Operational Efficiency and System Outsourcing</li> <li>• Index-Based Investing:                             <ul style="list-style-type: none"> <li>• Increasing demand for index based products</li> <li>• Bps compression in Equity ETFs</li> <li>• Recent slowdown in flows</li> <li>• Shift in flows towards U.S.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Consistent Strategy and Execution</li> <li>• Solutions<sup>1</sup>-Focused Approach</li> <li>• Research Thought Leadership</li> <li>• Accelerating Content Innovation</li> <li>• New Platform and Technology</li> <li>• Diverse Licensing Strategy to Capture Volume Growth in ABF</li> <li>• Coverage Investment / Commercial Excellence</li> </ul>
	<b>ETF</b>	<b>\$223M</b>	<b>16%</b>	<b>+8.1%</b>		
<b>Non-ETF, Futures &amp; Options</b>	<b>\$103M</b>	<b>7%</b>	<b>+23.4%</b>			
<i>ABF</i>	<b>Adj. EBITDA Exp.</b>	<b>\$658M to \$665M</b> <i>(2018 Guidance)</i>		<ul style="list-style-type: none"> <li>• Continued investment in high return organic initiatives to drive growth</li> <li>• Disciplined and opportunistic approach to repurchases</li> <li>• Continued evaluation of core capabilities to enhance growth strategy</li> </ul>		
	<b>Share Repurchases</b>	<b>YTD: \$388M, 2,572K shares</b>				
	<b>Acquisition / Divestiture</b>	<b>FEA / Investorforce</b> <i>(2018-Divestitures)</i>				
<i>Capital Allocation</i>						

<sup>1</sup>Solutions refers to the usage of our products and / or services by our clients to help them achieve their specific investment objectives.

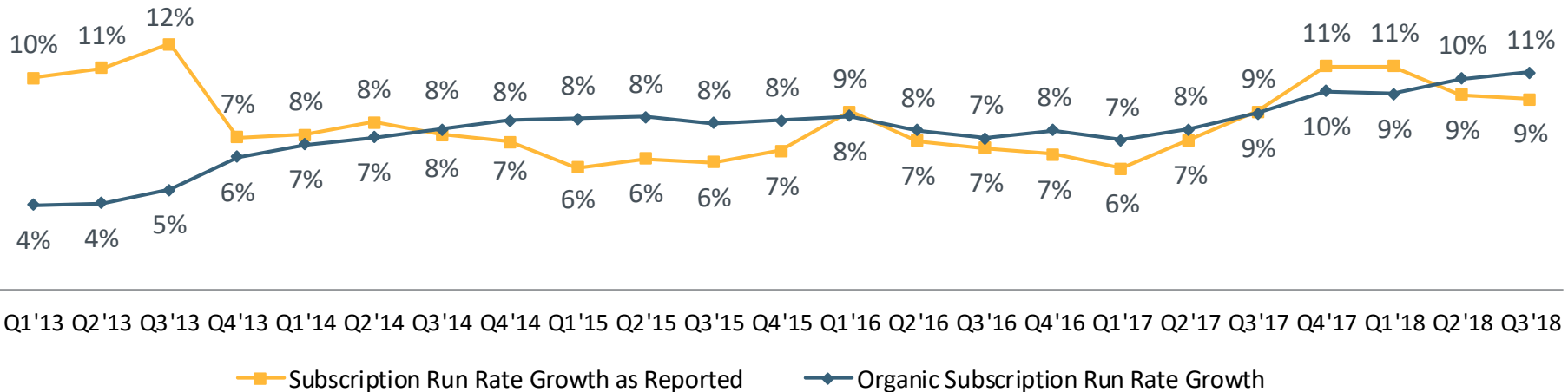
# APPENDIX

# Q1'13 – Q3'18 YoY RUN RATE GROWTH TREND

## YoY Run Rate Growth as Reported

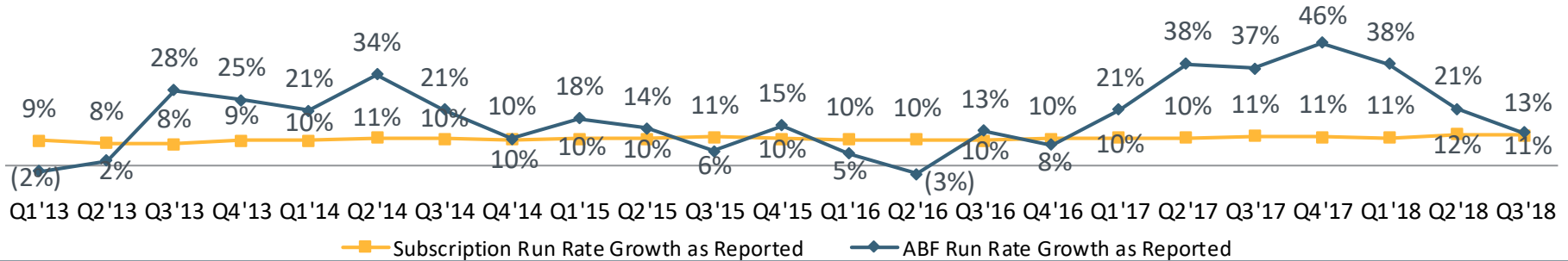


## YoY Subscription Run Rate Growth as Reported vs. Organic Growth

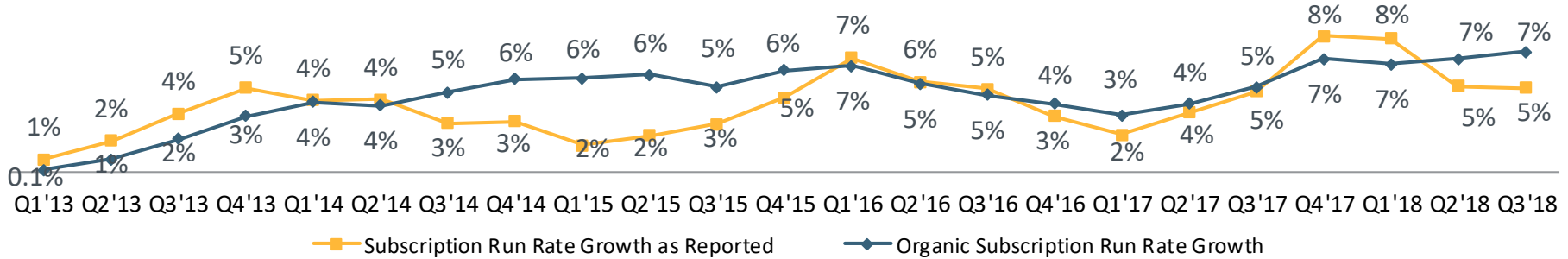


# Q1'13 – Q3'18 YoY SEGMENT RUN RATE GROWTH TREND

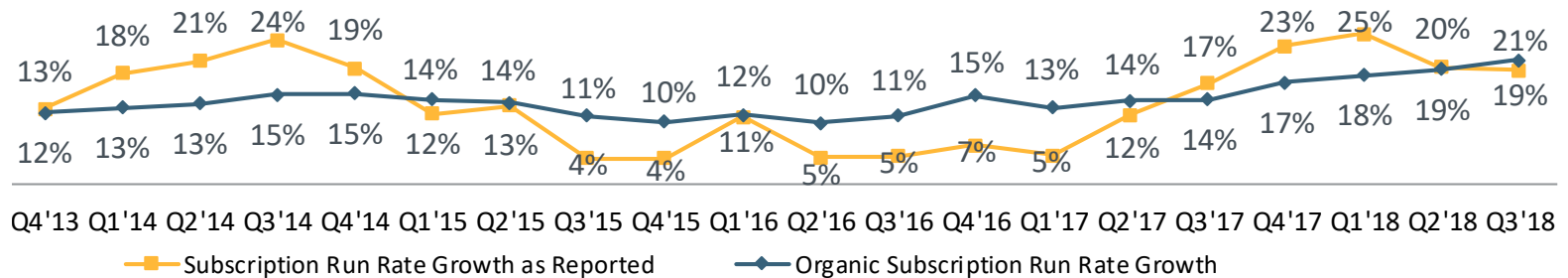
## Index



## Analytics



## All Other



# RECONCILIATION OF ADJUSTED EBITDA TO NET INCOME

In thousands	Three Months Ended			Nine Months Ended	
	Sep. 30, 2018	Sep. 30, 2017 <sup>(1)</sup>	June 30, 2018	Sep. 30, 2018	Sep. 30, 2017 <sup>(1)</sup>
Index adjusted EBITDA	\$ 154,477	\$ 134,342	\$ 157,516	\$ 457,923	\$ 379,538
Analytics adjusted EBITDA	37,046	33,078	36,327	106,966	94,483
All Other adjusted EBITDA	4,014	1,318	6,582	17,782	11,919
<b>Consolidated adjusted EBITDA</b>	<b>195,537</b>	<b>168,738</b>	<b>200,425</b>	<b>582,671</b>	<b>485,940</b>
Amortization of intangible assets	11,681	10,614	19,537	42,556	32,987
Depreciation and amortization of property, equipment and leasehold improvements	7,453	9,325	7,377	23,035	27,322
<b>Operating income</b>	<b>176,403</b>	<b>148,799</b>	<b>173,511</b>	<b>517,080</b>	<b>425,631</b>
Other expense (income), net	29,557	27,996	17,188	74,473	85,692
Provision for income taxes	23,014	35,650	39,494	86,854	100,569
<b>Net income</b>	<b>\$ 123,832</b>	<b>\$ 85,153</b>	<b>\$ 116,829</b>	<b>\$ 355,753</b>	<b>\$ 239,370</b>

<sup>1</sup>As a result of the adoption of recent accounting guidance, the Company has restated its adjusted EBITDA by excluding \$0.1 million and \$0.4 million of non-service related pension costs from adjusted EBITDA expenses for the three and nine months ended Sep. 30, 2017, respectively.

# RECONCILIATION OF ADJUSTED NET INCOME AND ADJUSTED EPS TO NET INCOME AND EPS

In thousands, except per share data	Three Months Ended			Nine Months Ended	
	Sep. 30, 2018	Sep. 30, 2017	June 30, 2018	Sep. 30, 2018	Sep. 30, 2017
Net income	\$ 123,832	\$ 85,153	\$ 116,829	\$ 355,753	\$ 239,370
Plus: Amortization of acquired intangible assets	8,999	9,270	17,029	35,235	29,919
Less: Gain on divestiture	(10)	—	(10,636)	(10,646)	(771)
Less: Tax item related to pending transaction(1)	(7,758)	—	—	(7,758)	—
Less: Tax Reform adjustments	—	—	—	(1,601)	—
Less: Income tax effect	(1,884)	(2,732)	(4,121)	(7,613)	(8,850)
<b>Adjusted net income</b>	<b>\$ 123,179</b>	<b>\$ 91,691</b>	<b>\$ 119,101</b>	<b>\$ 363,370</b>	<b>\$ 259,668</b>
Diluted EPS	\$ 1.36	\$ 0.93	\$ 1.28	\$ 3.87	\$ 2.61
Plus: Amortization of acquired intangible assets	0.10	0.10	0.19	0.38	0.33
Less: Gain on divestiture	—	—	(0.12)	(0.12)	(0.01)
Less: Tax item related to pending transaction(1)	(0.08)	—	—	(0.08)	—
Less: Tax Reform adjustments	—	—	—	(0.02)	—
Less: Income tax effect	(0.03)	(0.03)	(0.05)	(0.07)	(0.10)
<b>Adjusted EPS</b>	<b>\$ 1.35</b>	<b>\$ 1.00</b>	<b>\$ 1.30</b>	<b>\$ 3.96</b>	<b>\$ 2.83</b>

<sup>1</sup>Reflects the release of a valuation allowance on capital loss carryforwards that was recognized in third quarter 2018 due to the execution of the agreement to sell InvestorForce in July 2018.

# RECONCILIATION OF ADJUSTED EBITDA EXPENSES TO OPERATING EXPENSES

In thousands	Three Months Ended			Nine Months Ended		Full-Year
	Sep. 30, 2018	Sep. 30, 2017(1)	June 30, 2018	Sep. 30, 2018	Sep. 30, 2017(1)	2018 Outlook(2)
Index adjusted EBITDA expenses	\$ 55,717	\$ 50,252	\$ 55,418	\$ 167,119	\$ 145,647	
Analytics adjusted EBITDA expenses	82,852	81,894	82,792	251,038	246,276	
All Other adjusted EBITDA expenses	23,828	21,213	24,411	71,468	61,530	
<b>Consolidated adjusted EBITDA expenses</b>	<b>162,397</b>	<b>153,359</b>	<b>162,621</b>	<b>489,625</b>	<b>453,453</b>	<b>\$658,000 - \$665,000</b>
Amortization of intangible assets	11,681	10,614	19,537	42,556	32,987	
Depreciation and amortization of property, equipment and leasehold improvements	7,453	9,325	7,377	23,035	27,322	85,000
<b>Total operating expenses</b>	<b>\$ 181,531</b>	<b>\$ 173,298</b>	<b>\$ 189,535</b>	<b>\$ 555,216</b>	<b>\$ 513,762</b>	<b>\$743,000 - \$750,000</b>

<sup>1</sup>As a result of the adoption of recent accounting guidance, the Company has restated its adjusted EBITDA by excluding \$0.1 million and \$0.4 million of non-service related pension costs from adjusted EBITDA expenses for the three and nine months ended September 30, 2017, respectively.

<sup>2</sup>We have not provided a line-item reconciliation for adjusted EBITDA expenses to total operating expenses for this future period because we do not provide guidance on the individual reconciling items between total operating expenses and adjusted EBITDA expenses.



# RECONCILIATION OF FREE CASH FLOW TO NET CASH PROVIDED BY OPERATING ACTIVITIES

In thousands	Three Months Ended			Nine Months Ended		Full-Year
	Sep. 30, 2018	Sep. 30, 2017	June 30, 2018	Sep. 30, 2018	Sep. 30, 2017	2018 Outlook(1)
Net cash provided by operating activities	\$ 143,825	\$ 101,773	\$ 207,165	\$ 439,587	\$ 261,005	\$520,000 - \$550,000
Capital expenditures	(8,590)	(6,390)	(2,967)	(13,069)	(17,440)	
Capitalized software development costs	(4,517)	(5,164)	(4,238)	(13,115)	(10,777)	
Capex	(13,107)	(11,554)	(7,205)	(26,184)	(28,217)	(50,000 - 40,000)
<b>Free cash flow</b>	<b>\$ 130,718</b>	<b>\$ 90,219</b>	<b>\$ 199,960</b>	<b>\$ 413,403</b>	<b>\$ 232,788</b>	<b>\$470,000 - \$510,000</b>

<sup>1</sup>We have not provided a line-item reconciliation for free cash flow to net cash from operating activities for this future period because we do not provide guidance on the individual reconciling items between net cash from operating activities and free cash flow.

# RECONCILIATION OF EFFECTIVE TAX RATE TO ADJUSTED TAX RATE

	Three Months Ended			Nine Months Ended	
	Sep. 30, 2018	Sep. 30, 2017	June 30, 2018	Sep. 30, 2018	Sep. 30, 2017
Effective tax rate	15.67%	29.51%	25.26%	19.62%	29.58%
Tax Reform impact on effective tax rate	—%	—%	—%	0.36%	—%
Adjusted tax rate	15.67%	29.51%	25.26%	19.98%	29.58%

# USE OF NON-GAAP FINANCIAL MEASURES

- MSCI has presented supplemental non-GAAP financial measures as part of this earnings presentation. Reconciliations are provided in slides 22-26 above that reconcile each non-GAAP financial measure with the most comparable GAAP measure. The non-GAAP financial measures presented in this earnings presentation should not be considered as alternative measures for the most directly comparable GAAP financial measures. The non-GAAP financial measures presented in this earnings presentation are used by management to monitor the financial performance of the business, inform business decision-making and forecast future results.
- “Adjusted EBITDA” is defined as net income before (1) provision for income taxes, (2) other expense (income), net, (3) depreciation and amortization of property, equipment and leasehold improvements, (4) amortization of intangible assets and, at times, (5) certain other transactions or adjustments.
- “Adjusted EBITDA expenses” is defined as operating expenses less depreciation and amortization of property, equipment and leasehold improvements and amortization of intangible assets and, at times, certain other transactions or adjustments.
- “Adjusted net income” and “adjusted EPS” are defined as net income and diluted EPS, respectively, before the after-tax impact of the amortization of acquired intangible assets, the impact of divestitures, the impact of Tax Reform adjustments and, at times, certain other transactions or adjustments.
- “Adjusted tax rate” is defined as the effective tax rate excluding the impact of Tax Reform.
- “Capex” is defined as capital expenditures plus capitalized software development costs.
- “Free cash flow” is defined as net cash provided by operating activities, less Capex.
- We believe adjusted EBITDA and adjusted EBITDA expenses are meaningful measures of the operating performance of MSCI because they adjust for significant one-time, unusual or non-recurring items as well as eliminate the accounting effects of capital spending and acquisitions that do not directly affect what management considers to be our core operating performance in the period.
- We believe adjusted net income and adjusted EPS are meaningful measures of the performance of MSCI because they adjust for the after-tax impact of significant one-time, unusual or non-recurring items as well as eliminate the accounting effects of acquisitions that do not directly affect what management considers to be our core performance in the period.
- We believe that free cash flow is useful to investors because it relates the operating cash flow of MSCI to the capital that is spent to continue and improve business operations, such as investment in MSCI’s existing products. Further, free cash flow indicates our ability to strengthen MSCI’s balance sheet, repay our debt obligations, pay cash dividends and repurchase shares of our common stock.
- We believe that adjusted tax rate is useful to investors because it increases the comparability of period-to-period results by adjusting for the estimated net impact of Tax Reform.
- We believe that the non-GAAP financial measures presented in this earnings presentation facilitate meaningful period-to-period comparisons and provide a baseline for the evaluation of future results.
- Adjusted EBITDA expenses, adjusted EBITDA, adjusted net income, adjusted EPS, adjusted tax rate, Capex and free cash flow are not defined in the same manner by all companies and may not be comparable to similarly-titled non-GAAP financial measures of other companies.

# USE OF OPERATING METRICS

- MSCI has presented supplemental key operating metrics as part of this earnings presentation, including Run Rate, subscription sales and cancellations, non-recurring sales and Retention Rate.
- Retention Rate for a period is calculated by annualizing the cancellations for which we have received a notice of termination or for which we believe there is an intention not to renew during the period, and we believe that such notice or intention evidences the client's final decision to terminate or not renew the applicable agreement, even though such notice is not effective until a later date. This annualized cancellation figure is then divided by the subscription Run Rate at the beginning of the year to calculate a cancellation rate. This cancellation rate is then subtracted from 100% to derive the annualized Retention Rate for the period. Retention Rate is computed by segment on a product/service-by-product/service basis. In general, if a client reduces the number of products or services to which it subscribes within a segment, or switches between products or services within a segment, we treat it as a cancellation for reporting purposes, except in the case of a product or service switch that management considers to be a replacement product or service. In those replacement cases, only the net change to the client subscription, if a decrease, is reported as a cancel. In the Analytics and the ESG segments, substantially all product or service switches are treated as replacement products or services and netted in this manner, while in our Index and Real Estate segments, product or service switches that are treated as replacement products or services and receive netting treatment occur only in certain limited instances. In addition, we treat any reduction in fees resulting from a down-sale of the same product or service as a cancellation to the extent of the reduction. This definition of Retention Rate was revised and was previously provided beginning with our earnings release, dated August 2, 2018, to describe our methodology for calculating cancellations. We believe this methodology has been applied in all material respects in calculating cancellation rates reported in the prior periods covered in our Form 10-K for the year ended December 31, 2017 and in our Form 10-Q for the quarter ended March 31, 2018 and quarter ended June 30, 2018, and accordingly, we do not believe changes to those previously reported cancellation rates are required. Beginning in second quarter 2018, "Aggregate Retention Rate" is referred to as "Retention Rate."
- Run Rate estimates at a particular point in time the annualized value of the recurring revenues under our client license agreements ("Client Contracts") for the next 12 months, assuming all Client Contracts that come up for renewal are renewed and assuming then-current currency exchange rates, subject to the adjustments and exclusions described elsewhere in our Public Filings. For any Client Contract where fees are linked to an investment product's assets or trading volume/fees, the Run Rate calculation reflects, for ETFs, the market value on the last trading day of the period, for futures and options, the most recent quarterly volumes, and/or reported exchange fees, and for other non-ETF products, the most recent client reported assets. Run Rate does not include fees associated with "one-time" and other non-recurring transactions. In addition, we add to Run Rate the annualized fee value of recurring new sales, whether to existing or new clients, when we execute Client Contracts, even though the license start date, and associated revenue recognition, may not be effective until a later date. We remove from Run Rate the annualized fee value associated with products or services under any Client Contract with respect to which we have received a notice of termination or non-renewal during the period and have determined that such notice evidences the client's final decision to terminate or not renew the applicable products or services, even though such notice is not effective until a later date.
- "Organic subscription Run Rate growth" is defined as the period over period Run Rate growth, excluding the impact of changes in foreign currency and the first year impact of any acquisitions. It is also adjusted for divestitures. Changes in foreign currency are calculated by applying the currency exchange rate from the comparable prior period to current period foreign currency denominated Run Rate.

**MSCI**

