

### FORWARD-LOOKING STATEMENTS

This presentation contains statements that are forward looking within the meaning of the Private Securities Litigation Reform Act of 1995. These include statements regarding CBRE's future growth momentum, operations, market share, business outlook, investment levels and financial performance expectations. These statements are estimates only and actual results may ultimately differ from them. Except to the extent required by applicable securities laws, we undertake no obligation to update or publicly revise any of the forwardlooking statements that you may hear today. Please refer to our third quarter earnings release, furnished on Form 8-K, our most recent annual report filed on Form 10-K and our most recent quarterly report filed on Form 10-Q, and in particular any discussion of risk factors or forward-looking statements therein, which are available on the SEC's website (www.sec.gov), for a full discussion of the risks and other factors that may impact any forward-looking statements that you may hear today. We may make certain statements during the course of this presentation, which include references to "non-GAAP financial" measures," as defined by SEC regulations. Where required by these regulations, we have provided reconciliations of these measures to what we believe are the most directly comparable GAAP measures, which are attached hereto within the appendix.

## **CONFERENCE CALL PARTICIPANTS**

# **Bob Sulentic**

PRESIDENT AND
CHIEF EXECUTIVE OFFICER

# **Jim Groch**

CHIEF FINANCIAL OFFICER AND HEAD OF CORPORATE DEVELOPMENT

## **Brad Burke**

**INVESTOR RELATIONS** 

## **Q3 2018 OVERVIEW**

- Double-digit revenue and adjusted EPS¹ growth
  - Double-digit leasing revenue growth across all three regions
  - Occupier outsourcing fee revenue<sup>2</sup> up 16%
  - Particularly strong quarter for development services
- Expect significant reorganization to positively affect performance, both qualitatively and quantitatively
- Launched Hana designed to meet rapidly growing demand for flexible office space solutions

## **Q3 2018 FINANCIAL RESULTS**

- Fee revenue<sup>1</sup> up 13% in USD and 14% local currency
- Adjusted EPS<sup>2</sup> growth of 22%
- Regional services fee revenue growth of 13% in USD, Adjusted EBITDA<sup>3</sup> growth of 6% in USD
  - Incremental investments drove majority of margin<sup>4</sup> decline
  - Excluding these investments, adjusted EBITDA would have grown faster than fee revenue
  - FX volatility and M&A drove approx. 40bps of margin⁴ decline
- Continue to expect positive operating leverage in regional services business in 2019
- Continue to expect record adjusted net income margin<sup>5</sup> for full-year 2018

## **Q3 2018 BUSINESS LINE REVENUE**

# CONTRACTUAL REVENUE AND LEASING, WHICH IS LARGELY RECURRING OVER TIME<sup>1</sup>, IS 75% OF FEE REVENUE

(\$ in millions)

		Contractual	Revenue Sou	urces		Leasing	Capita	al Markets	Other		
	Occupier Outsourcing <sup>2</sup>	Property Management <sup>2</sup>	Investment Management	Valuation	Loan Servicing	Leasing	Sales	Commercial Mortgage Origination	Development Services	Other	Total
Revenue											
Q3 2018	\$ 3,215	\$ 303	\$ 93	\$ 135	\$ 46	\$ 823	\$ 473	\$ 132	\$ 21	\$ 20	\$ 5,261
Fee Rever	nue³										
Q3 2018	\$ 730	\$ 148 <b>75</b>	\$ 93 % of total fee	\$ 135 revenue	\$ 46	\$ 823	\$ 473	\$ 132	\$ 21	\$ 20	\$ 2,621
% of Q3 20 Total Fee Revenue	28%	6%	3%	5%	2%	31%	18%	5%	1%	1%	100%
Fee Rever	nue Growth R	ate (Change Q	3 2018-over-0	Q3 2017)							
USD	<b>1</b> 5%	<b>A</b> 7%	<b>1</b> %	<b>A</b> 6%	<b>1</b> 21%	<b>1</b> 7%	<b>1</b> 4%	<b>1</b> 22%	<b>▲</b> 63%	<b>▼</b> -12%	<b>1</b> 3%
Local Currency	y 🛕 16%	▲ 8%	<b>1</b> %	<b>1</b> 7%	<b>1</b> 21%	<b>1</b> 8%	<b>\$</b> 5%	<b>1</b> 22%	<b>6</b> 3%	<b>▼</b> -11%	<b>1</b> 4%

See slide 25 for footnotes.

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## **OCCUPIER OUTSOURCING**

2018 TOTAL CONT	RACTS*		
_	Q3	YTD	
New	40	117	
Expansions	82	197	
Renewals	28	89	

<sup>\*</sup>Does not include contracts from the Heery business acquired in Q4 2017

#### **HIGHLIGHTS**

- Fee revenue<sup>1</sup> growth of 16% reflects strong momentum
- Active quarter of client wins and expansions
- Lincoln Rackhouse highlights CBRE's continued growth in management of critical facilities
- CBRE manages 75 million SF of data centers globally

Q3 2018 Representative Clients

**Facilities Management** 

**Transaction Services** 

**Project Management** 







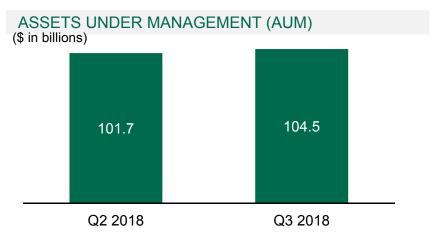


See slide 25 for footnotes.

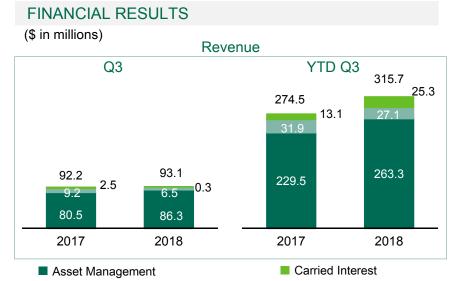
## **GLOBAL INVESTMENT MANAGEMENT**



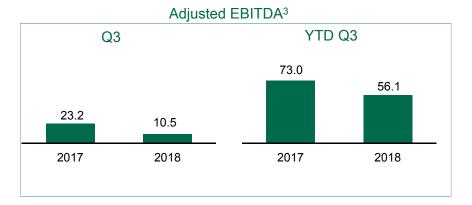
- Capital to deploy: approximately \$6.9 billion<sup>2</sup>
- Co-Investment: \$168.6 million<sup>2</sup>



 AUM is up \$2.8 billion in USD from Q3 2017 (up \$3.3 billion in local currency)

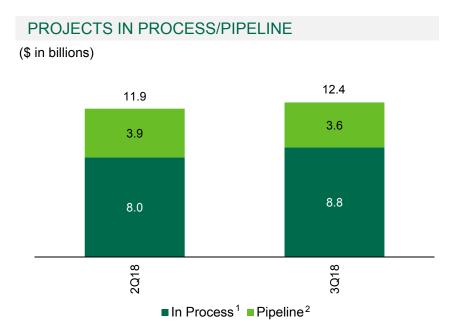


Acquisition, Disposition, Incentive & Other



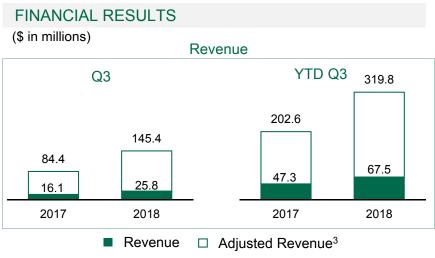
See slide 25 for footnotes.

## **DEVELOPMENT SERVICES**

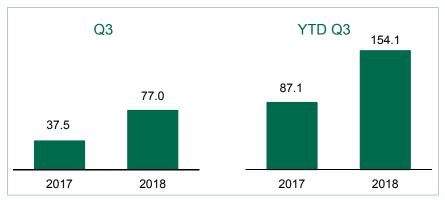




 \$8.1 million in repayment guarantees on outstanding debt balances at the end of Q3 2018



#### Adjusted EBITDA

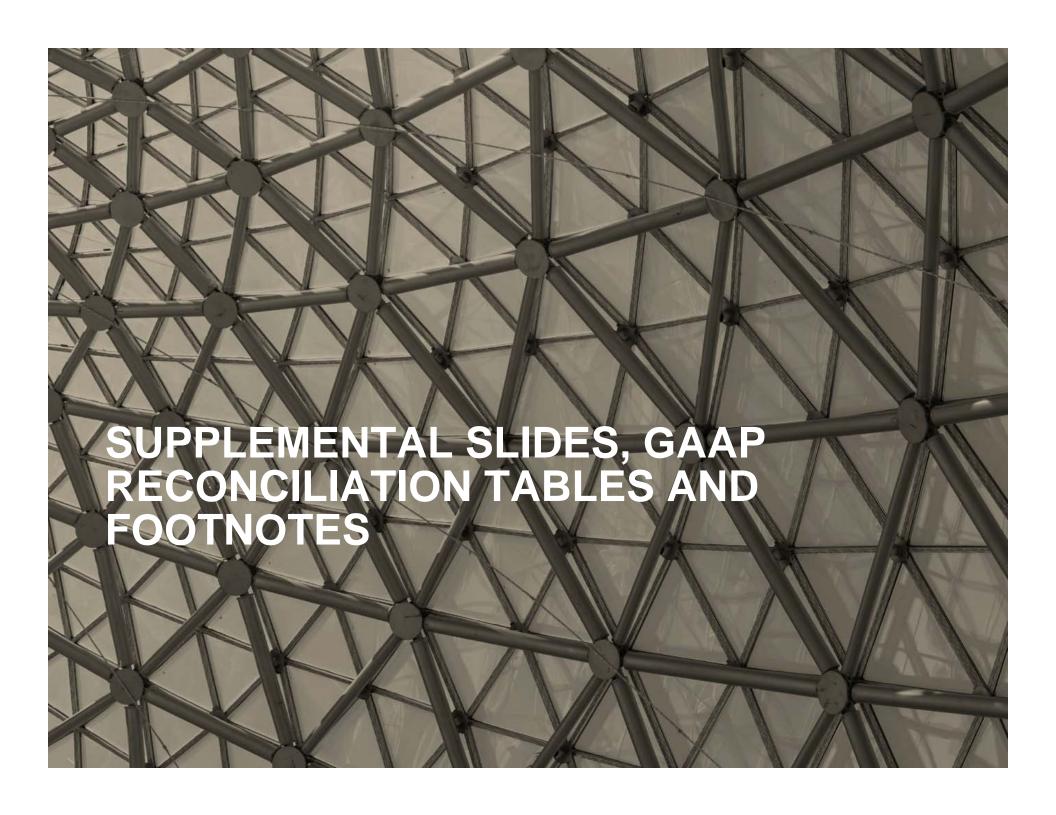


See slide 25 for footnotes.

### **SUMMARY**

**CBRE** 

- CRE fundamentals resilient in the face of higher interest rates
- Ample debt and equity capital available for CRE
- No meaningful increase in cap rates
- Trade tension does not appear to be impacting overall business
- Continued escalation could impact sentiment, most notably in Asia
- Expect full year adjusted EPS at high end of range, which we increased last quarter to \$3.10 to \$3.20

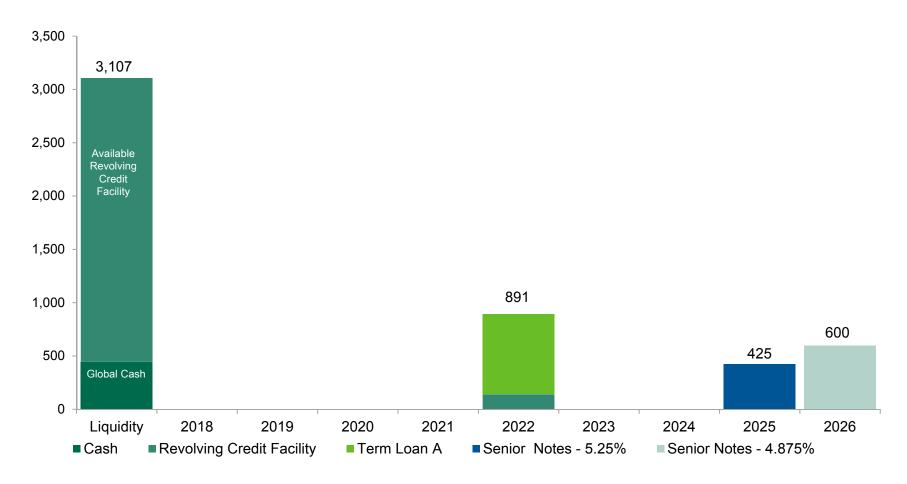


## MANDATORY AMORTIZATION AND MATURITY SCHEDULE

AS OF SEPTEMBER 30, 20181

(\$ in millions)

**CBRE** 



1. \$2,800 million revolving credit facility matures in October 2022. As of September 30, 2018, the revolving credit facility balance was \$141 million.

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#### **DEBT & LEVERAGE**

(\$ in millions)	September 30, 2018
Cash <sup>1</sup>	\$ 450
Revolving credit facility	141
Senior term loans <sup>2</sup>	744
Senior notes <sup>2</sup>	1,015
Other debt <sup>3,4</sup>	5
Total debt	\$ 1,905
Total net debt <sup>5</sup>	\$ 1,455
TTM Adjusted EBITDA <sup>6</sup>	\$ 1,820
Net debt to TTM Adjusted EBITDA	0.80x

- 1. Excludes \$100.0 million of cash in consolidated funds and other entities not available for company use at September 30, 2018.
- 2. Outstanding amount is reflected net of unamortized debt issuance costs.
- 3. Excludes \$1,579.7 million of warehouse facilities for loans originated on behalf of the FHA and other government sponsored enterprises outstanding at September 30, 2018, which are non-recourse to CBRE Group, Inc.
- 4. Excludes non-recourse notes payable on real estate, net of unamortized debt issuance costs, of \$5.2 million at September 30, 2018.
- 5. Total net debt is calculated as total debt (excluding non-recourse debt) less cash available for company use, as disclosed above.
- 6. Adjusted EBITDA excludes (from EBITDA) the impact of a one-time non-cash gain associated with remeasuring CBRE's investment in an unconsolidated subsidiary in New England to fair value as of the date it acquired the remaining controlling interest, reorganization expenses, costs incurred in connection with a litigation settlement, integration and other costs related to acquisitions, and certain carried interest incentive compensation reversal to align with the timing of associated revenue.

## **AMERICAS REVENUE**

#### Q3 2018 FEE REVENUE UP 14% IN USD AND LOCAL CURRENCY

		Con	tractual Re	venue So	urces					
(\$ in millions)	Occupier Outsourcing <sup>1</sup>		Property Management <sup>1</sup>		Valuation	Loan Servicing	Leasing	Sales	Commercial Mortgage Origination	Other
	Gross	Fee <sup>2</sup>	Gross	Fee <sup>2</sup>						
Q3 2018	\$ 1,965	\$ 321	\$ 172	\$ 79	\$ 65	\$ 44	\$ 598	\$ 295	\$ 130	\$ 12
Q3 2017	\$ 1,764	\$ 274	\$ 163	\$ 70	\$ 59	\$ 36	\$ 506	\$ 290	\$ 107	\$ 14
USD <sup>3</sup>	▲ 11%	▲ 17%	▲ 6%	▲ 12%	▲ 9%	▲ 22%	▲ 18%	▲ 2%	▲ 22%	▼ -15%
Local Currency <sup>3</sup>	<b>▲</b> 12%	▲ 18%	▲ 6%	<b>▲</b> 13%	<b>1</b> 0%	<b>▲</b> 22%	▲ 19%	<b>▲</b> 2%	<b>▲</b> 22%	▼ -14%

<sup>1.</sup> Occupier Outsourcing and Property Management revenue excludes associated leasing and sales revenue, most of which is contractual.

<sup>2.</sup> Fee revenue is gross revenue less both client reimbursed costs largely associated with employees that are dedicated to client facilities and subcontracted vendor work performed for clients.

<sup>3.</sup> Growth rate for Q3 2018 versus Q3 2017.

## **EMEA REVENUE**

#### Q3 2018 FEE REVENUE UP 15% IN USD AND LOCAL CURRENCY

		Con	tractual Re	venue So	urces						
(\$ in millions)	Occupier Outsourcing <sup>1</sup>		Property Management <sup>1</sup>		Loan Valuation Servicing		Leasing Sale		Commercial Mortgage Origination	Other	
	Gross	Fee <sup>2</sup>	Gross	Fee <sup>2</sup>	•						
Q3 2018	\$ 993	\$ 338	\$ 59	\$ 44	\$ 43	\$ 2	\$ 123	\$ 104	\$ 1	\$ 6	
Q3 2017	\$ 787	\$ 295	\$ 63	\$ 43	\$ 39	\$ 2	\$ 105	\$ 84	\$ 1	\$ 7	
USD <sup>3</sup>	▲ 26%	▲ 15%	▼ -5%	<b>▲</b> 2%	▲ 9%	▲ 3%	<b>▲</b> 17%	<b>▲</b> 24%	▼ -34%	▼ -17%	
Local Currency <sup>3</sup>	<b>▲</b> 27%	<b>▲</b> 15%	<b>▼</b> -4%	<b>▲</b> 2%	▲10%	▲ 3%	<b>▲</b> 18%	<b>▲</b> 24%	▼ -33%	▼ -17%	

<sup>1.</sup> Occupier Outsourcing and Property Management revenue excludes associated leasing and sales revenue, most of which is contractual.

<sup>2.</sup> Fee revenue is gross revenue less both client reimbursed costs largely associated with employees that are dedicated to client facilities and subcontracted vendor work performed for clients.

<sup>3.</sup> Growth rate for Q3 2018 versus Q3 2017.

# **ASIA PACIFIC REVENUE**

#### Q3 2018 FEE REVENUE UP 4% IN USD OR 8% IN LOCAL CURRENCY

		Contractu	ıal Revenue	e Sources					
(\$ in millions)	Occı Outsoı	-	Property Management <sup>1</sup>		Valuation	Leasing	Sales	Commercial Mortgage Origination	Other
	Gross	Fee <sup>2</sup>	Gross	Fee <sup>2</sup>					
Q3 2018	\$ 257	\$ 72	\$ 69	\$ 23	\$ 27	\$ 99	\$ 74	\$ 1	\$ 3
Q3 2017	\$ 241	\$ 63	\$ 61	\$ 22	\$ 29	\$ 89	\$ 81	\$ 1	\$ 2
USD <sup>3</sup>	▲ 7%	▲ 13%	▲ 14%	▲ 2%	▼-6%	▲ 12%	▼ -9%	▲ 55%	▲ 29%
Local Currency <sup>3</sup>	▲ 10%	<b>▲</b> 16%	▲ 18%	<b>▲</b> 6%	▼-1%	<b>▲</b> 16%	▼ -5%	<b>▲</b> 67%	▲ 30%

<sup>1.</sup> Occupier Outsourcing and Property Management revenue excludes associated leasing and sales revenue, most of which is contractual.

<sup>2.</sup> Fee revenue is gross revenue less both client reimbursed costs largely associated with employees that are dedicated to client facilities and subcontracted vendor work performed for clients.

<sup>3.</sup> Growth rate for Q3 2018 versus Q3 2017.

# **OTHER FINANCIAL METRICS**

			Th	ree Months End	ed		
	March 31,	June 30,	September 30,	December 31,	March 31,	June 30,	September 30,
(\$ in millions)	2017	2017	2017	2017	2018	2018	2018
OMSR Gains	27,976	32,592	35,448	49,087	32,117	39,237	45,623
Amortization	(22,337)	(24,412)	(25,759)	(26,051)	(26,892)	(26,623)	(30,279)
(\$ in millions)	Q3 2018 over Q3 2017	YTD Q3 2018 over YTD Q3 2017	-				
OMSR Gains	10,175	20,961	-				
Amortization	4,522	11,288					
			Th	ree Months End	ed		
	March 31,	June 30,	September 30,	December 31,	March 31,	June 30,	September 30,
(\$ in billions)	2017	2017	2017	2017	2018	2018	2018
Loan Servicing Balance	149.8	154.6	165.3	174.3	183.5	187.8	195.6

### NON-GAAP FINANCIAL MEASURES

The following measures are considered "non-GAAP financial measures" under SEC guidelines:

- i. fee revenue
- ii. organic fee revenue (which we also refer to as fee revenue excluding M&A contributions)
- iii. contractual fee revenue
- iv. net income attributable to CBRE Group, Inc., as adjusted (which we also refer to as "adjusted net income")
- v. diluted income per share attributable to CBRE Group, Inc. shareholders, as adjusted (which we also refer to as "adjusted earnings per share" or "adjusted EPS")
- vi. EBITDA and adjusted EBITDA

These measures are not recognized measurements under United States generally accepted accounting principles, or "GAAP." When analyzing our operating performance, investors should use them in addition to, and not as an alternative for, their most directly comparable financial measure calculated and presented in accordance with GAAP. Because not all companies use identical calculations, our presentation of these measures may not be comparable to similarly titled measures of other companies.

Our management generally uses these non-GAAP financial measures to evaluate operating performance and for other discretionary purposes. The company believes that these measures provide a more complete understanding of ongoing operations, enhance comparability of current results to prior periods and may be useful for investors to analyze our financial performance because they eliminate the impact of selected charges that may obscure trends in the underlying performance of our business. The company further uses certain of these measures, and believes that they are useful to investors, for purposes described below.

With respect to fee revenue: the company believes that investors may find this measure useful to analyze the financial performance of our Occupier Outsourcing and Property Management business lines and our business generally. Fee revenue excludes costs reimbursable by clients, and as such provides greater visibility into the underlying performance of our business. Organic fee revenue for the three months ended September 30, 2018 further excludes contributions from all acquisitions completed after the third quarter of 2017.

With respect to contractual fee revenue: the company believes that investors may find this measure useful to analyze our overall financial performance because it identifies revenue streams that are typically more stable over time.

With respect to adjusted net income, adjusted EPS, EBITDA and adjusted EBITDA: the company believes that investors may find these measures useful in evaluating our operating performance compared to that of other companies in our industry because their calculations generally eliminate the accounting effects of acquisitions, which would include impairment charges of goodwill and intangibles created from acquisitions—and in the case of EBITDA and adjusted EBITDA—the effects of financings and income tax and the accounting effects of capital spending. All of these measures may vary for different companies for reasons unrelated to overall operating performance. In the case of EBITDA and adjusted EBITDA, these measures are not intended to be measures of free cash flow for our management's discretionary use because they do not consider cash requirements such as tax and debt service payments. The EBITDA and adjusted EBITDA measures calculated herein may also differ from the amounts calculated under similarly titled definitions in our credit facilities and debt instruments, which amounts are further adjusted to reflect certain other cash and non-cash charges and are used by us to determine compliance with financial covenants therein and our ability to engage in certain activities, such as incurring additional debt and making certain restricted payments. The company also uses adjusted EBITDA and adjusted EPS as significant components when measuring our operating performance under our employee incentive compensation programs.

# RECONCILIATION OF ADJUSTED EBITDA TO EBITDA TO NET INCOME

	Three Months Ended September 30,				Nine Months Ended September 30,				Er	Months ded mber 30,	
(\$ in millions)	2	018	2017		2018		2017		2	2018	
Net income attributable to CBRE Group, Inc.	\$	290.4	\$	199.1	\$	669.4	\$	537.9	\$	828.6	
Add:											
Depreciation and amortization		113.5		102.6		335.1		297.0		444.2	
Interest expense		26.6		34.5		82.4		103.9		115.3	
Write-off of financing costs on extinguished debt		-		-		28.0		-		28.0	
Provision for income taxes		94.9		77.1		211.4		200.8		478.4	
Less:											
Interest income		1.1		3.3		6.3		7.0		9.2	
EBITDA	\$	524.3	\$	410.0	\$	1,320.0	\$	1,132.6	\$	1,885.3	
Adjustments:											
One-time gain associated with remeasuring an investment in an unconsolidated subsidiary to fair value as of the date the remaining controlling interest was acquired		(92.6)		-		(92.6)		-		(92.6)	
Reorganization expenses		12.7		-		12.7		-		12.7	
Costs incurred in connection with litigation settlement		8.8		-		8.8		-		8.8	
Carried interest incentive compensation expense (reversal) to align with the timing of associated revenue		4.0		5.2		(4.5)		(12.8)		(0.1)	
Integration and other costs related to acquisitions		6.1				6.1		27.3		6.1	
Adjusted EBITDA	\$	463.3	\$	415.2	\$	1,250.5	\$	1,147.1	\$	1,820.2	
CBRE			19		С	BRE GROUP, II	۷C.   Q3	3 2018 EARNING	GS CONFEREN	ICE CALL	

# RECONCILIATION OF NET INCOME TO ADJUSTED NET INCOME AND ADJUSTED EARNINGS PER SHARE

	Th	ree Montl Septemb			Ni	ne Month Septemb		
(\$ in millions, except per share amounts)	2	018	2017		2018		2017	
Net income attributable to CBRE Group, Inc.	\$	290.4	\$	199.1	\$	669.4	\$	537.9
One-time gain associated with remeasuring an investment in an unconsolidated subsidiary to fair value as of the date the remaining controlling interest was acquired		(92.6)		-		(92.6)		-
Non-cash depreciation and amortization expense related to certain assets attributable to acquisitions		28.2		28.2		86.6		82.5
Write-off of financing costs on extinguished debt		-		-		28.0		-
Reorganization expenses		12.7		-	12.7		,	
Costs incurred in connection with litigation settlement		8.8		-		8.8		-
Carried-interest incentive compensation expense (reversal) to align with the timing of associated revenue		4.0		5.2		(4.5)		(12.8)
Integration and other costs related to acquisitions		6.1		-		6.1		27.3
Tax impact of adjusted items		12.3		(10.3)		(6.3)		(33.5)
Impact of U.S. tax reform		-		-		0.5		-
Adjusted net income	\$	269.9	\$	222.2	\$	708.7	\$	601.4
Adjusted diluted earnings per share	\$	0.79	\$	0.65	\$	2.06	\$	1.77
Weighted average shares outstanding for diluted income per share	343	3,733,947	341,	186,431		,267,240	,	502,432

# RECONCILIATION OF REVENUE TO FEE REVENUE, CONTRACTUAL FEE REVENUE AND ORGANIC FEE REVENUE

	Three Months Ended	September 30,
(\$ in millions)	2018	2017
Consolidated revenue	\$ 5,261.0	\$ 4,638.6
Less:		
Client reimbursed costs largely associated with employees dedicated to client facilities and subcontracted vendor work		
performed for clients	2,640.0	2,310.2
Consolidated fee revenue	\$ 2,621.0	\$ 2,328.4
Less: Non-contractual fee revenue	1,468.6	1,300.4
Contractual fee revenue	\$ 1,152.4	\$ 1,028.0
Consolidated fee revenue	\$ 2,621.0	
Less:		
Acquisitions	(79.0)	
Organic fee revenue	\$ 2,542.0	

# **RECONCILIATION OF REVENUE TO FEE REVENUE**

	Three Moi	Septemb	er 30,	
(\$ in millions)	2018	2017		
Occupier Outsourcing revenue <sup>1</sup> Less: Client reimbursed costs largely associated with employees dedicated to client facilities and subcontracted vendor work performed for clients	\$	3,214.8 2,484.7	\$	2,792.2
Occupier Outsourcing fee revenue <sup>1</sup>	\$	· · · · · · · · · · · · · · · · · · ·	\$	632.2
Property Management revenue <sup>1</sup> Less: Client reimburged costs largely associated with employees	\$	303.5	\$	288.5
Client reimbursed costs largely associated with employees dedicated to client facilities and subcontracted vendor work performed for clients		155.3		150.2
Property Management fee revenue <sup>1</sup>	\$	148.2	\$	138.3

<sup>1.</sup> Occupier Outsourcing and Property Management revenue excludes associated leasing and sales revenue, most of which is contractual.

# DEVELOPMENT SERVICES RECONCILIATION OF REVENUE TO ADJUSTED REVENUE

	Three Mer	the Ended	Santamb	or 20	Nine Months Ended September 30,					
	Three Moi	nths Ended	Septemb	er 30,	wifie worths Ended September 30,					
(\$ in millions)	2018	3	2017		2018		2017	·		
Revenue	\$	25.8	\$	16.1	\$	67.5	\$	47.3		
Add:										
Equity income from unconsolidated subsidiaries		119.4		62.2		240.0		136.5		
Gain on disposition of real estate		0.2		6.2		12.5		18.9		
Less:										
Non-controlling interest		-		0.1		0.2		0.1		
Adjusted Revenue	\$	145.4	\$	84.4	\$	319.8	\$	202.6		

#### **FOOTNOTES**

Notes – In the first quarter of 2018, the company adopted new revenue recognition guidance. Certain restatements have been made to 2017 financial statements (and thus 2017 financial information included in this presentation) to conform with the 2018 presentation. This impacts slides 4, 5, 6, 7, 8, 9, 13, 14, 15, 16, 19, 20, 21, and 23. Local currency percent changes versus prior year is a non-GAAP measure noted on slides 4, 5, 6, 7, 8, 14, 15, and 16. These percent changes are calculated by comparing current year results at prior year exchange rates versus prior year results. We have not reconciled the (non-GAAP) adjusted earnings per share guidance and adjusted net income margin guidance referenced in this presentation to the most directly comparable GAAP measure because this cannot be done without unreasonable effort due to the variability and low visibility with respect to items related to acquisitions, reorganization costs, carried interest incentive compensation and financing costs, which are potential adjustments to future earnings. We expect the variability of these items to have a potentially unpredictable, and a potentially significant, impact on our future GAAP financial results.

#### Slide 4

- 1. Adjusted EPS excludes a one-time non-cash gain associated with remeasuring CBRE's investment in an unconsolidated subsidiary in New England to fair value as of the date it acquired the remaining controlling interest, depreciation and amortization expense related to certain assets attributable to acquisitions, integration and other costs related to acquisitions, reorganization expenses, costs incurred in connection with a litigation settlement, and adjusts certain carried interest incentive compensation expense to align with the timing of associated revenue as well as adjusts the provision for income taxes for such charges. All EPS information is based on diluted shares.
- 2. Fee revenue is gross revenue less both client reimbursed costs largely associated with employees that are dedicated to client facilities and subcontracted vendor work performed for clients.

#### Slide 5

- 1. Fee revenue is gross revenue less both client reimbursed costs largely associated with employees that are dedicated to client facilities and subcontracted vendor work performed for clients.
- 2. Adjusted EPS excludes a one-time non-cash gain associated with remeasuring CBRE's investment in an unconsolidated subsidiary in New England to fair value as of the date it acquired the remaining controlling interest, depreciation and amortization expense related to certain assets attributable to acquisitions, integration and other costs related to acquisitions, reorganization expenses, costs incurred in connection with a litigation settlement, and adjusts certain carried interest incentive compensation expense to align with the timing of associated revenue as well as adjusts the provision for income taxes for such charges. All EPS information is based on diluted shares.
- 3. Adjusted EBITDA excludes the impact of a one-time non-cash gain associated with remeasuring CBRE's investment in an unconsolidated subsidiary in New England to fair value as of the date it acquired the remaining controlling interest, reorganization expenses, costs incurred in connection with a litigation settlement, and integration and other costs related to acquisitions.
- 4. Margin referenced is calculated based on adjusted EBITDA divided by fee revenue.
- 5. Adjusted net income margin is calculated as adjusted net income divided by fee revenue.

### **FOOTNOTES**

#### Slide 6

- 1. Contractual revenue refers to revenue derived from our Occupier Outsourcing, Property Management, Investment Management, Valuation and Loan Servicing businesses. We regard leasing revenue as largely recurring over time because unlike most other transaction businesses, leasing activity normally takes place when leases expire. The average lease expires in five to six years. This means that, on average, in a typical year approximately 17% to 20% of leases roll over and a new leasing decision must be made. When a lease expires in the ordinary course, we expect it to be renewed, extended or the tenant to vacate the space to lease another space in the market. In each instance, a transaction is completed. If there is a downturn in economic activity, some tenants may seek a short term lease extension, often a year, before making a longer term commitment. In this scenario, that delayed leasing activity tends to be stacked on top of the normal activity in the following year. Thus, we characterize leasing as largely recurring over time because we expect an expiration of a lease, in the ordinary course, to lead to an opportunity for a leasing commission from such completed transaction even if delayed by a year or two during an economic downturn.
- 2. Occupier Outsourcing and Property Management revenue excludes associated leasing and sales revenue, most of which is contractual.
- 3. Fee revenue is gross revenue less both client reimbursed costs largely associated with employees that are dedicated to client facilities and subcontracted vendor work performed for clients.

#### Slide 7

1. Fee revenue is gross revenue less both client reimbursed costs largely associated with employees that are dedicated to client facilities and subcontracted vendor work performed for clients.

#### Slide 8

- 1. Excludes securities business.
- 2. As of September 30, 2018.
- 3. Adjusted EBITDA excludes (from EBITDA) reorganization expenses and certain carried interest incentive compensation expense (reversal) to align with the timing of associated revenue.

#### Slide 9

- 1. In Process figures include Long-Term Operating Assets (LTOA) of \$0.1 billion for 3Q 18 and \$0.1 billion for 2Q 18. LTOA are projects that have achieved a stabilized level of occupancy or have been held 18-24 months following shell completion or acquisition.
- 2. Pipeline deals are projects we are pursuing which we believe have a greater than 50% chance of closing or where land has been acquired and the projected construction start is more than 12 months out.
- 3. Adjusted revenue is revenue plus equity income from unconsolidated subsidiaries and gain on disposition of real estate, net of non-controlling interests. The company believes that investors may find this measure useful to analyze the financial performance of our Development Services segment because it is more reflective of its total operations. See slide 23 for calculation.