Harvard Bioscience, Inc.

Solutions to Advance Life Science

Investor Presentation

Jim Green, President and CEO

December 2019

Forward-Looking Statements and Non-GAAP Financial Information

Forward-Looking Statements

This information in this presentation or in oral statements of the management of the Company may include forward-looking statements within the meaning of the federal securities laws, including the Private Securities Litigation Reform Act of 1995. You can identify these statements by our use of such words as "will," "guidance," "objectives," "optimistic," "potential," "future," "expects," "plans," "estimates," "continue," "drive," "strategy," "potential," "potentially," "growth," "long-term," "projects," "projected," "intends," "believes," "goals," "sees," "seek," "develop" "possible" "new," "emerging," "opportunity," "pursue" and similar expressions that do not relate to historical matters. Forward-looking statements in this presentation or that may be made during our presentation may include, but are not limited to, statements or inferences about the Company's or management's beliefs or expectations, the Company's anticipated future revenues and earnings, the strength of the Company's market position and business model, industry outlook; the Company's business strategy, the positioning of the Company for growth, the market demand and opportunity for the Company's current products, or products it is developing or intends to develop, and the Company's plans, objectives and intentions that are not historical facts. These statements involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Investors should note that many factors, as more fully described under the caption “Risk Factors” in our Form 10-K, including our Form 10-K for the year ended December 31, 2018, Form 10-Q and Form 8-K filings with the Securities and Exchange Commission and as otherwise enumerated herein or therein may cause the Company's actual results to differ materially from those in the forward-looking statements. The forward-looking statements in this presentation are qualified by these risk factors. The Company's results may also be affected by factors of which the Company is not currently aware. The Company may not update these forward-looking statements, even though its situation may change in the future, unless it has obligations under the federal securities laws to update and disclose material developments related to previously disclosed information.

Management’s Use of Non-GAAP Financial Information

In this presentation, we have included non-GAAP financial information including adjusted revenue, adjusted gross profit, adjusted operating expenses, adjusted operating income, adjusted net income, and adjusted diluted earnings per share. We believe that this non-GAAP financial information provides investors with an enhanced understanding of the underlying operations of the business. For the periods presented, these non-GAAP financial measures of revenue and income have excluded certain revenue and expenses and income primarily resulting from purchase accounting or events that we do not believe are related to the underlying operations of the business such as currency translation, amortization of intangibles related to acquisitions, costs related to acquisition, disposition and integration initiatives, impairment charges, gains or losses from divestitures, severance and restructuring expenses, and stock-based compensation expense. They also exclude the tax impact of the reconciling items. This non-GAAP financial information approximates information used by our management to internally evaluate the operating results of the Company. Any non-GAAP measures included herein are accompanied by a reconciliation to the nearest corresponding GAAP measure within this presentation.

The non-GAAP financial information provided in this presentation and should be considered in addition to, not as a substitute for, the financial information provided and presented in accordance with GAAP, and may be different than other companies’ non-GAAP financial information.

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Harvard Bioscience, Inc.

Solutions to Advance Life Science

Company Overview

What We Do

HBIO engineers and sells enabling technologies, products and services to Academia, CROs and Pharma for discovery through pre-clinical phases of drug development

Discovery *– research and molecule selection* ***Pre-Clinical*** *- in vivo safety required for all drugs*

CMT: Cellular & Molecular Technologies*

- Cellular and Molecular Biology
- CRISPR / Gene Splicing related tech
- Electrophysiology & Electro-Chem
- Behavioral Research

DSI: Pre-Clinical Systems

- Physiological Monitoring & Telemetry
- Data Acquisition & Analysis
- Behavioral Research
- Scientific Services

** Combination of what was formerly referred to as PCMI and Ephys*

Leverage our technologies across customers and call-points

Harvard Bioscience

From Discovery through Pre-Clinical

Discovery *(primarily Academic)* | Pre-Clinical *(primarily Pharma/CROs)*

Customers/ call-points

MGH 1811, Mayo Clinic, University of Oxford, Harvard University, UCSF University of California San Francisco, Duke University, Imperial College London, University of Cambridge, Karolinska Institutet, Katholieke Universiteit Leuven, UCL, 東京大学 The University of Tokyo, Heidelberg Universität, Berkeley University of California, The University of Edinburgh

gsk, Johnson & Johnson, abbvie, Genentech, AstraZeneca, U.S. Army, Pfizer, Medtronic, Boehringer Ingelheim, AMGEN

Covance Solutions Made Real, Charles River, Bayer, WuXi AppTec, Lilly, Merck Inventing for Life, Novartis, CDC Centers for Disease Control and Prevention, Sanofi, Battelle The Business of Innovation

Sales Channels

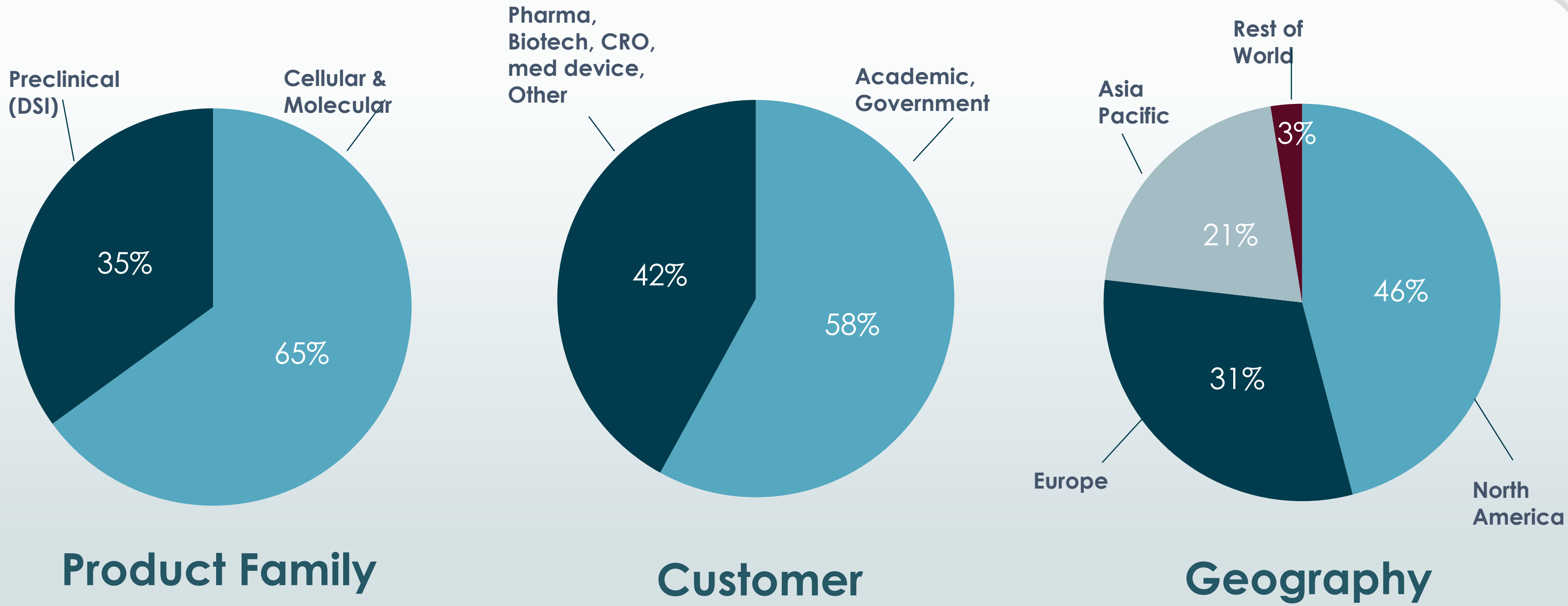
Cellular & Molecular Technologies

Pre-Clinical Systems (DSI)

Electroporation, CRISPR Technology, Precision Infusion, Electrophysiology, Gene Splicing, Behavioral Systems, Spectrophotometers, Amino Acid Analysis

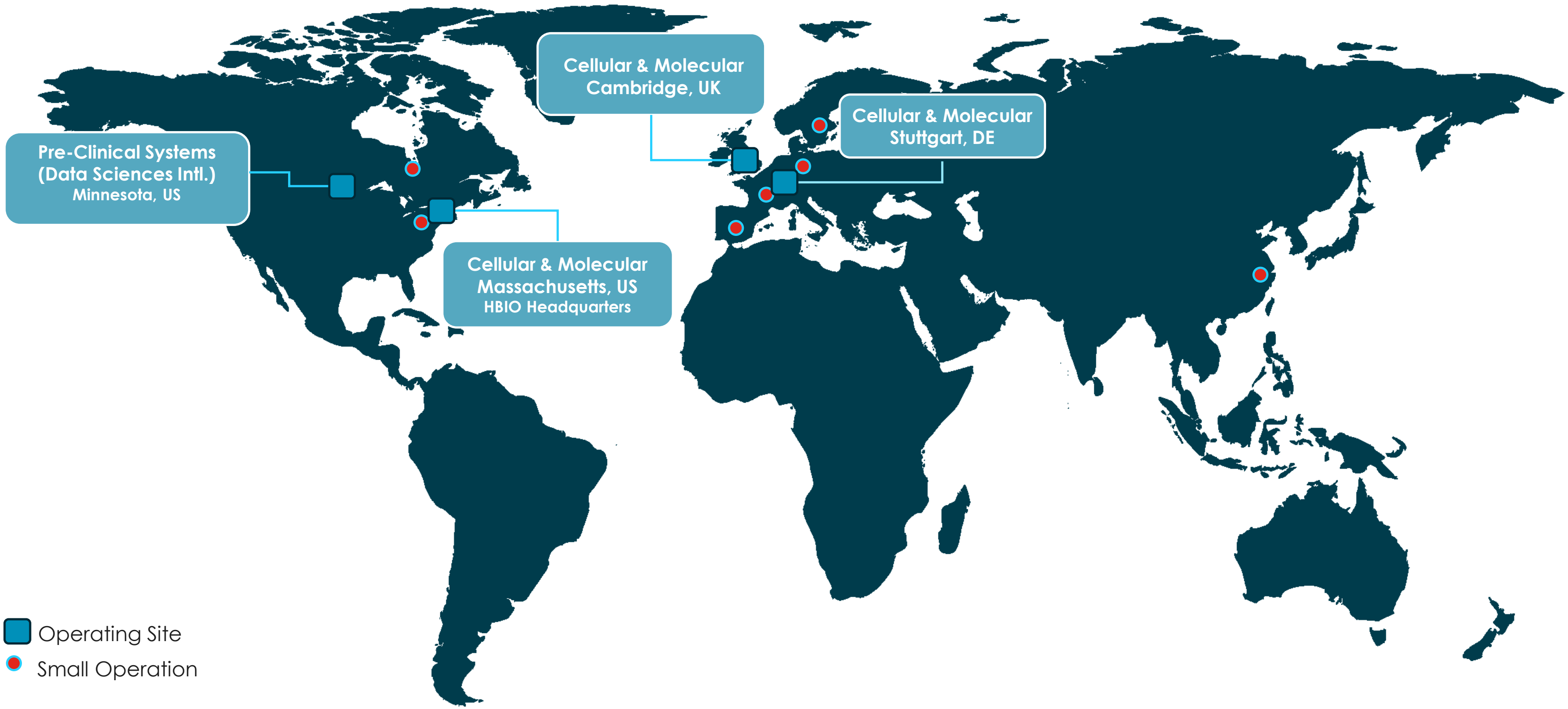
Real-time Physiological Monitoring, Wireless Telemetry, Wireless Implantables, Surgical Implant Services

A global platform with a balanced portfolio



** Full Year 2018 Revenue*

Global Footprint



Financial Summary

	2017	2018	2019 Guidance
Revenue	$102M	$122M	$116 – $118M
Adj. Gross Margin	47%	56%	~56%
Adj. Operating Margin	7%	12%	~12%
Adj. EPS	$0.12	$0.20	$0.19

- 2018 acquisition of high margin pre-clinical technologies business (DSI) and sale of low margin distribution business (Denville) complete change in our margin
- 2019: Consolidate, stabilize & reorganize for sustainable revenue/margin/earnings expansion

**See appendix for reconciliation of financial measurements above to nearest GAAP measurement*

Harvard Bioscience, Inc.
Solutions to Advance Life Science

Value Creation Strategy and Action Timeline

Investment Highlights

- We Engineer, Manufacture, Sell and Service Life Science technologies that enable drug discovery research through pre-clinical pharma testing
- Attractive end markets with significant upside potential
- Strong brands, large installed base with blue chip recurring customers
- We are the gold standard in Pharma/CRO pre-clinical testing
- New leadership team driving margin expansion and growth platform

Action Plan – Public Targets

2019 - immediate

- Initiate action plan
- Achieve our financial goals
- Complete the team

2020 (2nd Half)

- Subscale Site Consolidations
- Combined CMT Sales Teams
- Reduced COGS & OPEX
- Organic revenue growth actions

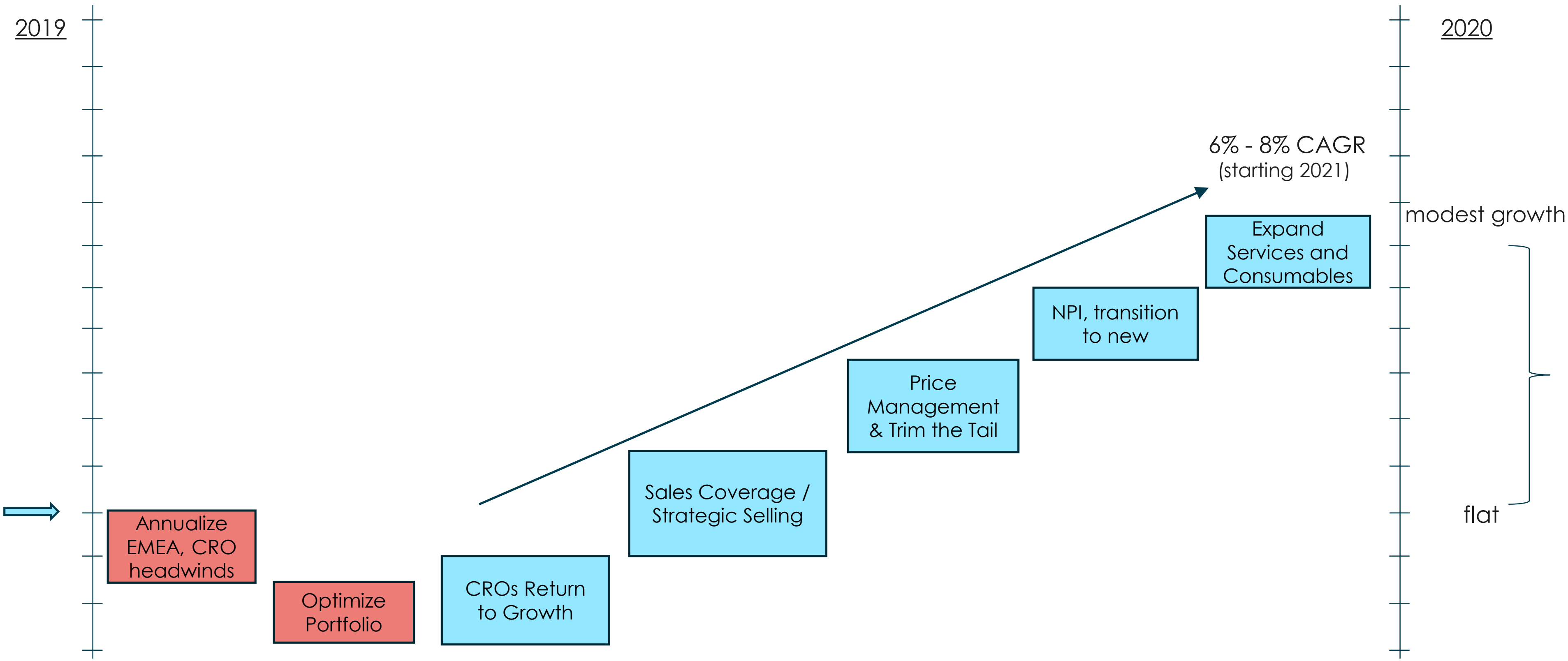
2021 - Go Forward

- Profitable organic growth
- Return to inorganic
- Lean operations & inventory management to drive cash flow

Guidance from Q3		Targets (2H 2020)	Targets
Revenue	$116-$118M	Modest growth	6-8% organic
Adj. Gross Margin	56%	58% (H2)	60%
Adj. Operating Margin	12-13%	17% (H2)	20%
		Leverage ratio < 3X	

**See appendix for reconciliation of financial measurements above to nearest GAAP measurement*

Path to Organic Growth



Summary

We Are Building a Growth Platform …

- Capitalizing on the strong global Harvard Bioscience and Data Sciences Franchises
- Consolidations and operating synergies to drive scale and reduce fixed costs
- Reigniting organic growth
- Reduce debt, continue disciplined capital allocation
- We are committed to our public targets

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Thank You

Appendix and Reconciliations of Non-GAAP Measures

Reconciliation of GAAP to Non-GAAP Financial Measures (unaudited)

Harvard Bioscience

	Year Ended December 31,	
	2018	2017
GAAP revenue	$ 120,774	$ 77,407
Denville revenue reported within discontinued operations	893	24,475
Deferred revenue valuation adjustments on acquisition	284	0
Adjusted revenue	$ 121,951	$ 101,882
GAAP gross profit	$ 63,181	$ 39,170
Stock-based compensation expense	65	60
Severance, restructuring and acquisition costs	82	92
Non-cash expense - acquisition accounting	4,300	-
Denville operations	360	8,432
Adjusted gross profit	$ 67,988	$ 47,754
GAAP gross profit % of revenue	52.3%	50.6%
Adjusted gross profit % of revenue	55.8%	46.9%
GAAP operating expenses	$ 62,197	$ 39,805
Stock-based compensation expense	(2,894)	(3,382)
Severance, restructuring and acquisition costs	(772)	(426)
Intangible asset amortization	(5,384)	(1,553)
Non-cash expense - acquisition accounting	(4,719)	-
Denville adjusted operating expense	(17)	(1,607)
Forensic investigation and other costs	-	(481)
Adjusted operating expenses	$ 48,411	$ 32,356

Reconciliation of GAAP to Non-GAAP Financial Measures (unaudited)

	Year ended December 31, 2018	Year ended December 31, 2017
GAAP operating income (loss)	**$ 984**	**$ (635)**
Stock-based compensation expense	2,894	3,382
Severance, restructuring and acquisition costs	772	426
Intangible asset amortization	5,384	1,553
Non-cash expense - acquisition accounting	4,719	-
Denville adjusted operating income	17	1,607
Forensic investigation and other costs	-	481
Adjusted operating income	**$ 14,770**	**$ 6,814**
GAAP net loss	**$ (2,922)**	**$ (865)**
Stock-based compensation expense	2,894	3,382
Severance, restructuring and acquisition costs	772	426
Intangible assets amortization	5,384	1,553
Non-cash expense - acquisition accounting	4,719	-
Denville adjusted operating income (A)	(920)	1,072
Acquisition, disposition and integration costs	3,294	694
Forensic investigation and other costs	-	481
Income taxes (B)	(5,861)	(2,519)
Adjusted net income	**$ 7,360**	**$ 4,224**
GAAP diluted loss per common share	**$ (0.08)**	**$ (0.02)**
Adjusted items after tax per share assuming dilution	0.28	0.14
Adjusted diluted earnings per common share	**$ 0.20**	**$ 0.12**

(A) For the year ended December 31, 2018, the Non-GAAP adjustments reported in discontinued operations related to the sale of Denville included a $1,251 gain on sale, $47 in amortization of intangible assets, $132 in disposition costs, and $150 in stock-based compensation expense. For the year ended December 31, 2017, the Non-GAAP adjustments reported in discontinued operations related to the sale of Denville included $889 in amortization of intangible assets, $65 in severance and restructuring charges, and $118 in stock-based compensation expense.

(B) Income taxes includes the tax effect of adjusting for the reconciling items using the calculated effective tax rate, including the post-2017 impact of tax reform, in the jurisdictions in which the reconciling items arise.

Reconciliation of GAAP Measures to Non-GAAP Guidance for 2019

Projected GAAP gross profit % of revenue (A)		55.6%
Adjustments:		
Severance, restructuring, and acquisition costs		0.3%
Non-cash expense - acquisition accounting		0.1%
Projected adjusted gross profit % of revenue (A)		56.0%
Projected GAAP operating loss % of revenue (A)		1 % - 2 %
Adjustments:		
Stock-based compensation expense		3%
Severance, restructuring, and acquisition costs		2%
Intangible assets amortization and impairments		6%
Projected adjusted operating income % of revenue (A)		12 % - 13 %
Projected GAAP diluted loss per common share (A)	$	(0.10)
Adjustments:		
Stock-based compensation expense		0.08
Severance, restructuring and acquisition costs		0.07
Intangible assets amortization and impairments		0.19
Non-cash expense - acquisition accounting		0.01
Income taxes (B)		(0.06)
Projected adjusted diluted earnings per common share (A)	$	0.19

(A) This guidance excludes, among other things, the impact of future acquisitions, acquisition costs, restructuring charges, or other one-time charges.

(B) Income taxes includes the tax effect of adjusting for the reconciling items using the calculated effective tax rate, including the post-2017 impact of tax reform, in the jurisdictions in which the reconciling items arise and any changes to valuation allowances.