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# CBRE GROUP, INC.

## GLOBAL MARKET LEADER IN INTEGRATED COMMERCIAL REAL ESTATE SERVICES

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June 2017

**CBRE**

A nighttime photograph of a city skyline, likely New York City, featuring the Manhattan Bridge and several illuminated skyscrapers. The lights from the buildings and bridge are reflected in the water in the foreground. The image has a blue and teal color cast.

## Forward-Looking Statements

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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, 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 forward-looking statements that you may hear today. Please refer to our first quarter earnings release, furnished on Form 8-K, our most recent quarterly report filed on Form 10-Q and our most recent annual report filed on Form 10-K, and in particular any discussion of risk factors or forward-looking statements therein, which are available on the SEC's website ([www.sec.gov](http://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.

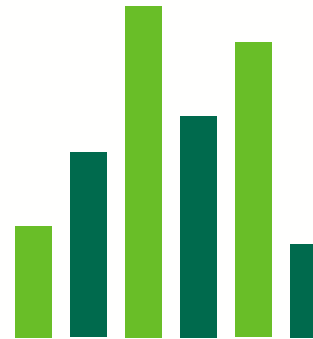
## The Global Market Leader

CBRE is the premier global provider of integrated services to commercial real estate investors and occupiers



### Global Leadership With Broad Capabilities

- #1 Leasing
- #1 Property Sales
- #1 Outsourcing
- #1 Appraisal & Valuation
- \$86.5 billion AUM Investment Management<sup>1</sup>



### Scale And Diversity

- 450+ offices worldwide<sup>2</sup>
- Serves clients in over 100 countries<sup>2</sup>
- Serves over 90% of the Fortune 100
- \$322 billion of sales and lease activity and 85,500+ transactions in 2016
- 5.3 billion square feet under management<sup>3</sup>

See slide 36 for footnotes

## The Leading Global Brand

CBRE is recognized as the foremost commercial real estate authority

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### **Barron's 500**

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- One of only two companies to be ranked in the top 12 of the Barron's 500 for three consecutive years (2014-2016)

### **Forbes**

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- Named America's 15th Best Employer (out of 500 companies) in 2016

### **Fortune**

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- Ranked among the Most Admired Companies for five consecutive years

### **Fortune 500**

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- Fortune 500 company since 2008; ranked #214 in 2017

### **International Association of Outsourcing Professionals**

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- Ranked among the top few outsourcing service providers across all industries for six consecutive years

### **S&P 500**

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- S&P 500 company since 2006

### **The Lipsey Company**

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- Ranked #1 brand for 16 consecutive years

### **Euromoney**

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- Global Real Estate Advisor of the Year five years in a row

### **Ethisphere**

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- Named a World's Most Ethical Company four years in a row

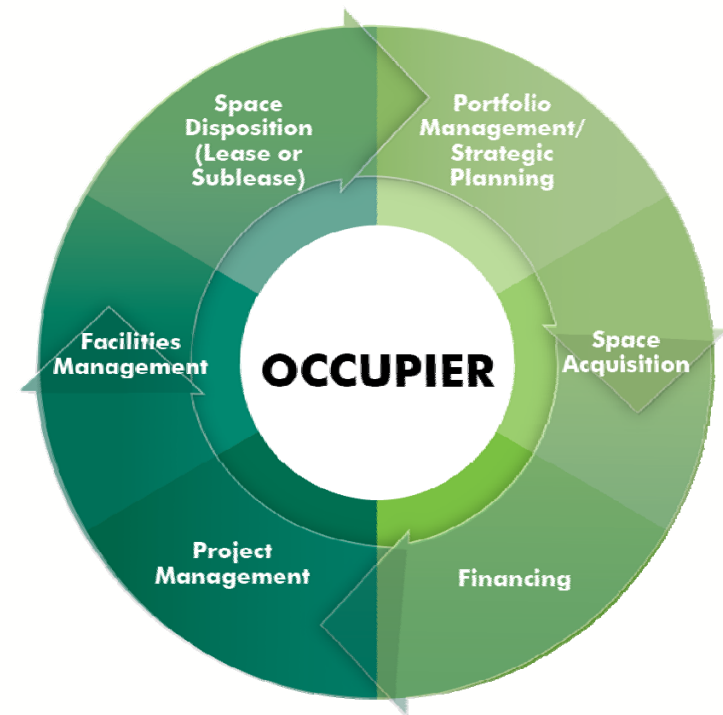
### **Dow Jones Sustainability Indices**

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- Included in DJSI North America three years in a row

## CBRE Serves Investors And Occupiers

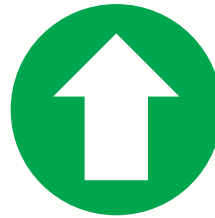
Integrated, best-in-class offering creates value for clients at every stage of the life cycle



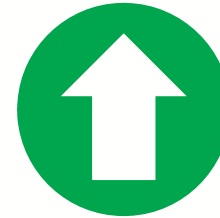
## Track Record Of Long-Term Growth

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2003 To  
TTM Q1 2017



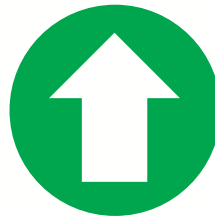
Revenue CAGR  
+16%



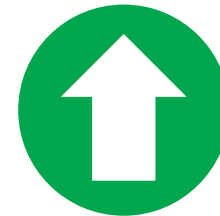
Adjusted EBITDA<sup>1</sup> CAGR  
+18%

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Q1 2016 To  
Q1 2017



Revenue  
+5%



Adjusted EPS<sup>2</sup>  
+19%

*See slide 36 for footnotes*

## Positioned For Long-Term Growth

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Capitalizing on our #1 position to further extend our competitive advantage

### Consolidation

- Leasing and capital markets service providers continue to consolidate but remain highly fragmented

### Occupier Outsourcing

- Recurring contractual revenues
- Still in early stage of penetration with occupiers
- Contributes to leasing revenues which are largely recurring over time<sup>1</sup>

### Strategic Position

- CBRE continues to enhance its market leading global position in virtually every service line
- Operating platform enhancements, particularly in technology and data analytics

See slide 36 for footnotes

## Mergers & Acquisitions

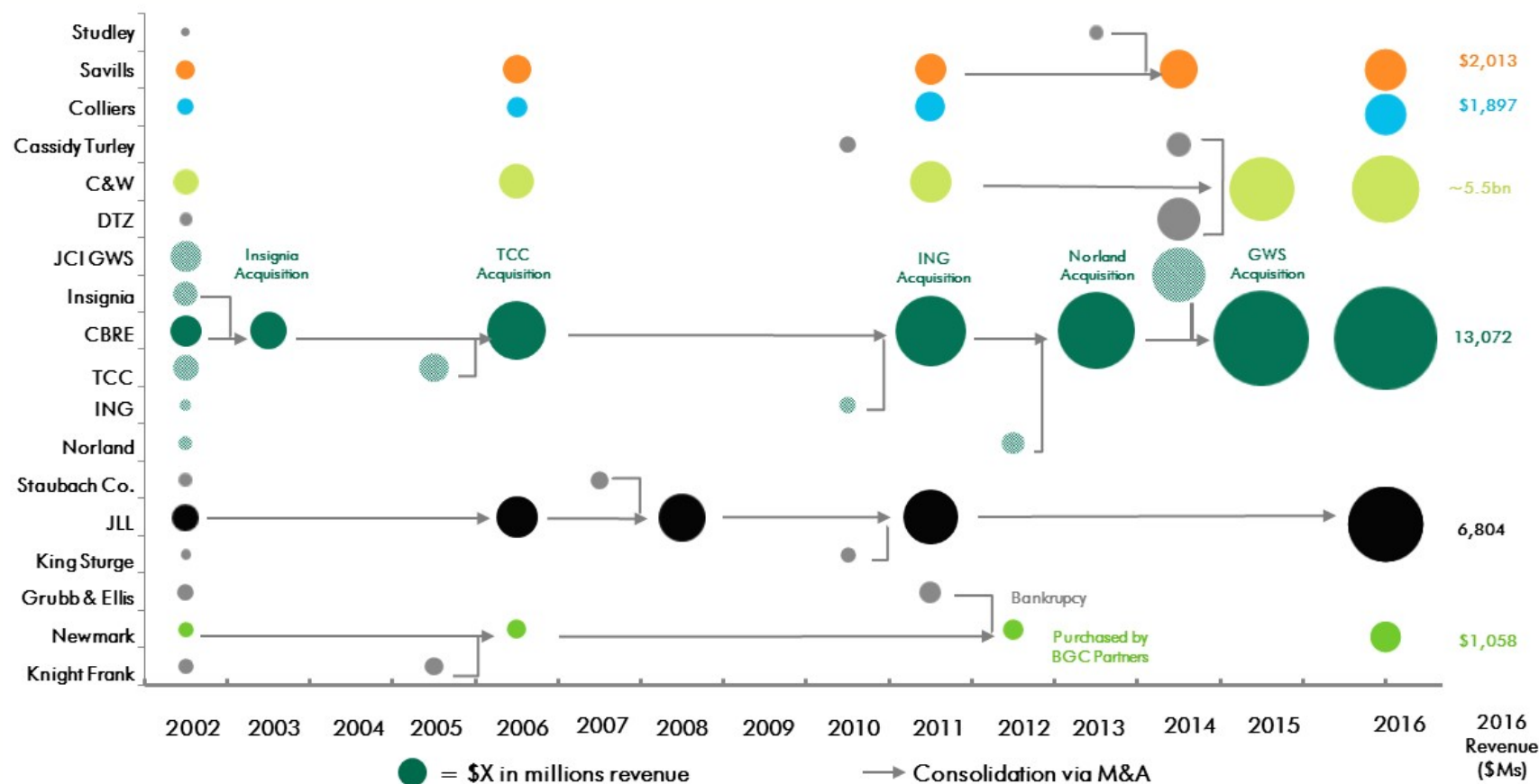
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- Transactions driven by top down macro strategy:
  - Strategic in-fill acquisitions sourced principally by lines of business
  - Highly targeted larger, transformational transactions
- Completed approximately 40 acquisitions since 2013 and over 110 since 2003, including five large, strategic acquisitions
- Proven willingness to step away when markets are frothy



## Advantaged Position in Mergers and Acquisitions

CBRE has pursued and won 5 of the 12 mergers noted below (did not bid on other 7)

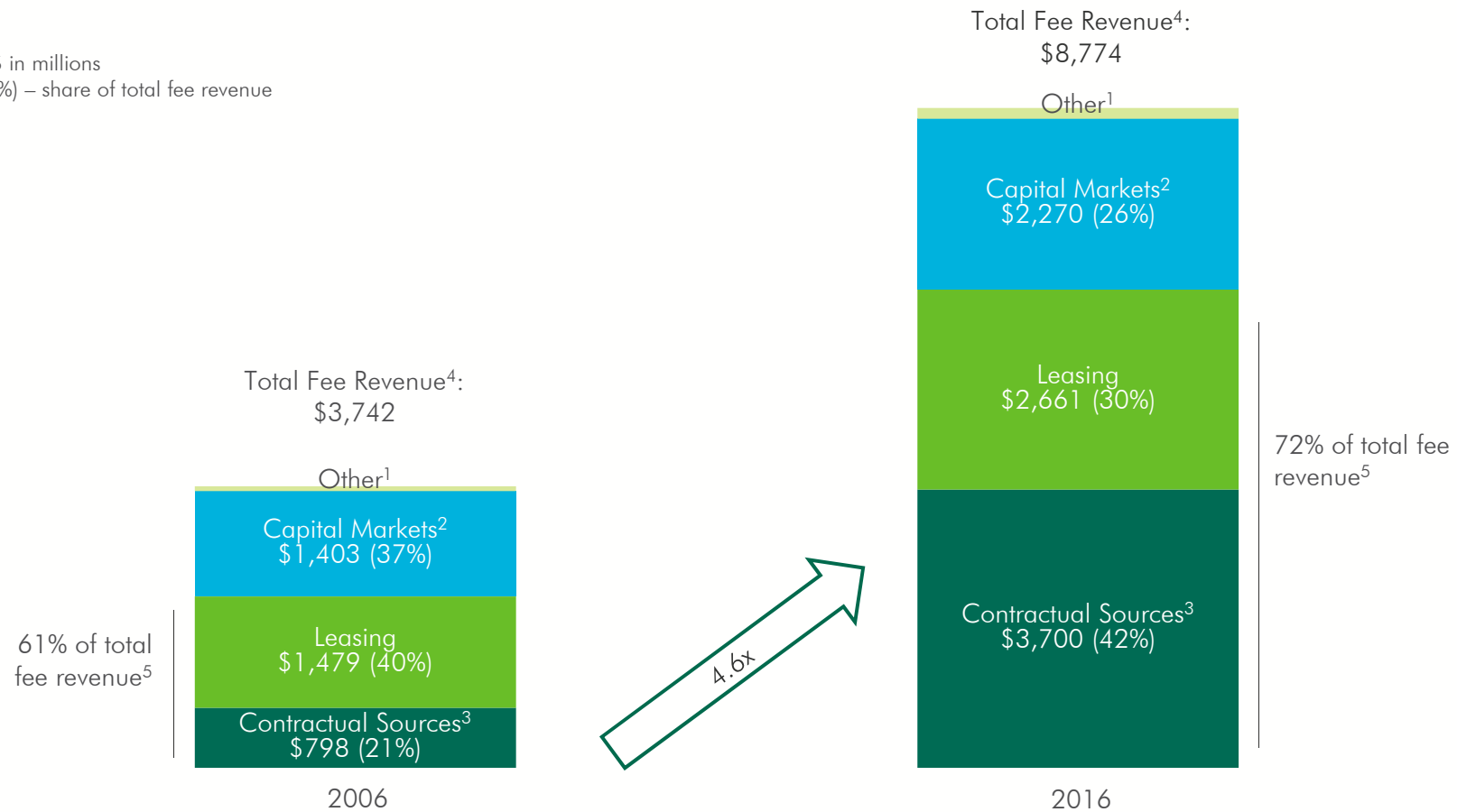


Notes: Revenues of private companies are estimated; CBRE 2015 gross revenue includes four months of actual gross revenue from the acquired GWS business while under our ownership, annualized for illustrative purposes; other public companies are as reported, with Savills revenue translated to US Dollars.

## Fee Revenue Mix (FY 2006 Versus FY 2016)

Significant growth, especially in contractual revenue

\$ in millions  
(%) – share of total fee revenue



See slide 36 for footnotes

## Q1 2017 Revenue

Contractual revenue & leasing, which is largely recurring over time<sup>1</sup>, is 74% of fee revenue

### Revenue (\$ in millions)

	Contractual Sources				Leasing	Capital Markets		Other		
	Occupier Outsourcing <sup>2</sup>	Property Management <sup>2</sup>	Investment Management	Valuation	Leasing	Sales	Commercial Mortgage Services	Development Services	Other	Total

#### Gross Revenue

Q1 2017	\$ 1,474	\$ 269	\$ 90	\$ 116	\$ 533	\$ 348	\$ 121	\$ 11	\$ 19	\$ 2,981
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#### Fee Revenue<sup>3</sup>

Q1 2017	\$ 559	\$ 124	\$ 90	\$ 116	\$ 533	\$ 348	\$ 121	\$ 11	\$ 19	\$ 1,921
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% of 2017 Total Fee Revenue	29%	6%	5%	6%	28%	18%	6%	1%	1%	100%
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74% of total fee revenue

#### Fee Revenue Growth Rate (Change Q1 2017-over- Q1 2016)

USD	▲ 4% <sup>4</sup>	▲ 6%	▼ -1%	▲ 6%	▲ 4%	▲ 5%	▲ 13%	▼ -27%	▲ 14%	▲ 5%
Local Currency	▲ 9% <sup>4</sup>	▲ 7%	▲ 3%	▲ 7%	▲ 4%	▲ 6%	▲ 14%	▼ -27%	▲ 15%	▲ 7%

See slide 37 for footnotes



## CBRE Key Takeaways

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- Operates in an industry with **strong underlying growth** dynamics
- The **global leader** across virtually all business lines
- Industry-**leading profitability**
- Leveraging **digital and data** with expertise and scale
- Has a **balanced business** with a more stable growth profile
- Is an **investment grade** company
- **18%** average annual **return on invested capital** over 4 years
- Is continuing to **extend its competitive advantage** in the marketplace

# BUSINESS LINE SLIDES

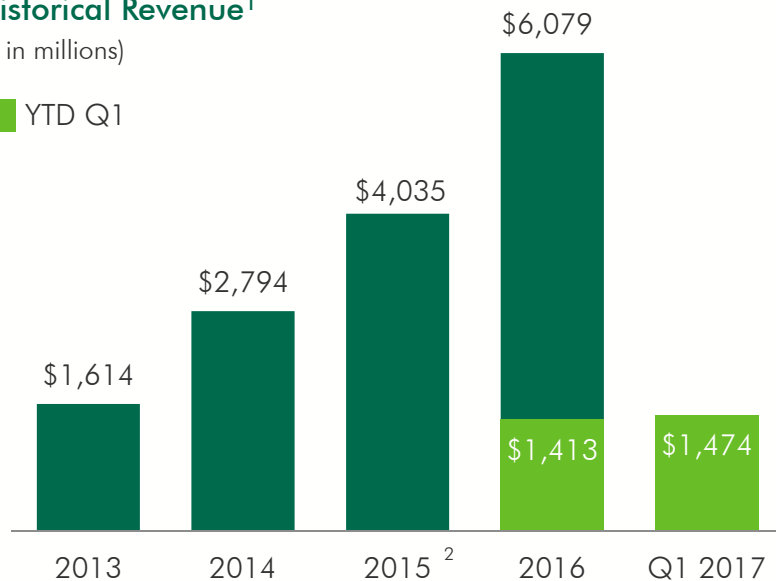
# Occupier Outsourcing

## Integrated Global Solutions for Occupiers

### Historical Revenue<sup>1</sup>

(\$ in millions)

■ YTD Q1



### 2017 Total Contracts

	Q1
New	30
Expansions	52
Renewals	27

See slide 37 for footnotes



### Overview

- Full service offering
  - Facilities Management – approximately 2.2 billion square feet globally as of 12/31/2016
  - Project Management
  - Transaction Services
  - Strategic Consulting
- Ranked among the top few outsourcing service providers across all industries for six consecutive years<sup>3</sup>

### Representative Clients

Facilities  
Management



Transaction  
Services

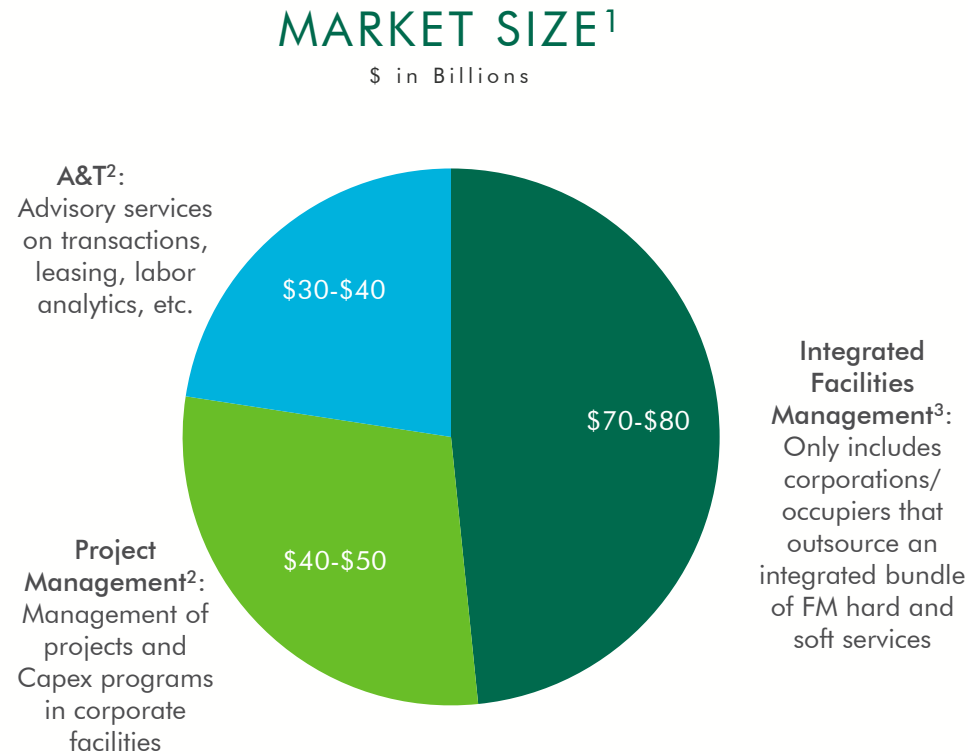


Project  
Management



# Significant Total Addressable Opportunity for Real Estate Outsourcing Services

\$140B+ Outsourcing Spend Available



1. Market size is as of 2015.

2. CBRE A&T revenue reported in leasing.

3. CBRE Integrated Facilities Management and Project Management revenue reported in Occupier Outsourcing.

Sources: CBRE and McKinsey analysis; Frost & Sullivan (Global IFM Market, March 2015); KPMG REFM Pulse Report (2015), Engineering News Record's Program Management Report (2015), Morningstar's CRE services report (2014), Emerson Power, the Uptime Institute, CoStar, IBIS World Project Management Report (2015)

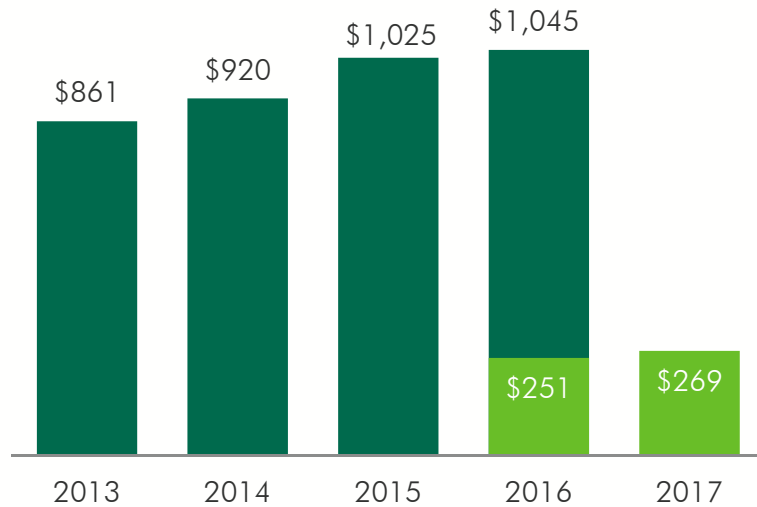
# Property Management

## Optimizing Building Operating Performance for Investors

### Historical Revenue<sup>1</sup>

(\$ in millions)

■ YTD Q1



### Overview

- Manages buildings for investors
  - Highly synergistic with property leasing
- Manages approximately 3.1 billion square feet globally as of 12/31/16<sup>2</sup>
- 300+ premier properties in major CBDs (approximately 450 million square feet)

### Selected Strategic Accounts



See slide 37 for footnotes



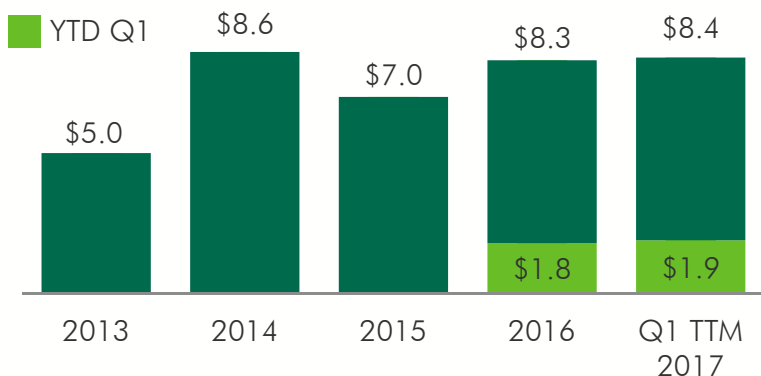


# Investment Management

## Performance Across Risk/Return Spectrum Globally

### Capital Raised<sup>1</sup>

(\$ in billions)



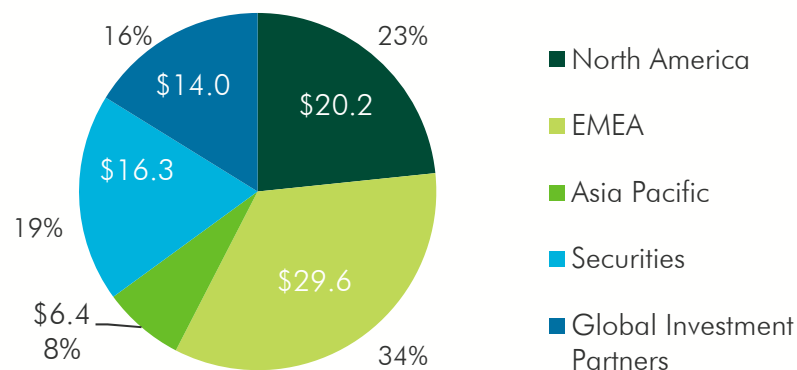
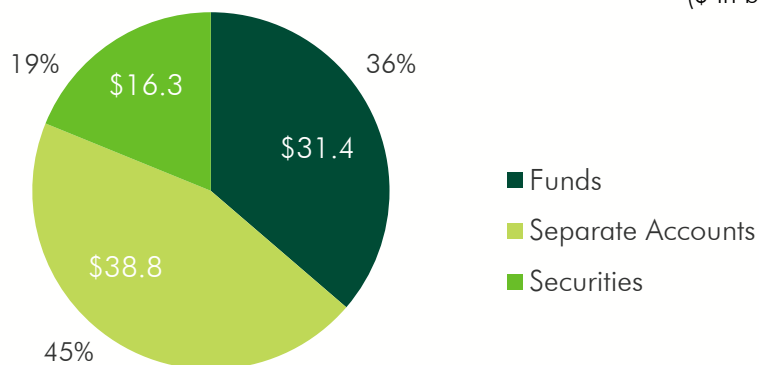
### Overview

- Performance-driven global real estate investment manager
- More than 500 institutional clients
- Equity to deploy: approx. \$5,300 million<sup>1,2</sup>
- Co-Investment: \$154.0 million<sup>2</sup>

### Assets under Management (AUM)\*

\$86.5B as of 3/31/2017

(\$ in billions)



See slide 37 for footnotes



\*Approximately 60% of total AUM (excluding securities) is located in Europe

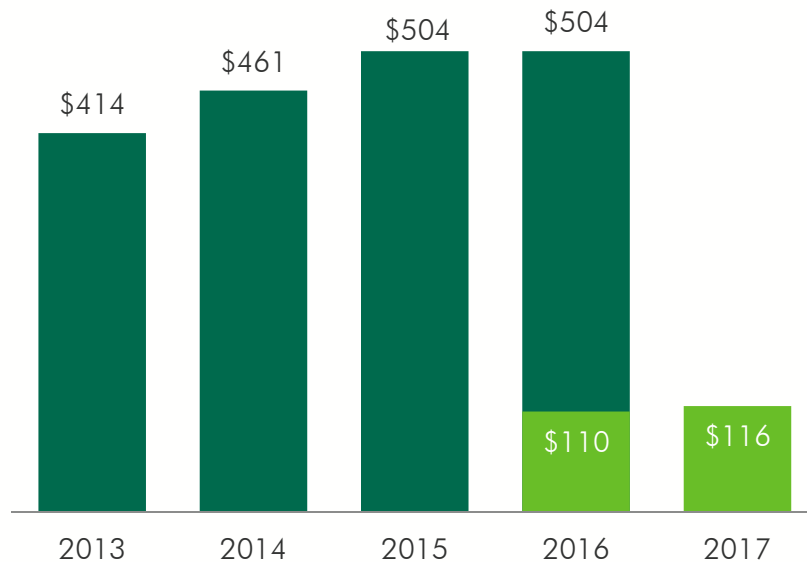
# Appraisal & Valuation

Serving Clients Globally

## Historical Revenue

(\$ in millions)

■ YTD Q1



## Overview

- Euromoney Global Valuation Advisor of the Year for five consecutive years
- Clients include lenders, life insurance companies, special servicers and REITs

## Premier Clients

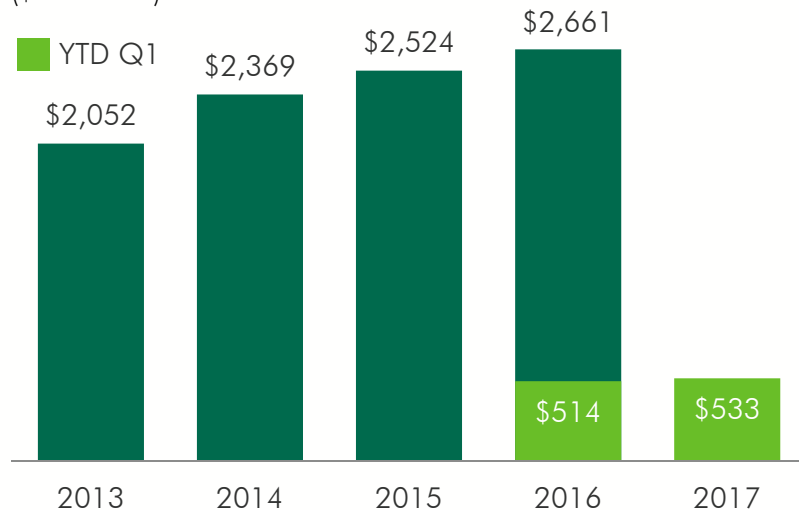


# Leasing

## Strategic Advisory and Execution

### Historical Revenue

(\$ in millions)

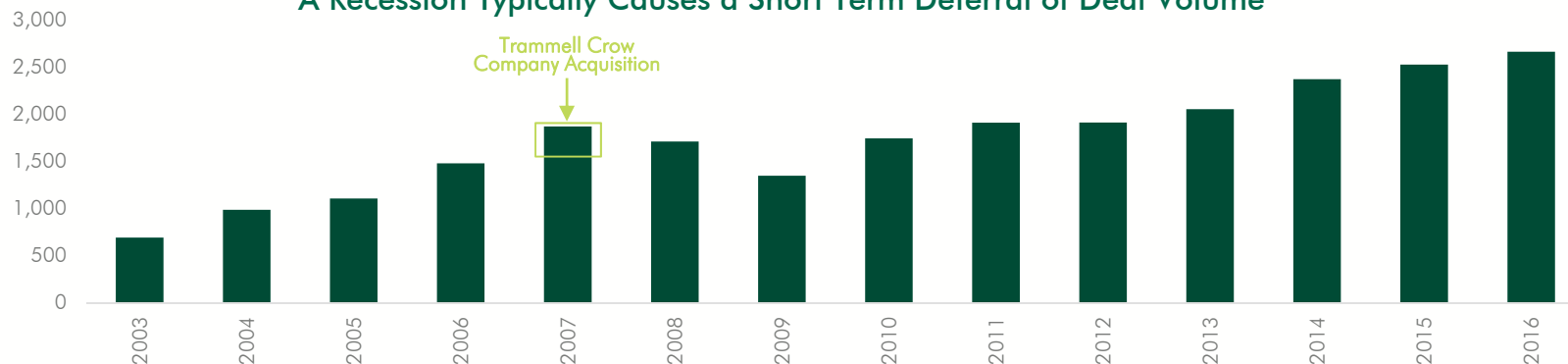


### Overview

- Advise occupiers and investors in formulating and executing leasing strategies
- Tailored service delivery by property type and industry/market specialization
- Strategic insight and high-level execution driving significant market share gains
- #1 global market position – \$110.8 billion lease volume in 2016
 

— Office:	\$74.1 billion	— Industrial:	\$17.3 billion
— Retail:	\$17.4 billion	— Other:	\$2.0 billion

### CBRE Leasing Revenue is Largely Recurring Over Time<sup>1</sup> A Recession Typically Causes a Short Term Deferral of Deal Volume

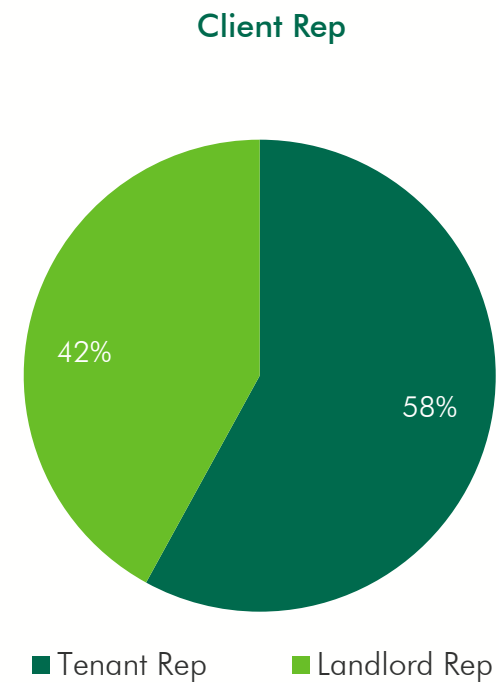
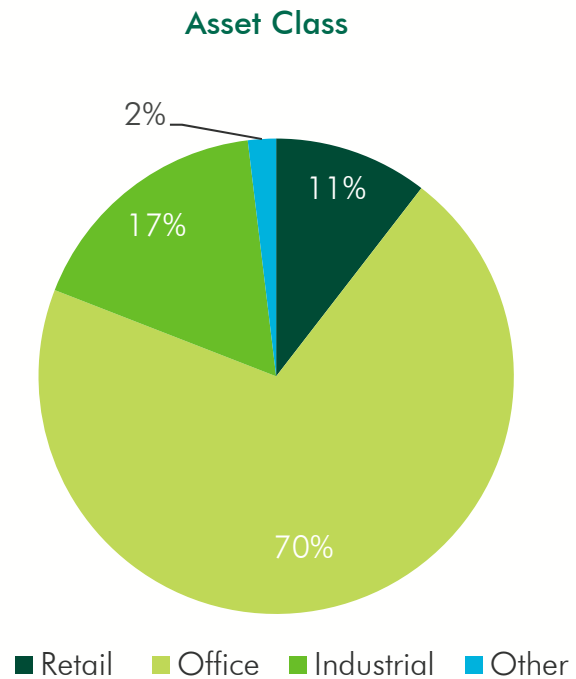


See slide 36 for footnotes

## U.S. Leasing

Largely Recurring Business Over Time<sup>1</sup> With Increasing Market Share

2016 U.S. Leasing Volume - \$82 billion

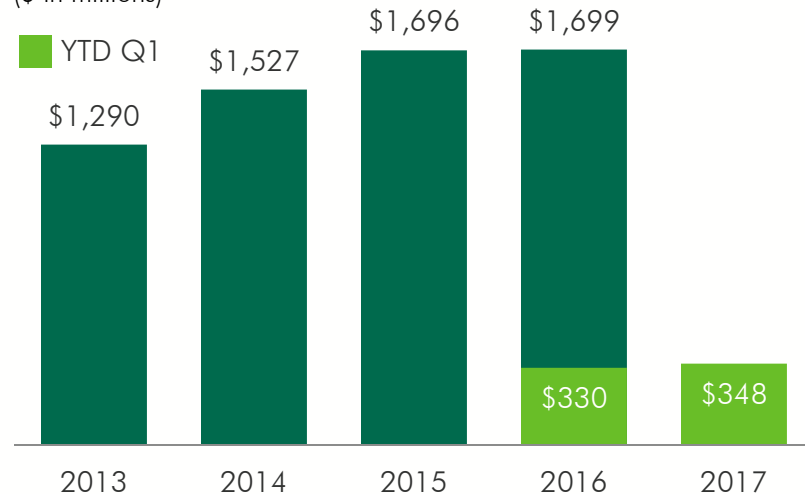


# Property Sales

## Insight and Execution Across Markets & Property Types

### Historical Revenue

(\$ in millions)

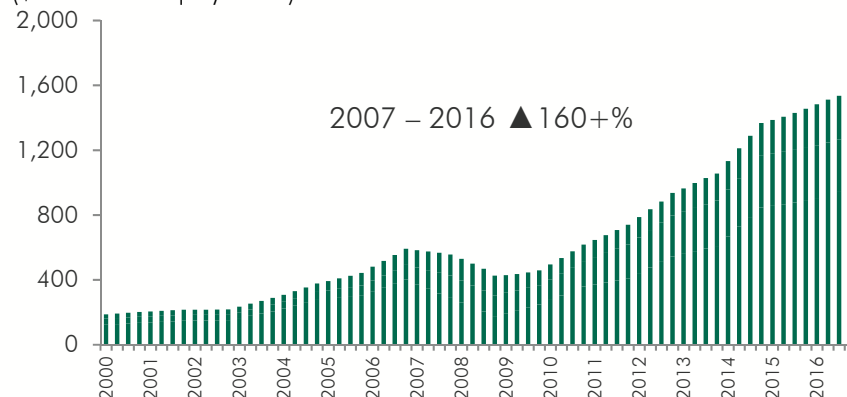


### Overview

- Strategic advisor (sellers and buyers) in commercial real estate
- #1 global market share, based on Real Capital Analytics
  - 800 basis point advantage over #2 firm for full year 2016
- #1 global market position – \$211.4 billion sales volume in 2016
  - Office: \$79.4 billion
  - Industrial: \$31.7 billion
  - Retail: \$33.3 billion
  - Other: \$24.8 billion
  - Multi-family: \$42.2 billion

### Increased Ownership by Active Portfolio Managers Drives Sales Velocity

(\$ billions of equity value)



- Private equity firms, REITs and open-end funds are active traders of real estate and account for an increasingly larger portion of the investment market
- Many large, traditional owners do not actively trade their assets
- As a result, transaction volumes should increase over time

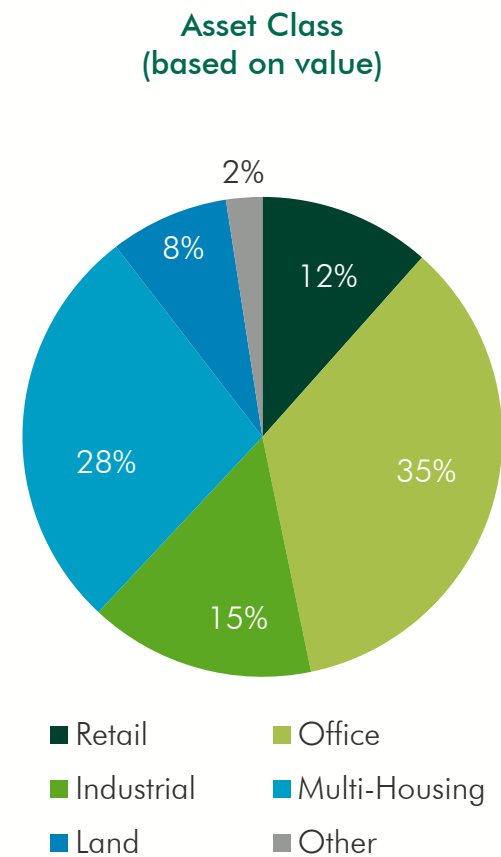
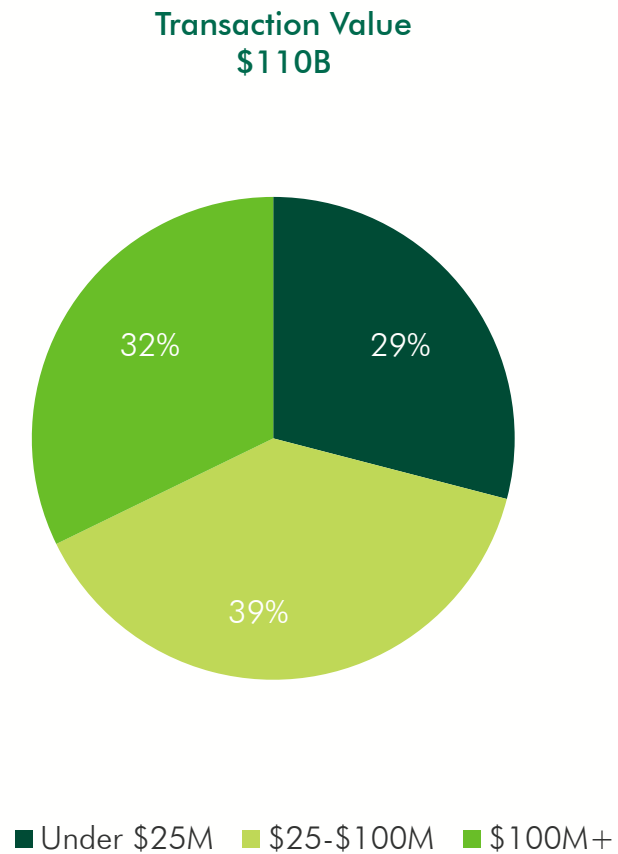


Source: NAREIT, NCREIF, Prequin, and Goldman Sachs Research

# U.S. Property Sales

Highly Diverse Business Across Transaction Size and Asset Class

## 2016 U.S. Sales Transactions

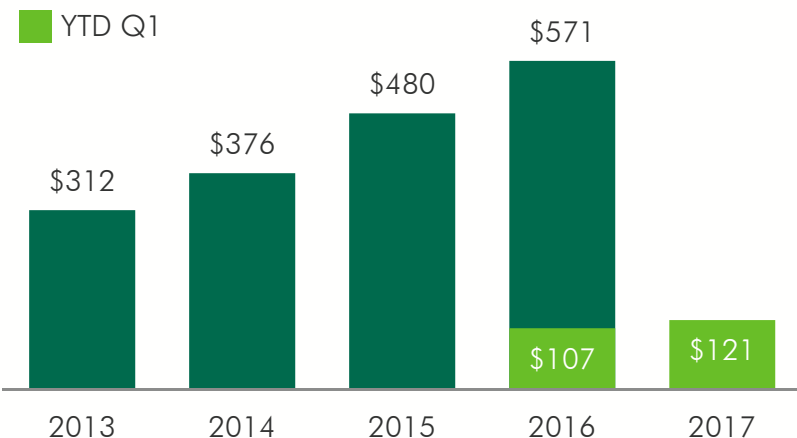


# Commercial Mortgage Services

## Premier Debt and Structured Finance Solutions

### Historical Revenue

(\$ in millions)



### Recent Transactions



United States

Lexin Capital

\$85 Million

Acquisition Financing



United States

Banyan Street Capital  
/ Oaktree Capital  
Management

\$100 Million

Refinancing



Germany

Bank of America  
Merrill Lynch /  
Goldman Sachs

\$1.8 Billion

Acquisition Financing

### Overview

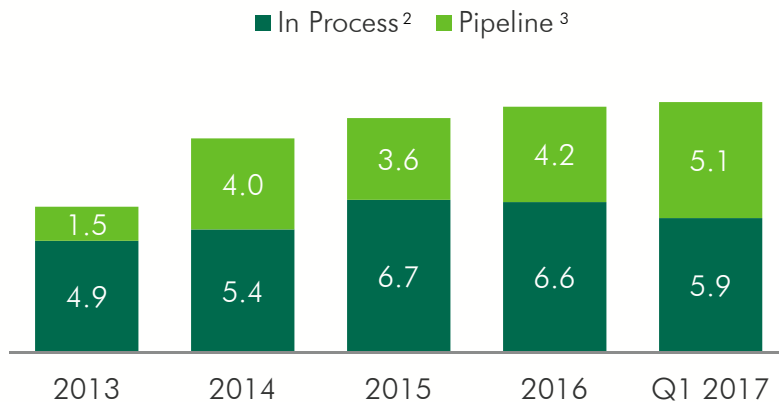
- A leading strategic advisor for debt and structured finance solutions
  - Highly synergistic with property sales
- Key services:
  - Loan origination / debt placement
  - Portfolio loan sales
  - Loan servicing
- \$44.0 billion of global mortgage activity in Q1 TTM 2017<sup>1</sup>
- Commercial loan origination with government agencies \$15.9 billion<sup>2</sup> in Q1 TTM 2017
- \$150 billion loan servicing portfolio as of 3/31/17

# Development Services

Trammell Crow Company – A Premier Brand in U.S.

## Projects In Process/Pipeline<sup>1</sup>

(\$ in billions)



## Overview

- A premier brand in U.S. development
  - 65+ year record of excellence
- Partner with leading institutional capital sources
- \$125.9 million of co-investment at the end of Q1 2017
- \$15.6 million in repayment guarantees on outstanding debt balances at the end of Q1 2017

## Recent Projects

### Park District



Dallas, TX  
Mixed-Use

### The Boardwalk



Newport Beach, CA  
Office

### LA Plaza



Los Angeles, CA  
Mixed-use

### Principio Commerce Park



North End, MD  
Industrial



# APPENDIX

**CBRE**

## Q1 2017 Financial Metrics

(\$ in millions)	Three Months Ended March 31,	
	2017	2016
Depreciation	\$ 38.4	\$ 37.4
Adjusted amortization <sup>1</sup>	28.7	24.7
Net interest expense	31.6	33.3
Adjusted income tax rate <sup>2</sup>	29.2%	35.5%

### Q1 2017 Currency Effects vs. Prior Year

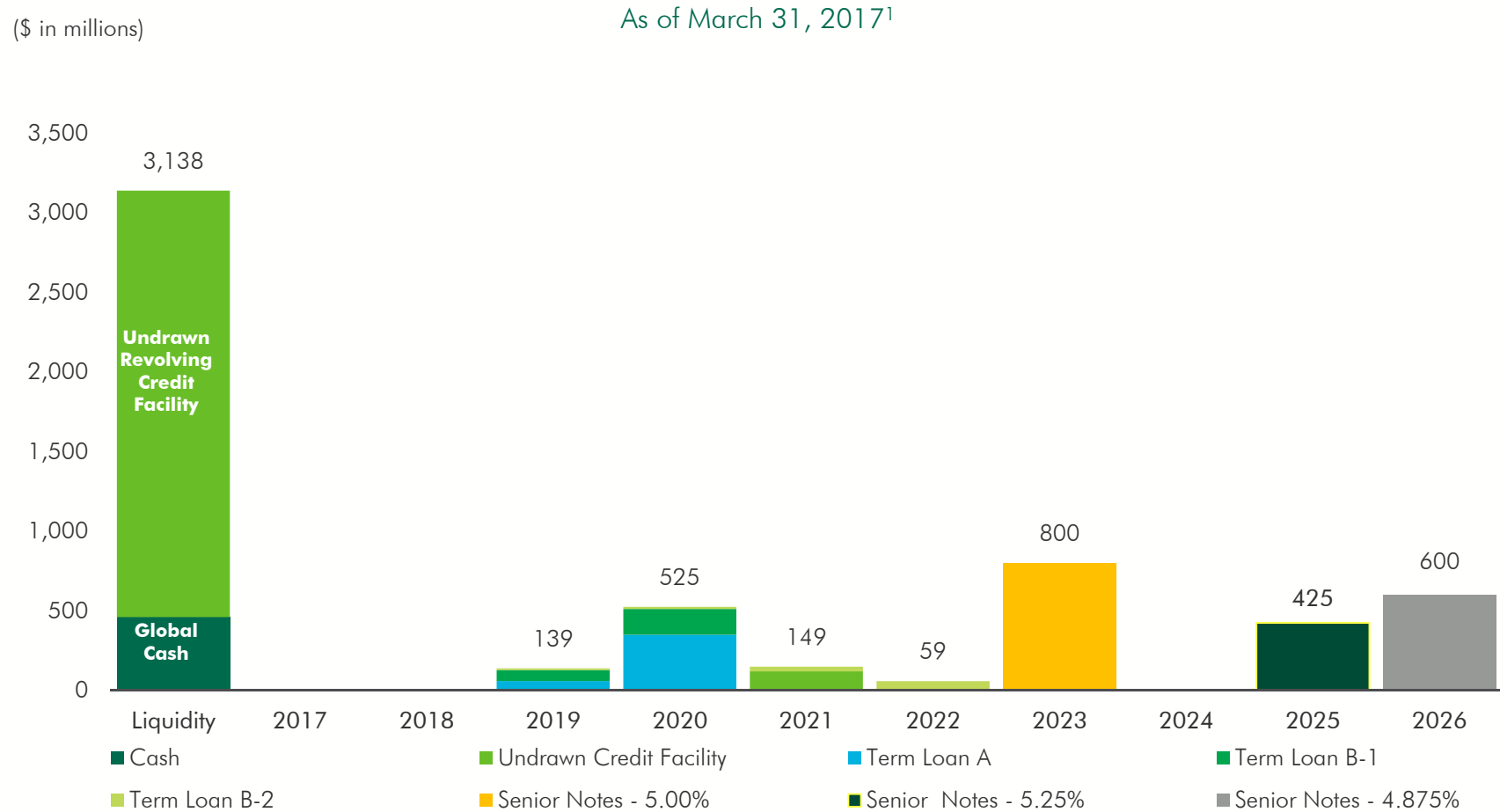
Q1 currency translation as well as other exchange rate transaction losses during Q1 2017 against same period prior year (pre-tax adjusted EBITDA impact)	(\$6.1 million)
Q1 marking-to-market of currency hedges against same period prior year (pre-tax adjusted EBITDA impact) <sup>3</sup>	\$7.5 million
Net year-over-year impact	\$1.4 million

1. Excludes \$26.9M and \$24.9M of amortization expense related to certain intangible assets attributable to acquisitions for Q1 2017 and Q1 2016, respectively.

2. Adjusted income tax rates include the tax effect on select items, including amortization expense related to certain intangibles attributable to acquisitions, cost elimination expenses, integration and other costs related to acquisitions, and certain carried interest incentive compensation (reversal) expense adjusted to align with the timing of associated revenue. Also adjusts pre-tax income for portion attributable to non-controlling interests.

3. This amount represents hedging losses in the prior year that did not recur in the current year. As of December 31, 2016, we had no foreign currency exchange forward contracts outstanding. We do not intend to hedge our foreign currency denominated EBITDA in 2017.

## Mandatory Amortization And Maturity Schedule



1. \$2,800 million revolving credit facility matures in March 2021. As of March 31, 2017, the revolving credit facility balance was \$120 million.

## Capitalization

(\$ in millions)	As of March 31, 2017	
Cash <sup>1</sup>	\$	460
Revolving credit facility		120
Senior term loan A <sup>2</sup>		405
Senior term loan B-1 <sup>2</sup>		230
Senior term loan B-2 <sup>2</sup>		110
Senior notes – 5.00% <sup>2</sup>		791
Senior notes – 4.875% <sup>2</sup>		591
Senior notes – 5.25% <sup>2</sup>		422
Other debt <sup>3,4</sup>		-
Total debt	\$	2,669
Stockholders' equity		3,212
Total capitalization	\$	5,881
Total net debt	\$	2,209
Net debt to TTM Q1 2017 Adjusted EBITDA		1.40x

1. Excludes \$72.9 million of cash in consolidated funds and other entities not available for company use at March 31, 2017.

2. Outstanding amount is reflected net of unamortized debt issuance costs.

3. Excludes \$671.5 million of warehouse facilities for loans originated on behalf of the FHA and other government sponsored enterprises outstanding at March 31, 2017, which are non-recourse to CBRE Group, Inc.

4. Excludes non-recourse notes payable on real estate, net of unamortized debt issuance costs, of \$24.5 million at March 31, 2017.

## Non-GAAP Financial Measures

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

- i. fee revenue
- ii. contractual fee revenue
- iii. net income attributable to CBRE Group, Inc., as adjusted (which we also refer to as “adjusted net income”)
- iv. 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”)
- v. EBITDA and adjusted EBITDA
- vi. Return on Invested Capital (ROIC)

None of these measures is a recognized measurement under United States generally accepted accounting principles, or “GAAP,” and when analyzing our operating performance, readers 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, and 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 because it excludes costs reimbursable by clients, and as such provides greater visibility into the underlying performance of our business.

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, 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 these 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.

With respect to ROIC, the company believes that investors may find this measure useful in evaluating the return on their investment in CBRE compared to that of other companies in our industry and alternative investments.

## Reconciliation of Adjusted EBITDA to EBITDA to Net Income (Loss)

(\$ in millions)	Twelve Months Ended	
	March 31, 2017	December 31, 2003
Adjusted EBITDA	\$ 1,581.5	\$ 183.2
Adjustments:		
Integration and other costs related to acquisitions	120.4	13.6
Cost-elimination expenses	66.1 <sup>1</sup>	36.8
Carried interest incentive compensation (reversal) expense to align with the timing of associated revenue <sup>2</sup>	(31.3)	-
EBITDA	1,426.3	132.8
Add:		
Interest income	9.0	3.8
Less:		
Depreciation and amortization	373.9	92.8
Interest expense	144.1	71.3
Write-off of financing costs on extinguished debt	-	13.5
Provision for (benefit of) income taxes	297.9	(6.3)
Net income (loss) attributable to CBRE Group, Inc.	\$ 619.4	\$ (34.7)

1. Represents cost-elimination expenses relating to a program initiated in Q4 2015 and completed in Q3 2016 to reduce the company's global cost structure after several years of significant revenue and related cost growth. Cost-elimination expenses incurred during the twelve months ended March 31, 2017 consisted of \$61.8 million of severance costs related to headcount reductions in connection with the program and \$4.3 million of third-party contract termination costs.

2. CBRE began adjusting carried interest compensation expense in Q2 2013 in order to better match the timing of this expense with associated carried interest revenue. This expense has only been adjusted for funds that incurred carried interest expense for the first time in Q2 2013 or in subsequent quarters.

## Reconciliation of Net Income to Adjusted Net Income and Adjusted Earnings Per Share

(\$ in millions, except per share amounts)	Three Months Ended March 31,	
	2017	2016
Net income attributable to CBRE Group, Inc.	\$ 129.6	\$ 82.2
Amortization expense related to certain intangible assets attributable to acquisitions	27.0	24.8
Integration and other costs related to acquisitions	11.9	17.2
Cost-elimination expenses	-	12.4
Carried interest incentive compensation (reversal) expense to align with the timing of associated revenue	(15.2)	0.5
Tax impact of adjusted items	(8.5)	(16.3)
Adjusted net income	\$ 144.8	\$ 120.8
Adjusted diluted earnings per share	\$ 0.43	\$ 0.36
Weighted average shares outstanding for diluted income per share	339,690,579	337,506,232

## Reconciliation of Net Income (Loss) to EBITDA to Adjusted EBITDA to Adjusted After-Tax Earnings Before Interest to After-Tax ROIC

(\$ in millions)	Twelve Months Ended December 31,			
	2016	2015	2014	2013
Net income (loss) attributable to CBRE Group, Inc.	\$ 572.0	\$ 547.1	\$ 484.5	\$ 316.5
Add:				
Depreciation and amortization <sup>1</sup>	366.9	314.1	265.1	191.3
Goodwill and other non-amortizable intangible asset impairment	-	-	-	98.1
Interest expense <sup>2</sup>	144.9	118.9	112.0	138.4
Write-off of financing costs on extinguished debt	-	2.7	23.1	56.3
Provision for income taxes <sup>3</sup>	296.7	320.8	263.8	188.6
Less:				
Interest income	8.1	6.3	6.2	6.3
EBITDA <sup>4</sup>	1,372.4	1,297.3	1,142.3	982.9
Adjustments:				
Integration and other costs related to acquisitions	125.7	48.9	-	12.6
Cost-elimination expenses	78.5	40.4	-	17.6
Carried interest incentive compensation (reversal) expense	(15.6)	26.1	23.8	9.2
Adjusted EBITDA <sup>4</sup>	1,561.0	1,412.7	1,166.1	1,022.3
Depreciation	152.8	138.7	126.5	104.8
Adjusted Amortization <sup>5</sup>	103.0	88.8	72.5	57.0
Adjusted EBIT	1,305.2	1,185.2	967.1	860.5
Adjusted Tax Rate Applied	33.37%	35.75%	34.85%	34.88%
Adjusted after-tax earnings before interest	\$ 869.7	\$ 761.5	\$ 630.1	\$ 560.3
Net debt (annual average) <sup>6,7</sup>	2,034.1	1,703.5	1,362.4	1,523.7
Shareholders equity (annual average) <sup>6</sup>	2,863.6	2,486.2	2,077.8	1,717.5
Invested capital (annual average) <sup>6</sup>	\$ 4,897.7	\$ 4,189.7	\$ 3,440.2	\$ 3,241.2
After-tax ROIC	17.8%	18.2%	18.3%	17.3%



## Reconciliation of Net Income (Loss) to EBITDA to Adjusted EBITDA to Adjusted After-Tax Earnings Before Interest to After-Tax ROIC

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1. Includes depreciation and amortization related to discontinued operations of \$0.9 million for the year ended December 31, 2013.
2. Includes interest expense related to discontinued operations of \$3.3 million for the year ended December 31, 2013.
3. Includes provision for income taxes related to discontinued operations of \$1.3 million for the year ended December 31, 2013.
4. Includes EBITDA related to discontinued operations of \$7.9 million for the year ended December 31, 2013.
5. Adjusted amortization excludes amortization expense related to certain intangible assets attributable to acquisitions of \$111.1 million, \$86.6 million, \$66.1 million and \$29.5 million for the years ended December 31, 2016, 2015, 2014 and 2013, respectively.
6. Annual average is the average of the beginning and year end balances.
7. Net debt includes total debt, excluding amounts that are non-recourse to the company, less cash available for general corporate use. In the third quarter of 2015, the company elected to early adopt the provisions of ASU2015-03, "Interest-Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs." This ASU requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability instead of separately being recorded in other assets. Such debt issuance costs are reflected as a component of net debt in 2015 and 2016. For 2014 and prior, amounts have not been restated to conform with this presentation.

## Reconciliation of Revenue to Fee Revenue

(\$ in millions)	Twelve Months Ended	
	December 31, 2016 <sup>1</sup>	December 31, 2006
Consolidated revenue	\$ 13,071.6	\$ 4,032.0
Less:		
Client reimbursed costs largely associated with employees dedicated to client facilities and subcontracted vendor work performed for clients	4,297.8	289.7
Consolidated fee revenue	\$ 8,773.8	\$ 3,742.3
Less:		
Non-contractual fee revenue	5,073.9	2,943.9
Contractual fee revenue	\$ 3,699.9	\$ 798.4

1. Certain adjustments have been made to 2016 fee revenue to conform with current-year presentation.

## Reconciliation of Revenue to Fee Revenue and Contractual Fee Revenue

(\$ in millions)	Three Months Ended March 31,	
	2017	2016 <sup>2</sup>
Occupier Outsourcing revenue <sup>1</sup>	\$ 1,474.2	\$ 1,413.3
Less:		
Client reimbursed costs largely associated with employees dedicated to client facilities and subcontracted vendor work performed for clients	915.1	877.0
Occupier Outsourcing fee revenue <sup>1</sup>	\$ 559.1	\$ 536.3
Property Management revenue <sup>1</sup>	\$ 269.3	\$ 250.7
Less:		
Client reimbursed costs largely associated with employees dedicated to client facilities and subcontracted vendor work performed for clients	145.0	133.3
Property Management fee revenue <sup>1</sup>	\$ 124.3	\$ 117.4
Consolidated revenue	\$ 2,981.2	\$ 2,846.7
Less:		
Client reimbursed costs largely associated with employees dedicated to client facilities and subcontracted vendor work performed for clients	1,060.1	1,010.3
Consolidated fee revenue	\$ 1,921.1	\$ 1,836.4
Less:		
Non-contractual fee revenue	1,031.6	982.3
Contractual fee revenue	\$ 889.5	\$ 854.1

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

2. Certain adjustments have been made to 2016 fee revenue to conform with current-year presentation.

## Footnotes

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NOTE: Local currency percent changes versus prior year are non-GAAP financial measures noted on slide 11. These percent changes are calculated by comparing current year results versus prior year results, in each case at prior year exchange rates.

### Slide 3

1. Assets Under Management (AUM) as of March 31, 2017.
2. As of December 31, 2016, includes affiliates.
3. Property and corporate facilities under management as of December 31, 2016; 7% of this square footage is managed by affiliates.

### Slide 6

1. Adjusted EBITDA excludes (from EBITDA) certain carried interest incentive compensation (reversal) expense to align with the timing of associated revenue, cost-elimination expenses and integration and other costs related to acquisitions.
2. Adjusted EPS excludes the effect of select charges from GAAP EPS as well as adjusts the provision for income taxes for such charges. Adjustments during the periods presented included amortization expense related to certain intangible assets attributable to acquisitions, cost elimination expenses, integration and other costs related to acquisitions, and certain carried interest incentive compensation expense (reversal) to align with the timing of associated revenue.

### Slide 7, 18 & 19

1. 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.

### Slide 10

1. Other includes Development Services revenue (1% in both 2006 and 2016) and Other revenue (1% in both 2006 and 2016).
2. Capital Markets includes Sales revenue (33% in 2006 and 19% in 2016) and Commercial Mortgage Services revenue (4% in 2006 and 7% in 2016).
3. Contractual Sources include Occupier Outsourcing and Property Management revenue (7% in 2006 and 32% in 2016; excludes associated sales and lease revenues, most of which are contractual), Global Investment Management revenue (6% in 2006 and 4% in 2016), and Valuation revenue (8% in 2006 and 6% in 2016).
4. Fee Revenue is gross revenue less client reimbursed costs largely associated with our employees that are dedicated to client facilities and subcontracted vendor work performed for clients. Certain adjustments have been made to 2016 fee revenue to conform with current-year presentation.
5. On a GAAP revenue basis (as opposed to a fee revenue basis) contractual plus leasing revenues are 64% and 82% of GAAP revenues in 2006 and 2016, respectively.

## Footnotes

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### Slide 11

1. Contractual revenue refers to revenue derived from our Occupier Outsourcing, Property Management, Investment Management and Valuation 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.
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.
4. Certain adjustments have been made to 2016 fee revenue to conform with current-year presentation.

### Slide 14

1. Historical revenue for Occupier Outsourcing line of business (formerly Global Corporate Services or GCS, now called Global Workplace Solutions) excludes associated sales and leasing revenue, most of which is contractual.
2. 2015 revenue includes four months of contribution from the Global Workplace Solutions business acquired on September 1, 2015.
3. Per International Association of Outsourcing Professionals (IAOP).

### Slide 16

1. Property Management (also known as Asset Services) revenue excludes associated leasing revenue.
2. 11% of this square footage is managed by affiliates.

### Slide 17

1. Excludes global securities business.
2. As of March 31, 2017.

### Slide 23

1. Activity includes loan originations and loan sales, and affiliate loan originations.
2. As measured in dollar value loaned.

### Slide 24

1. As of December 31 for each year presented except Q1 2017.
2. In Process figures include Long-Term Operating Assets (LTOA) of \$0.2 billion for Q1 2017, \$0.2 billion for Q4 2016, \$0.1 billion for Q4 2015, \$0.3 billion for Q4 2014 and \$0.9 billion for Q4 2013. LTOA are projects that have achieved a stabilized level of occupancy or have been held 18-24 months following shell completion or acquisition.
3. Pipeline deals are those 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 twelve months out.