

McGraw-Hill

Q3-2019 Investor Update

November 19, 2019



Important Notice

Forward-Looking Statements

This presentation includes statements that are, or may be deemed to be, “forward-looking statements.” These forward-looking statements can be identified by the use of forward-looking terminology, including the terms “believes,” “estimates,” “anticipates,” “expects,” “intends,” “plans,” “may,” “will” or “should” or, in each case, their negative or other variations or comparable terminology. These forward-looking statements include all matters that are not historical facts. They appear in a number of places throughout this presentation and include statements regarding our intentions, beliefs or current expectations concerning, among other things, our results of operations, financial condition, liquidity, prospects, growth, strategies and the industry in which we operate.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. We caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the developments in the industry in which we operate, may differ materially from those made in or suggested by the forward-looking statements contained in this presentation. In addition, even if our results of operations, financial condition and liquidity, and the developments in the industry in which we operate are consistent with the forward-looking statements contained in this presentation, those results of operations, financial condition and liquidity or developments may not be indicative of results or developments in subsequent periods.

Any forward-looking statements we make in this presentation speak only as of the date of such statement, and we undertake no obligation to update such statements. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless expressed as such, and should only be viewed as historical data.

Non-GAAP Financial Measures

Certain financial information included herein, including Billings, EBITDA and Adjusted EBITDA, are not presentations made in accordance with U.S. GAAP, and use of such terms varies from others in our industry. Billings, EBITDA and Adjusted EBITDA should not be considered as alternatives to revenue, net income from continuing operations, operating cash flows or any other performance measures derived in accordance with U.S. GAAP as measures of operating performance, debt covenant compliance or cash flows as measures of liquidity. Billings, EBITDA and Adjusted EBITDA have important limitations as analytical tools, and you should not consider them in isolation or as substitutes for analysis of our results as reported under U.S. GAAP. This presentation includes a reconciliation of certain non-GAAP financial measures to the most directly comparable financial measures calculated in accordance with U.S. GAAP.

Adjusted EBITDA, which is defined in accordance with our debt agreements, is provided herein on a segment basis and on a consolidated basis. Adjusted EBITDA by segment, as determined in accordance with Accounting Standards Codification Topic 280, Segment Reporting, is a measure used by Management to assess the performance of our segments. Adjusted EBITDA on a consolidated basis is presented as a debt covenant compliance measure. Management believes that the presentation of Adjusted EBITDA is appropriate to provide additional information to investors about certain material non-cash items and about unusual items that we do not expect to continue at the same level in the future as well as other items to assess our debt covenant compliance, ability to service our indebtedness and make capital allocation decisions in accordance with our debt agreements.

**Successful 'Back-to-School' Season with YTD Adjusted EBITDA Up 32%
Higher YTD EBITDA Across All Businesses with More Efficient Cost Structure
Total Digital Billings LTM Greater than 50% for the First Time**

Higher Ed: Clear industry outperformance in affordability-focused market. Strong digital growth driven by continued expansion of the Inclusive Access institutional model

K-12: Successful 'back-to-school' season solidified earlier adoption performance in CA and other key markets. Actions taken to rationalize cost structure in H1 will drive profitability and better accommodate cyclical nature of business

International: Prior strategy shift has now improved underlying business - Comparability impacted by actions taken to avoid leakage to U.S. market, FX and other one time events

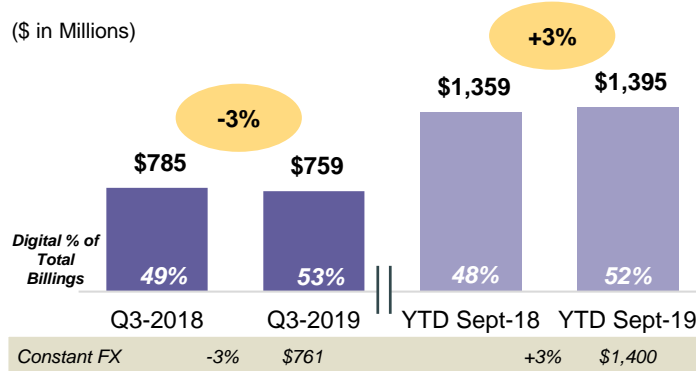
Professional: Strong results driven by continued digital subscription growth and actions to stabilize print

Liquidity: Improved performance drove strong cash flow; \$350M revolver undrawn all year

**Q3 and
YTD 2019
Review**

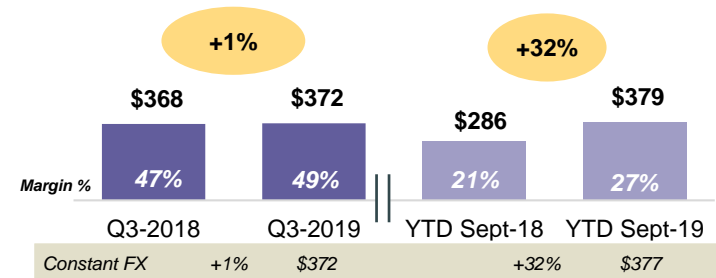
Total MH Billings

(\$ in Millions)



Total MH Adjusted EBITDA

(\$ in Millions)



Key YTD Performance Highlights

Successful 'Back-to-School' in U.S. Higher Ed and K-12 with lower operating costs

U.S. Higher Ed

6%

growth in *Connect* digital activations

74%

Billings were digital (nearly \$400M)

66%

growth in Inclusive Access, to \$70M

- Now available on 950+ campuses

220BPS

improvement in LTM 10/31 competitive performance

- Largest gain in several years
- Includes Rental divot

15%

improvement in YTD product returns vs. 2018

New digital offerings performing well and driving competitive performance gains
Tighter cost management and lower headcount benefitting profitability Y/Y

U.S. K-12

9%

growth in Billings

\$76M

improvement in Adjusted EBITDA

#1

market share in California Social Studies and Science

- #1 in several other adoptions

40%

of Billings were digital (~\$240M)

\$20M+

multi-year digital Open Territory win in Chicago Social Studies (\$14M+ recognized in Q3)

Adoption and Open Territory market growth driving performance
Mid-year cost structure changes will provide benefit into 2020

McGraw-Hill and Cengage Merger Update

- Constructive dialogue ongoing with Department of Justice
- Continue to anticipate closing of merger in early 2020
- Integration planning on track while focusing on business execution as independent companies
- Companies will remain aggressive competitors in the marketplace until closing

Management Update

- Simon Allen was appointed interim President and Chief Executive Officer of McGraw-Hill effective as of October 1, 2019 (previously announced)
 - Simon rejoined McGraw-Hill in early 2018 and has more than 30 years of education industry experience

Capital and Operating Expense Update

- Unrelated to merger, the Company's long-planned relocation within NYC will occur in early 2020
 - One-time capex costs of ~\$30M expected in 2019 with lower ongoing operating costs, prospectively
- Cost containment efforts have proven successful and will continue into 2020 in light of a cyclically smaller K-12 new adoption market opportunity and ongoing Higher Ed affordability initiatives

Fiscal Year-End Change

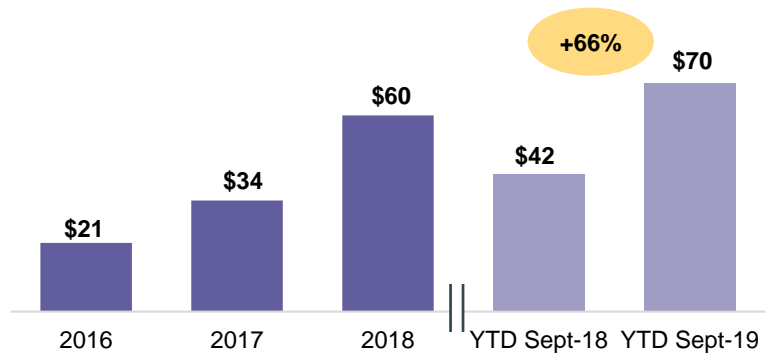
- McGraw Hill will change its fiscal year-end to March 31st to better align with seasonal industry cycles
 - Expect to make this change in H1 2020
 - Will not impact FYE December 31, 2019 reporting

Digital Ed Tech Highlights

Industry leading products drive continued digital growth and improved competitive performance

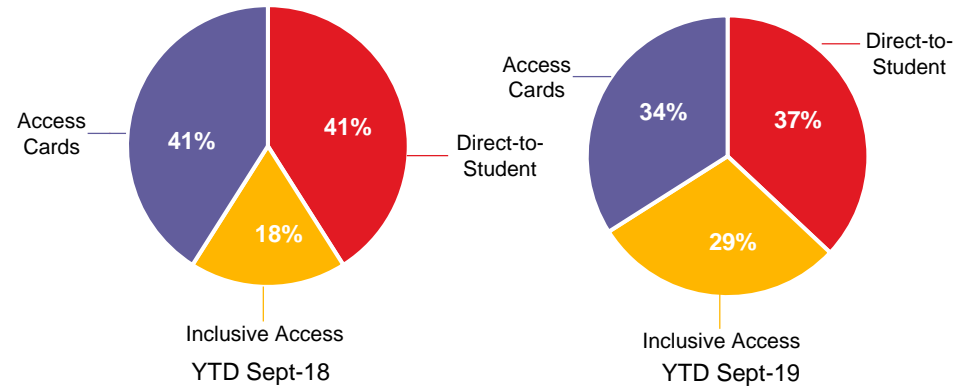
All numbers are in millions

Inclusive Access Net Sales (U.S. Higher Ed)



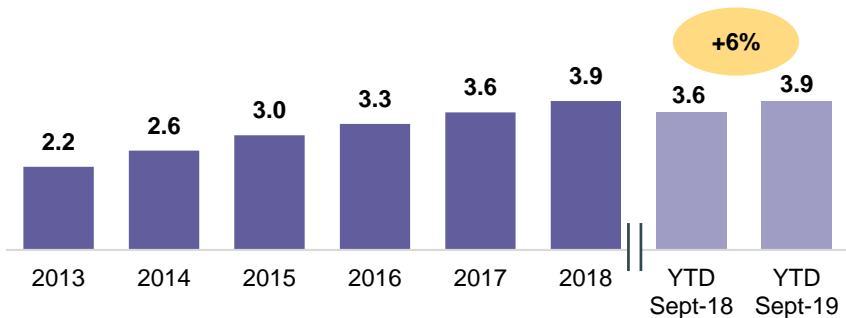
Strategy of securing Inclusive Access institutional agreements that lead to future expansion on campus proven successful

Connect Paid Activations Product Mix (U.S. Higher Ed)



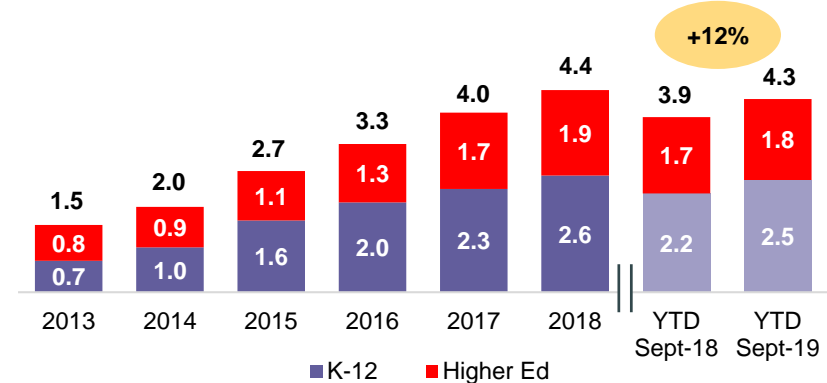
Institutional and direct to student sales combine to offer student/faculty choice, higher sell-through rates and drive digital growth

Connect Paid Activations (U.S. Higher Ed)



Successful digital transition apparent from continued growth of digital activations

ALEKS Unique Users (Global Higher Ed and K-12)



Proven efficacy of ALEKS continues to drive unique user growth in both K-12 and Higher Ed

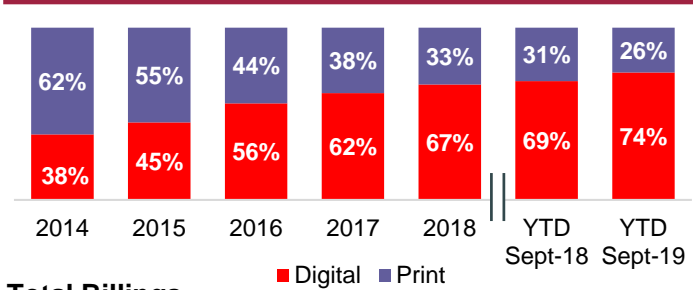
Inclusive Access net sales include a small percentage of print from bundle sales. Amounts may not sum due to rounding.

Higher Education Q3 and YTD-2019 Results

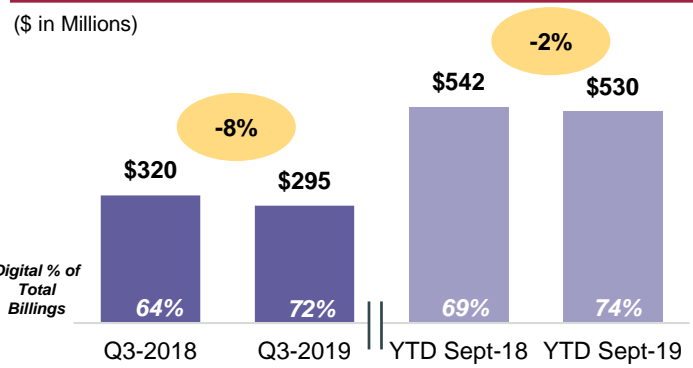
MH continues to gain share in challenging market

- Digital growth drove outsized competitive performance YTD in an affordability-focused market
 - % Digital Billings rose 500 bps to 74% of sales
 - *Connect* Paid Activations up 6%
 - Inclusive Access Net Sales up 66% to \$70M as participating campuses grew to 950+
- Print volumes stabilized (-4%) but affordability initiatives and product mix continue to pressure revenue; Print Billings declined 19% YTD
- Total LTM front-list unit sales stabilized, demonstrating success of digital and print affordability initiatives
 - Print rental program will take longer to fully mature than initially expected with modifications continuing to be evaluated
- Actual product returns improved by \$17M (15%) YTD, in-line with expectations
 - Improvement Y/Y continues in Q4
- Cost rationalization benefiting YTD EBITDA
- Q4 Billings will be impacted by annual sales migration from Q4 to Q1 due to ongoing focus on affordable products sold closer to start of school semester (~\$10M decline in Q4-18)
 - Q3 (as well as Q4) impacted by reinstatement of annual incentive expense
- Competitive performance gains continued through October LTM

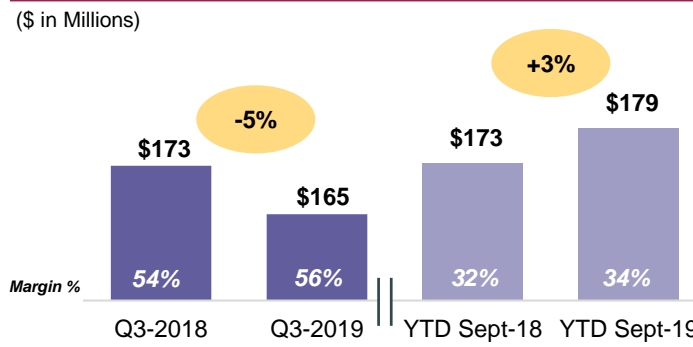
Digital vs. Print Billings Mix %



Total Billings

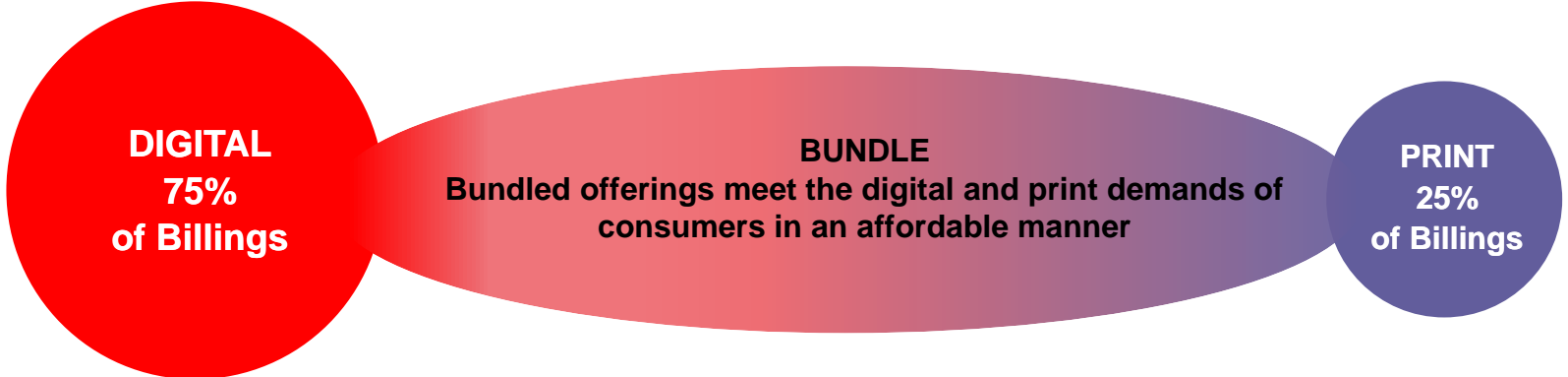


Adjusted EBITDA



*Billings are on an accrued returns basis. Net Sales are on an actual returns basis. Market share as measured by MPI on an LTM Net Sales basis. MPI tracks Higher Ed revenue of new materials only for six select publishers (McGraw-Hill, Pearson, Cengage, Wiley, Oxford and Macmillan). It does not include sales data from other publishers or distributors and does not track used, OER or other sales/rental from other sources.

Higher Ed: Focus on a Digital Future While Providing Choice



Digital Strategy: Accelerate Access to Affordable Digital Offerings

Institutional Sales: Extend “land and expand” focus of Inclusive Access (IA) program by securing additional institutions and expanding instructor adoption, allowing for more affordable, first-day-of-class access to industry leading digital content

E-commerce: Maintain robust direct-to-student channel that allows student needs to be addressed how and where they want to be served (remains single largest distribution channel)

Other Innovative Learning Solutions: Continue to innovate on student learning solutions like this year’s upgraded e-book (Billings up 8% YTD) for instructors who want to ensure digital is available but are not yet ready for the full adaptable digital experience

Print Strategy: Provide Students with Affordable Print Solutions while Protecting Intellectual Property

Rental: Satisfy print demand and participate in long tail market opportunity previously unavailable (recurring vs. transactional revenue)

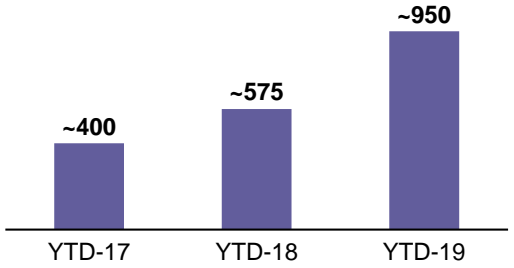
Loose-leaf: Continue to address print demand with an affordable single-use format

Custom: Work with instructors to offer unique, tailored McGraw-Hill content to address specific needs on a limited basis

Higher Ed: Digital Future Accelerated by Inclusive Access

The Growth Engine for Affordability and Increased Student Access

of Inclusive Access (IA) Campuses using *Connect*

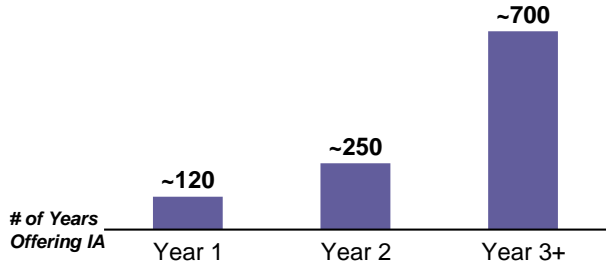


Avg. # of Professors per Campus Using Inclusive Access

	YTD-17	YTD-18	YTD-19
Year 1	4	6	6
Year 2	10	13	15
Year 3+	26	31	32

Total *Connect* Activations through Inclusive Access as of YTD 2019

In thousands



Digital: Inclusive Access Benefits

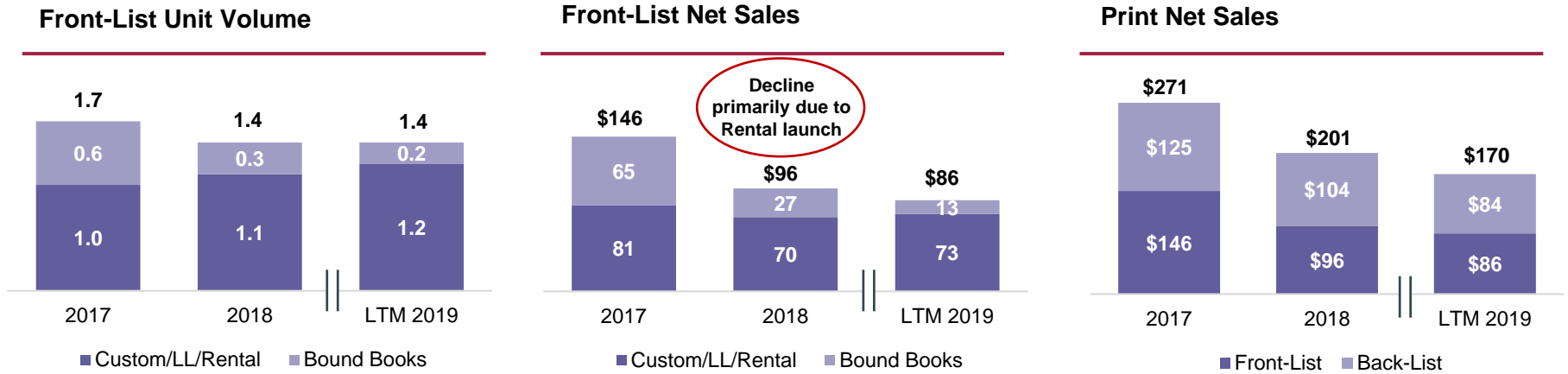
Model for Simple, Affordable Student Access and Improved Outcomes

Customer and Partner Benefits	McGraw-Hill Benefits
<p>Students: Better Outcomes and Increased Affordability</p> <ul style="list-style-type: none">- Delivers most affordable, high-value adaptive digital solution- Seamless Day-One access to course materials- Hassle-free experience; no registration process required since it is incorporated into tuition <p>Instructors: Maintains Freedom of Choice While Simplifying Student Purchase</p> <ul style="list-style-type: none">- Supports student access to most affordable offering- Ensures students have appropriate materials on first day of class- Preserves academic freedom to select materials <p>Institutions</p> <ul style="list-style-type: none">- Aligns with strategic priority of providing affordable solutions while ensuring access and improving outcomes for all students (equity) <p>Bookstore/Channel Partners</p> <ul style="list-style-type: none">- Creates more predictable and growing revenue stream with less physical stock to manage and simplified transaction process	<p>Drives Affordability and Access</p> <ul style="list-style-type: none">- Supports affordability while increasing sell-through rate- Aligns with ecosystem (state, college and institutional) strategic priorities related to access and affordability- More predictable and recurring revenue stream <p>Improved Customer Experience</p> <ul style="list-style-type: none">- Improved control over distribution resulting in lower service level variation and a better managed end-user experience- Material improvement in Net Promoter Scores for faculty and students in the IA model with proven superior retention- Higher satisfaction in faculty who use the IA model than non-IA users <p>Improved Operating Efficiency</p> <ul style="list-style-type: none">- Strategy streamlines sales process, implementation and student registration process- Creates institutional partnership to continuously improve product and service while driving retention and expansion among professors- Seamless LMS integration- Ease of use and support

Print: Deliberate Approach to Provide Affordable Choice

While Billings have declined, front-list volumes have stabilized

All numbers are in millions



Decline primarily due to Rental launch

- MH is committed to providing affordable print solutions that also protect intellectual property (Loose-leaf, Rental and Custom)
 - Print represents ~25% of Billings today and will continue to be available in these formats
- MH introduced its Print Rental program in 2018, intentionally transitioning to a lower-priced, higher-volume recurring revenue model
 - Transition created a 2-3 year sales divot, which should be offset by higher sell-through in future years
 - Currently in year 2 of program, with divot being smaller than in 2018 and trending inline with prior guidance
 - Revenue recognized upon rental thus eliminating return risk and related earnings volatility
- Front-list bound book volume decline in 2018 was driven by the introduction of the Print Rental program
 - Stabilization of front-list unit declines for LTM 2019 period through a combination of Loose-leaf, Rental and Custom offerings
 - Unit growth should continue over time as the Print Rental program takes hold and used alternatives become less readily available

K-12 Q3 and YTD-2019 Results

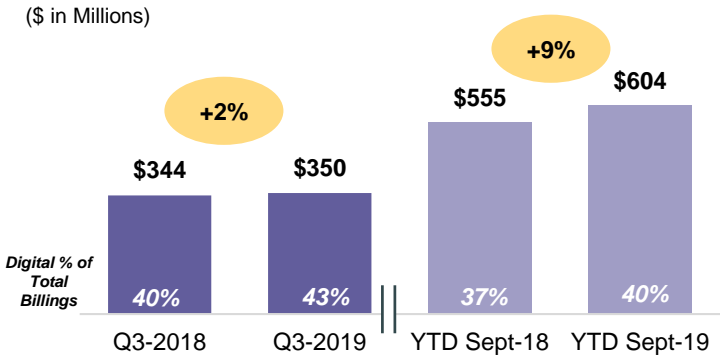
Q3 performance strong in cyclically improved market

- K-12 YTD Billings and Adjusted EBITDA grew as performance continued through the Back-to-School season
 - Both Adoption and Open Territory sales increased in a cyclically stronger market year
- YTD September Billings have improved by ~\$50M (+9%) and have already exceeded full year 2018
- Digital Billings increased by nearly 20% YTD, due in part to mix
 - % Digital was 40% YTD
- Expect full year Billings growth at high-end of previous guidance of “mid-single digits”
 - YTD September trends continue through mid-November
- Adjusted EBITDA YTD improvement of \$76M (+81%)
 - Driven by margin flow-through, lower plate spend and cost structure changes taken earlier in the year with run-rate impact continuing in 2020
 - Q3 (as well as Q4) impacted by reinstatement of annual incentive expense

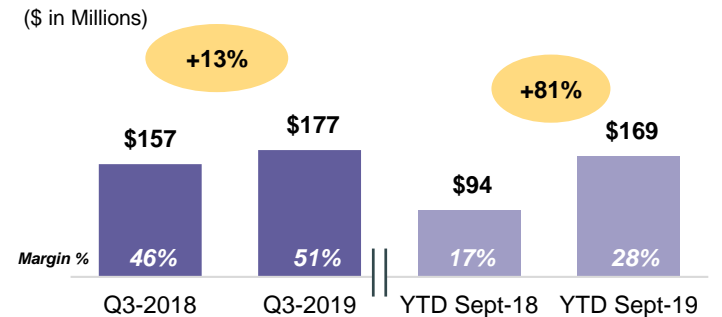
Key Wins in 2019

- ✓ #1 in CA Social Studies anchored by \$30M+ win in L.A.
 - ✓ #1 in CA Science (piloting year)
 - ✓ #1 TN and WV Social Studies (6-12)
- ✓ \$20M multi-year digital program in Chicago Social Studies (\$14M booked in Q3)

Total Billings

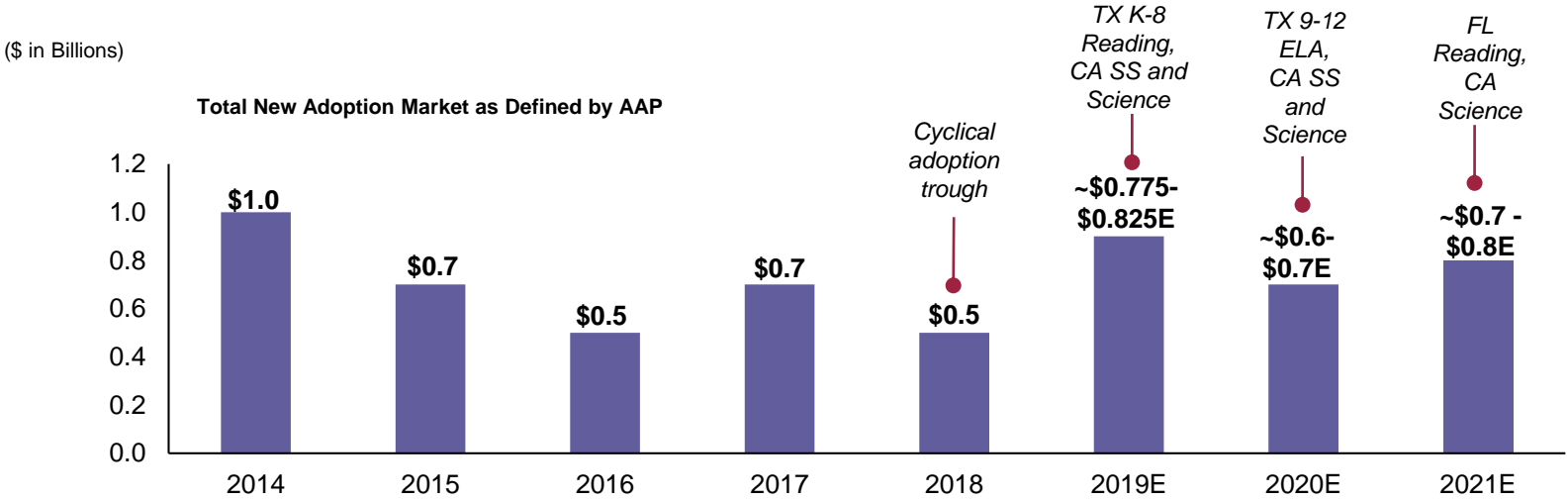


Adjusted EBITDA



K-12 New Adoption Market

New adoption market less volatile than prior cycle; continue to anticipate decline in 2020

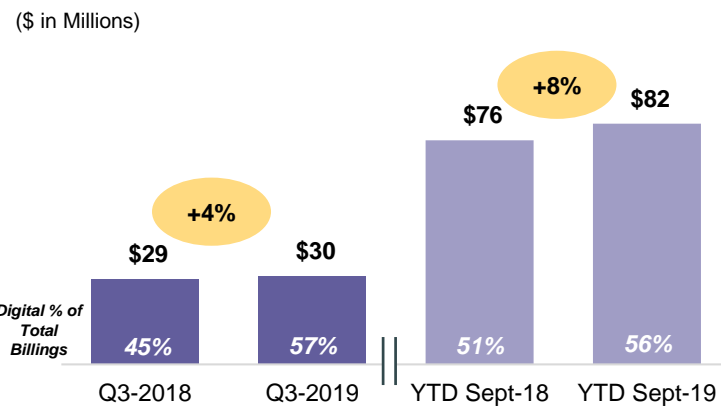


- **New Adoptions:** 3-year market cycle (2019-2021) expected to be stronger than prior 3-year cycle (2016-2018) but will pull back in 2020 before rebounding in 2021
 - 2019 new adoption market expected to be slightly smaller than anticipated due to timing of multi-year ordering in CA
 - Marginal adjustments made in future year assumptions due to timing shifts among smaller states (AL, TN, etc.)
 - MH expects to forgo participation in \$50M of adoption opportunities in 2020 in order to focus on core disciplines
- **Open Territory:** Expect market to trade in historical range of -3% to +3% over next several years
 - 2020 MH performance to be impacted by material 2019 wins in Chicago and CA 9-12 Social Studies (both highly digital)
- **Residual Market/Other:** Has historically grown in years following large adoption increases; market expectations tempered by growth in digital subscriptions (typically less follow-on business)
- **Total Market Opportunity:** 2020 market opportunity is expected to be smaller than 2019 due to cyclical swings in new adoptions. MH Billings were about 50/50 in FY 2018 between Adoptions (New and Residual) and Open Territory
- **Cost Considerations:** Cost reductions taken in 2019 will partially mitigate impact of expected cyclical market decline in 2020. Additional savings are being identified to mitigate EBITDA impact while balancing new product investment needs

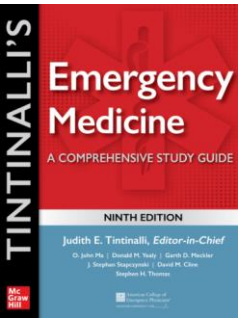
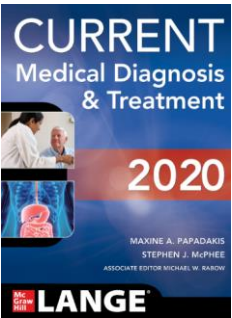
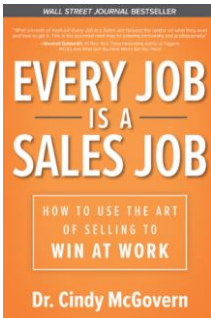
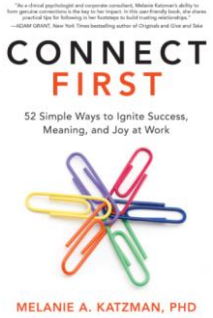
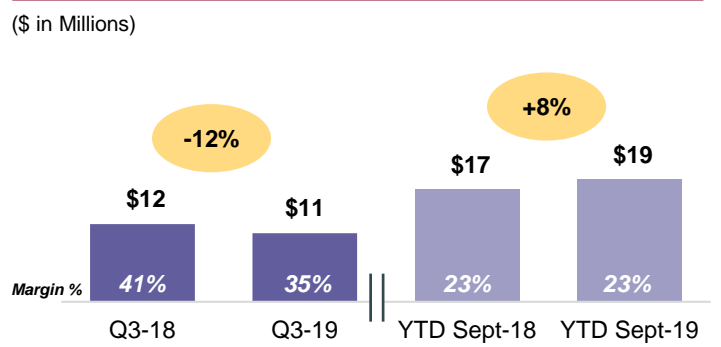
Professional Q3 and YTD-2019 Results

- Continued growth in Professional business driven by 19% improvement in digital Billings
 - % Digital Billings YTD increased by 500 bps, to 56% of Total Billings
 - Access subscription Billings grew in every region globally and remains on track for annual renewal rates in excess of 90%
- Print business continued to stabilize, down only 4%, due to aggressive actions taken to limit U.S. product leakage risk and mitigate lost sales
 - Portion of gain represents an offset to international sales that were negatively impacted by the tighter controls
- Adjusted EBITDA YTD growth of 8% driven by flow-through on higher Billings
- Q3 (as well as Q4) impacted by reinstatement of annual incentive expense

Total Billings



Adjusted EBITDA

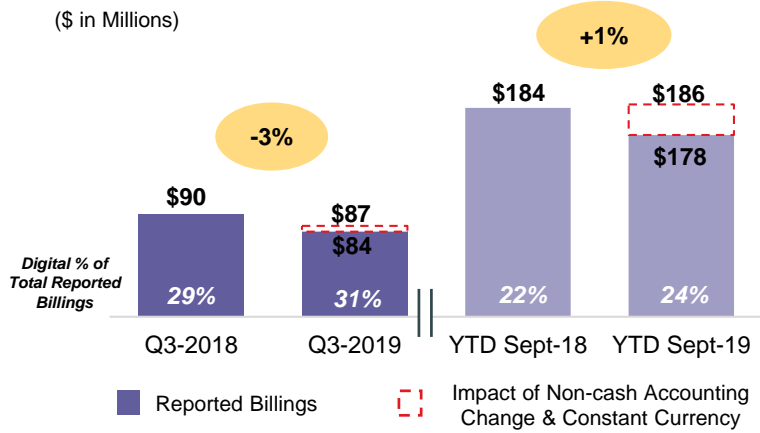


Renewal rate is measured annually at year-end.

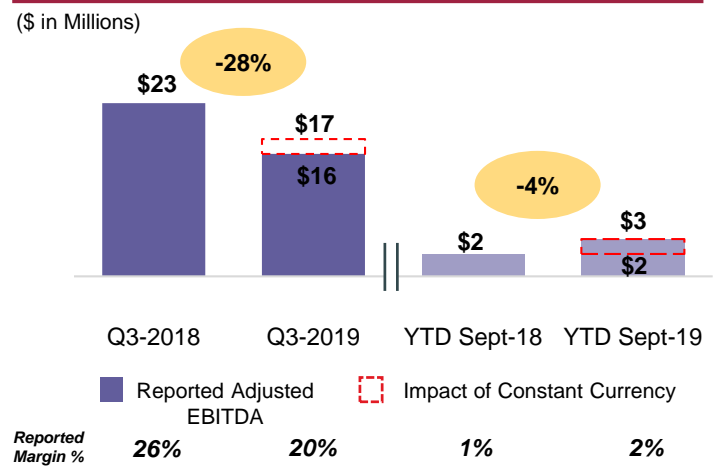
International Q3 and YTD-2019 Results

- Total Billings increased 1% YTD on a consistent accounting and constant currency basis, driven by a strong regional front-list release, strong K-12 performance and robust digital growth
- Digital Billings increased 7% YTD (up ,17% excluding licensing arrangements in UAE and China)
 - International ALEKS growth continues with unique users up ~60%
- Print Billings were negatively impacted by actions taken on U.S. editions of Higher Ed and Professional product sales to prevent leakage in the U.S. market
 - Impact largely offset by better print performance in the domestic Professional division
- Adjusted EBITDA relatively flat YTD on constant currency basis (increased on as reported basis) with Q3 negatively impacted by increased bad debt expense for two customers as well as an increase in incentive compensation expense
 - Digital growth combined with robust regional front-list sales drives material margin improvement in most markets
- Favorable mix and improved customer composition should drive Adjusted EBITDA growth in Q4

Total Billings



Adjusted EBITDA



Charts above reflect impact of constant currency on Billings and Adjusted EBITDA and impact of non-cash accounting change on Billings (no impact on Adjusted EBITDA)

Capital Structure and Liquidity

Strong cash balance and \$500M of committed liquidity for future; Revolver undrawn YTD

- \$324M of cash at 9/30 continuing to build in Q4 based on stronger sales in K-12 and improved collections
- \$350M committed line of credit undrawn at all times YTD
- New receivable securitization program highly successful in first year
 - Up to \$50M multi-year program scales to up to \$150M seasonally
 - \$95M outstanding at 9/30 was seasonal contractual minimum; subsequently paid down to \$45M
 - Subsequently closed on annual renewal of seasonal facility to October 2020
- No material funded debt maturities until 2022
- \$500M of committed liquidity facilities (revolver and seasonal securitization) in addition to building cash balances

McGraw-Hill Debt Profile: 9/30/19*

(\$ in Millions)

Senior Secured Term Loan due 2022	\$1,657
Revolving Credit Facility due 2021 (\$350M)	—
Total First Lien Indebtedness	\$1,657
Less: Cash and Cash Equivalents	(324)
Net First Lien Indebtedness	\$1,333
Last Twelve Months Adjusted EBITDA	\$353
Net First Lien Indebtedness / Adjusted EBITDA¹ (covenant not required to be tested)	3.8x
Senior Unsecured Notes Due 2024	400
Net Total Indebtedness-MH Global Education	\$1,733
MHGE Parent Term Loan Due 2022	\$180
Parent Cash Escrow	(20)
Net Total Indebtedness – MHE Inc.	\$1,893

*9/30 cash excludes \$20M of cash from the MHGE Parent escrow account.

Securitization outstandings at 9/30 (\$95M) are excluded from debt profile as they are excluded from the definition of debt under the first lien credit agreement.

Revolving credit facility outstandings exclude \$4.3M of letters of credit issued.

Net Total Indebtedness – MHE Inc. includes \$20M of MHGE Parent escrow cash.

¹Net First Lien Leverage covenant for revolving credit facility is tested if 30% of revolving credit facility is drawn at quarter-end. Usage was less than 30% at 9/30/19, so covenant did not apply. Net First Lien Leverage covenant levels, if required to be tested, would be 5.25x in Q2 and 4.8x in Q1, Q3 and Q4. EBITDA used to calculate Net First Lien Leverage covenant ratio would be Adjusted EBITDA plus pro-forma adjustments that are permitted under Credit Agreement and Indenture.

Summary

- Significant improvement in financial results YTD and expected for FY 2019
- Higher Ed affordability initiatives drove considerable market share gains; Business continues to move to the start of the term (Q4 to Q1) with digital, Rental and Inclusive Access transition
- K-12 performance driven by cyclically larger market, success in digital-based Social Studies and Science adoptions and material ongoing cost savings
- Professional results continue to perform in-line with expectations driven by new and renewal subscription sales and print stabilization
- International business stabilizing with front-list investment and favorable customer composition
- Cost containment efforts have proven successful and will continue into 2020 in light of a cyclically smaller K-12 new adoption market opportunity and Higher Ed affordability initiatives
- H2 Adjusted EBITDA comparability vs. prior year will be impacted by timing and level of incentive compensation expense
- Over \$800M of liquidity for next season's working capital cycle (including cash and committed lines of credit) with no material funded debt maturities until 2022
- Proposed merger with Cengage expected to close in early 2020

McGraw-Hill is Focused on Executing 2019 and 2020 Operational Priorities

A young woman with dark hair in a bun, wearing black-rimmed glasses and a red and black plaid shirt, is smiling while looking at a tablet computer. She is in a library or bookstore, with bookshelves filled with books visible in the background. The lighting is warm and focused on her.

**Appendix:
Supplemental Disclosure
And Financial Tables**

Free Cash Flow

(\$ in Millions)

Cash Flow Comparison	Nine Months Ended Sep 30,		
	2018	2019	Y/Y \$
Adjusted EBITDA	286	379	92
Δ in Accounts Receivable, net	(289)	(172)	117
Δ in Inventories, net	(11)	7	18
Δ in Prepaid & Other Current Assets	(7)	(5)	2
Δ in Accounts Payable and Accrued Expenses	(49)	(23)	26
Δ in Other Current Liabilities	112	12	(100)
Δ in Reported Working Capital Accounts	(244)	(181)	63
Adjustments to Derive Operational Working Capital ¹	9	7	(1)
Δ in Adjusted Working Capital Accounts	(235)	(174)	61
Adjusted EBITDA less Δ in Adjusted Working Capital Accounts	51	205	154
Pre-publication Investment	71	56	(15)
Restructuring and Cost Savings Implementation Charges	(9)	(8)	1
Sponsor Fees	(3)	(3)	-
Cash Paid for Interest	(111)	(110)	2
Net (loss) from Discontinued Operations	-	-	-
Operational Working Capital Adjustments and Other ²	(18)	(47)	(29)
Cash (used for) provided by operating activities	(18)	94	112

Adjusted EBITDA less Δ in Working Capital Accounts per above	51	205	154
- Capital Expenditures & Payment of Capital Lease Obligations	(57)	(56)	1
Operating Free Cash Flow²	(5)	149	155

Cash Balance at Beginning of Period	408	346	(62)
Cash (used for) provided by operating activities	(18)	94	112
Dividends	(3)	-	3
Net Debt (Payments) / Receipts	159	18	(141)
Repurchase of MHGE PIK Toggle Notes	(243)	-	243
Pre-publication Investment	(71)	(56)	15
Capital Expenditures	(49)	(49)	0
Investments, Acquisitions & Divestitures, net	1	3	1
Payment of Capital Lease Obligations	(8)	(7)	1
Equity transactions, net	2	(4)	(6)
Other	(4)	(1)	3
Cash Balance at End of Period	174	344	170

Pre-Publication Investment Detail			
	2018	2019	Y/Y \$
Higher Education	26	19	(7)
K-12	33	26	(7)
International	6	5	(1)
Professional	6	6	0
Total	71	56	(15)

Key Variance Drivers

- Accounts Receivable: change attributable to the reclassification of the sales return reserve (\$119M) to other current liabilities
- Inventories: change attributable to higher K-12 inventory levels at Dec-18 as compared to Dec-17
- AP / Accrued Expenses: change attributable to a higher incentive accrual at Sep-19 as compared to Sep-18
- Other Current Liabilities: change attributable to the reclassification of the sales return reserve from accounts receivable (\$119M)

Other:

- NYC Headquarters Relocation: \$14M of costs incurred through 9/30.
- Merger Integration and Transaction Fees: \$12M of costs paid through 9/30.

K-12 Industry New Adoption Market Overview

New State Adoptions by Purchase Year ¹					
	2019	2020E	2021E	2022E	2023E

Largest Adoption States

California (K-8)	Social Studies*	Science*	Science*		Math
	Science	Social Studies*			
Florida			Reading	Math	Social Studies
Texas	Reading (K-8)	Reading (9-12)			Science (K-12)

All Other Adoption States

Alabama	Science		Math	Reading	Social Studies
Idaho	Reading	Science		Math	Social Studies
Mississippi	Social Studies		Reading		
	Math				
New Mexico	Science	Math	Reading (9-12)	Reading (K-8)	Social Studies
North Carolina	Math K-8	Reading			
Oklahoma	Reading	Social Studies	Science (K-12)	Reading	Reading
Oregon	Social Studies		Reading		Math
South Carolina		Math (K-8)	Social Studies		
		Social Studies			
Tennessee	Social Studies	Reading			Math
Virginia	Reading	Science			
West Virginia	Social Studies		Reading	Science	Science

¹Excludes new state adoptions in non-core disciplines such as career & technical education, music, art, world languages, health, etc.

Purchases from AR & IN classified as open territory effective 2015

*Disciplines reflect 2nd year of major purchasing; **Disciplines reflect 3rd year of major purchasing

North Carolina and Tennessee reading in 2020 are expected to extend for multiple years

Billings and Adjusted EBITDA

Billings is a non-GAAP performance measure that provides useful information in evaluating our period-to-period performance because it reflects the total amount of revenue that would have been recognized in a period if we recognized all print and digital revenue at the time of sale. We use Billings as a performance measure given that we typically collect full payment for our digital and print solutions at the time of sale or shortly thereafter, but recognize revenue from digital solutions and multi-year deliverables ratably over the term of our customer contracts. As sales of our digital learning solutions have increased, so has the amount of revenue that is deferred in accordance with U.S. GAAP. Billings is a key metric we use to manage our business as it reflects the sales activity in a given period, provides comparability from period-to-period during this time of digital transition and is the basis for all sales incentive compensation. In the K-12 market where customers typically pay for five to eight year contracts upfront and the ongoing costs to service any contractual obligation are limited, the impact of the change in deferred revenue is most significant. Billings is U.S. GAAP revenue plus the net change in deferred revenue.

EBITDA, a measure used by management to assess operating performance, is defined as net income from continuing operations plus net interest, income taxes, depreciation and amortization (including amortization of pre-publication investment cash costs). Adjusted EBITDA is a non-GAAP debt covenant compliance measure that is defined in accordance with our debt agreements. Adjusted EBITDA is a material term in our debt agreements and provides an understanding of our debt covenant compliance, ability to service our indebtedness and make capital allocation decisions in accordance with our debt agreements.

Each of the above described measures is not a recognized term under U.S. GAAP and does not purport to be an alternative to revenue, income from continuing operations, or any other measure derived in accordance with U.S. GAAP as a measure of operating performance, debt covenant compliance or to cash flows from operations as a measure of liquidity. Additionally, each such measure is not intended to be a measure of free cash flows available for management's discretionary use, as it does not consider certain cash requirements such as interest payments, tax payments and debt service requirements. Such measures have limitations as analytical tools, and you should not consider any of such measures in isolation or as substitutes for our results as reported under U.S. GAAP. Management compensates for the limitations of using non-GAAP financial measures by using them to supplement U.S. GAAP results to provide a more complete understanding of the factors and trends affecting the business than U.S. GAAP results alone. Because not all companies use identical calculations, our measures may not be comparable to other similarly titled measures of other companies.

Management believes Adjusted EBITDA is helpful in highlighting trends because Adjusted EBITDA excludes the results of certain transactions or adjustments that are non-recurring or non-operational and can differ significantly from company to company depending on long-term strategic decisions regarding capital structure, the tax rules in the jurisdictions in which companies operate, and capital investments. In addition, Billings and Adjusted EBITDA provide more comparability between the historical operating results and operating results that reflect purchase accounting and the new capital structure post the Founding Acquisition as well as the digital transformation that we are undertaking which requires different accounting treatment for digital and print solutions in accordance with U.S. GAAP.

Management believes that the presentation of Adjusted EBITDA, which is defined in accordance with our debt agreements, is appropriate to provide additional information to investors about certain material non-cash items and about unusual items that we do not expect to continue at the same level in the future as well as other items to assess our debt covenant compliance, ability to service our indebtedness and make capital allocation decisions in accordance with our debt agreements.

Note: In compliance with SEC interpretative guidance, we now refer to 'Adjusted Revenue' as 'Billings' throughout the presentation.

Adjusted EBITDA Reconciliation

(\$ in Millions)

	Three Months Ended September 30,		Nine Months Ended September 30,		Year Ended Dec 31,	LTM September 30,
	2018	2019	2018	2019	2018	2019
Net Income	\$ 56	\$ 54	\$ (115)	\$ (103)	\$ (160)	\$ (148)
Interest (income) expense, net	46	46	136	138	180	182
Provision for (benefit from) taxes on income	3	3	4	7	10	13
Depreciation, amortization and pre-pub. amortization	68	72	163	170	220	227
EBITDA	\$ 173	\$ 175	\$ 188	\$ 212	\$ 250	\$ 274
Change in deferred revenue (a)	232	217	144	189	64	109
Change in deferred royalties (b)	(24)	(26)	(12)	(27)	(5)	(21)
Change in deferred commissions (c)	1	(1)	-	(2)	1	(1)
Restructuring and cost saving implementation changes (d)	-	-	9	8	10	9
Sponsor fees (e)	1	1	3	3	4	4
Transaction costs (f)	-	5	-	17	-	18
Merger Integration Costs (g)	-	5	-	6	-	6
Other (h)	11	10	26	29	37	40
Pre-pub. investment cash costs (i)	(25)	(14)	(71)	(56)	(100)	(85)
Adjusted EBITDA	\$ 369	\$ 372	\$ 287	\$ 379	\$ 261	\$ 353

Adjusted EBITDA Footnotes

- (a) We receive cash up-front for most sales but recognize revenue (primarily related to digital sales) over time recording a liability for deferred revenue at the time of sale. This adjustment represents the net effect of converting deferred revenues to a cash basis assuming the collection of all receivable balances.
- (b) Royalty obligations are generally payable in the period incurred with limited recourse. This adjustment represents the net effect of converting deferred royalties to a cash basis assuming the payment of all amounts owed in the period incurred.
- (c) Commissions are generally payable in the period incurred. This adjustment represents the net effect of converting deferred commissions to a cash basis assuming the payment of all amounts owed in the period incurred.
- (d) Represents severance and other expenses associated with headcount reductions and other cost savings initiated as part of our formal restructuring initiatives to create a flatter and more agile organization.
- (e) Represents \$3.5 million of annual management fees and payable to Apollo.
- (f) The amount represents the transaction costs associated with the Merger Agreement entered into between the Company and Cengage on May 1, 2019.
- (g) The amount represents the integration costs associated with the Merger Agreement entered into between the Company and Cengage on May 1, 2019.
- (h) For the three and nine months ended September 30, 2019 and 2018, and for the year ended December 31, 2018, the amount represents (i) non-cash incentive compensation expense and (ii) other adjustments required or permitted in calculating covenant compliance under our debt agreements.
- (i) Represents the cash cost for pre-publication investment during the period.