## 2019 CBRE INVESTOR DAY



## **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, 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 most recent annual report filed on Form 10-K, and in particular any discussion of risk factors or forward-looking statements therein, which is 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.



## 2019 CBRE INVESTOR DAY FINANCIAL REVIEW & OUTLOOK



## Track Record – CBRE Earnings Growth vs. S&P 500



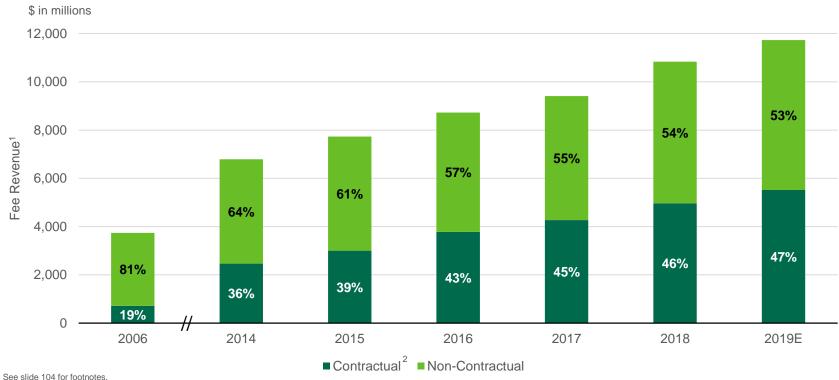


Source: FactSet, Company filings

See slide 104 for footnotes.

Note: 2016 and 2017 adjusted EPS were restated for ASC 606. 2016 adjusted EPS did not change, and 2017 was restated by \$0.02 per share or less than 1% of adjusted EPS. We have not made a similar restatement for 2012-2015, and adjusted EPS for such periods continues to be reported under the accounting standards in effect for those periods. 2018 reflects ASC 606.

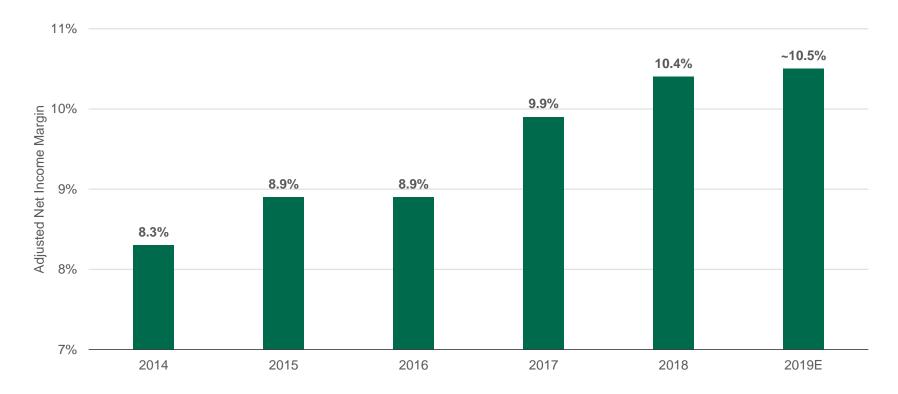
## **Business Mix Shifting to More Contractual**



Note: 2016 and 2017 fee revenue figures were restated for ASC 606. We have not made a similar restatement for 2006, 2014 or 2015, and fee revenue figures for such periods continue to be reported under the accounting standards in effect during those periods. 2018 and 2019 fee revenue figures reflect ASC 606.



## **Adjusted Net Income Margin**





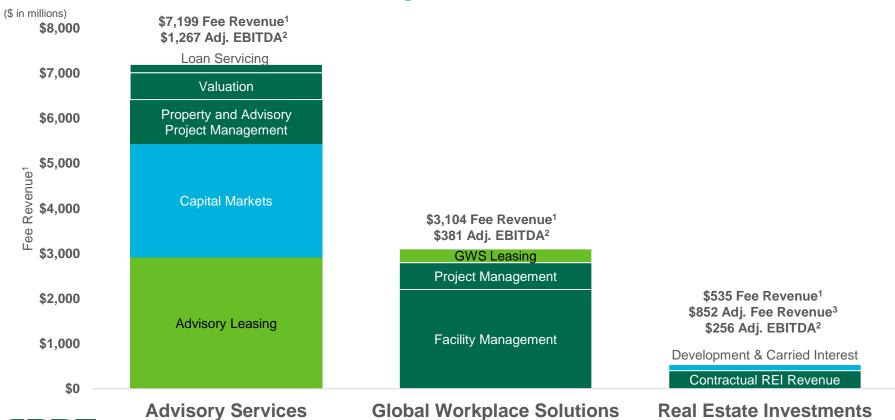
Note: Adjusted Net Income Margin defined as adjusted net income / fee revenue.

Note: 2016 and 2017 adjusted net income margin figures were restated for ASC 606. We have not made a similar restatement for 2014 and 2015, and adjusted net income margin figures for such periods continue to be reported under the accounting standards in effect during those periods. 2018 and 2019 adjusted net income margin figures reflect ASC 606.

## THREE NEW GLOBAL SEGMENTS



## **2018 Actuals Under Our Three New Segments**



CBRE
See slide 104 for footnotes

Contractual Sources

Leasing

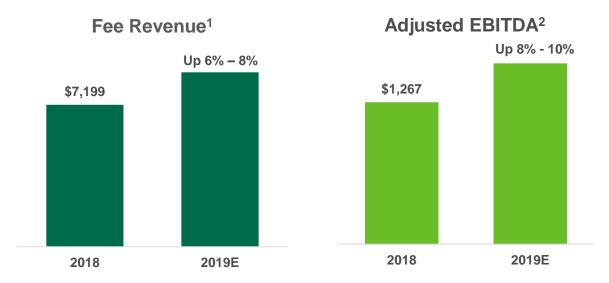
Capital Markets, Development & Carried Interest

2019 CBRE INVESTOR DAY | 8

## OUTLOOK FOR 2019



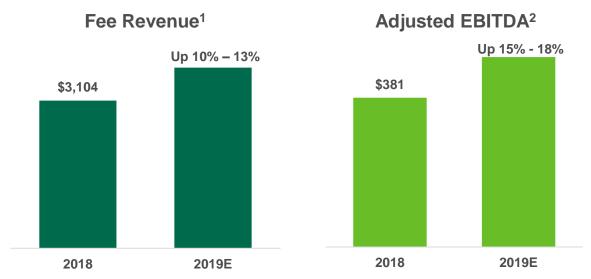
## 2019 Outlook - Advisory Services



- Capital Markets revenue up low-single digits
- Leasing revenue up high-single digits
- Gains on mortgage servicing rights (OMSRs) to decline modestly



## 2019 Outlook – Global Workplace Solutions



- · Major client wins in 2018 drive outlook for strong revenue growth; global capabilities increasingly differentiated
- Expanding capabilities drive new growth with existing clients FacilitySource as example
- Margin expansion driven by cost leverage and cost savings from systems integrations

\$ in millions



#### 2019 Outlook – Real Estate Investments

### Adjusted EBITDA<sup>1</sup>

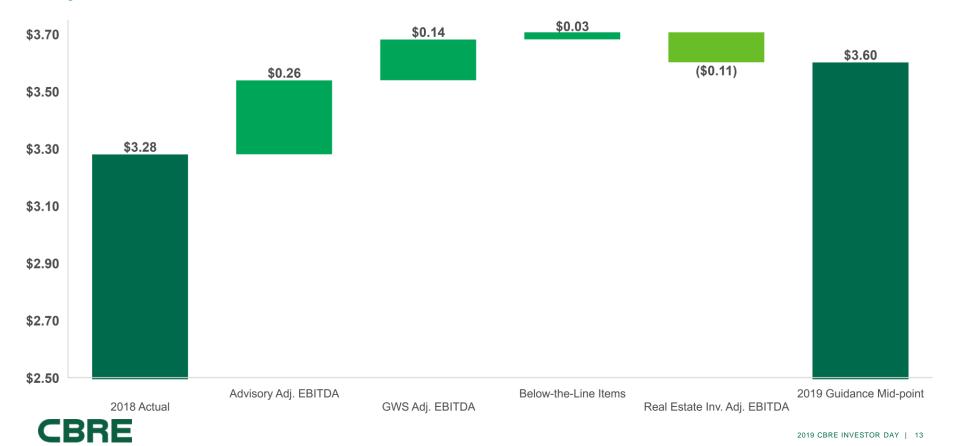


- Development Adjusted EBITDA to be closer to 2017
- Solid improvement in Adjusted EBITDA from Global Investment Management
- Hana wide range of outcomes but likely a negative \$15M \$30M impact to Adjusted EBITDA

\$ in millions



## **Adjusted EPS Guidance Waterfall**



## **2019 Full Year Outlook Summary**

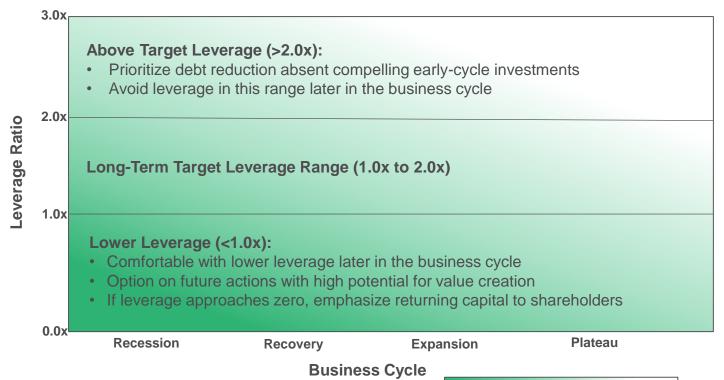
| Metrics                             | 2018 Actual | 2019 Guidance          |
|-------------------------------------|-------------|------------------------|
| Adjusted EPS                        | \$3.28      | \$3.50 - \$3.70        |
| Advisory Fee Revenue                | \$7,199M    | Up 6% - 8%             |
| Advisory Adj. EBITDA                | \$1,267M    | Up 8% - 10%            |
| GWS Fee Revenue                     | \$3,104M    | Up 10% - 13%           |
| GWS Adj. EBITDA                     | \$381M      | Up 15% - 18%           |
| Capital Markets Revenue             | \$2,514M    | Up low-single digits   |
| Advisory Leasing Revenue            | \$2,916M    | Up high-single digits  |
| Real Estate Investments Adj. EBITDA | \$256M      | \$200M - \$220M        |
| Net Interest Expense                | \$99M       | \$20M - \$25M decrease |
| Adj. D&A Expense <sup>1</sup>       | \$339M      | \$30M - \$40M increase |
| Capital Expenditures                | \$189M      | \$200M - \$220M        |
| Adj. Tax Rate <sup>2</sup>          | 23.4%       | ~23.0%                 |



## **CBRE INVESTMENT**



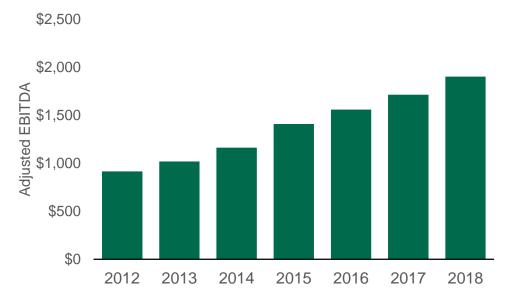
## **Cycle Aware Investing: CBRE Leverage Guideposts** Build Liquidity When Capital is Abundant - Deploy Disproportionately When Scarce





## Financial Performance Gives CBRE a Strong Balance Sheet and Capacity to Invest

### \$9B+ of Adj. EBITDA Generated Since 2011



#### **Ample Liquidity and Dry Powder**

- Strong cash flow
- No debt maturities until 2024
- Cash and credit facility capacity total \$3.5B<sup>1</sup>
- Net debt/Adj. EBITDA of 0.6x<sup>2</sup>

\$ in millions

See slide 105 for footnotes

Note: 2016 and 2017 Adjusted EBITDA figures were restated for ASC 606. 2017 and 2016 Adjusted EBITDA have been restated by \$7.2M and \$1.3M, respectively. 2018 Adjusted EBITDA reflects ASC 606. We have not made a similar restatement for 2012-2015, and Adjusted EBITDA figures for such periods continue to be reported under the accounting standards in effect during those periods.

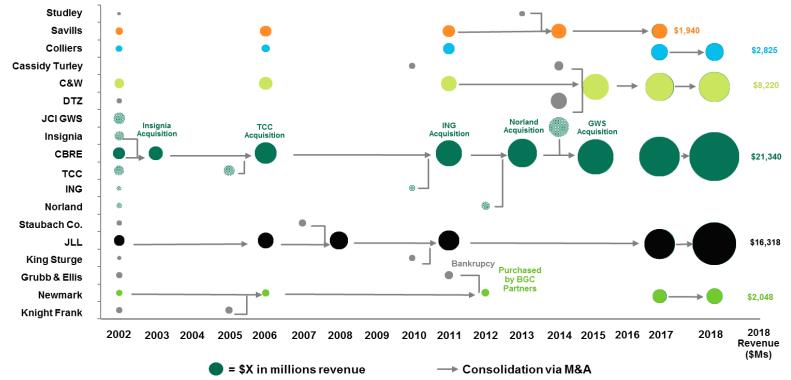


## **Deploying Capital**

- M&A likely to represent best risk-adjusted use of capital over long-term
  - Large, attractive, M&A opportunities arise irregularly
  - All major acquisitions tested against returning capital to shareholders
  - A high volume of smaller M&A opportunities over time
- Returning capital to shareholders share repurchases
  - Share price volatility can result in exceptional opportunity
  - Bought back \$206M in stock at average price of \$40.20
  - New \$300M repurchase program approved by board
  - If average leverage approaches zero, accelerate returning capital to shareholders absent near-term visibility to more attractive uses of capital
- Investment Management and Development businesses offer a unique opportunity for incremental capital investment, especially in the early years of an economic cycle



## M&A: CBRE Holds the Market Leading Position in a Consolidating Industry CBRE has pursued and won 5 of the 12 mergers noted below (did not bid on other 7)





Note: Savills revenue shown is for 2017.

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. C&W's 2015 revenue is a pro forma figure to adjust for the acquisitions of Cassidy Turley and DTZ, 2017 and prior figures have not been adjusted for ASC 606, 2018 figures reflect ASC 606 and are not directly comparable to prior year figures.

#### **Investment in Real Estate**



Park District, Dallas, TX



**Vermont Corridor, Los Angeles, CA** 



Hess Tower, Houston, TX

- #1 commercial real estate development business in the U.S.
- Top 5 global commercial real estate investment management business by AUM



## SUPPLEMENTAL DISCLOSURES



## **Summary of Changes to Supplemental Disclosures**

- CBRE will provide supplemental data with a regional view of services businesses. Changes to align our prior regional views with new global segments include:
  - \$267M of transaction revenue, primarily leasing to GWS client accounts, now captured within GWS
  - \$254M of project management revenue, previously captured within Occupier Outsourcing, moving to Advisory where local project management work is delivered
  - Changes in corporate overhead allocations result in higher Americas adj. EBITDA and lower EMEA and APAC adj. EBITDA
  - Consulting revenue, previously captured within Leasing, allocated to all lines of business
  - "Other" revenue eliminated by allocation to all lines of business



## **New Supplemental Disclosure**

| 2018 Advisory & Global Workplace Solutions    | Α  | mericas | EMEA        | APAC        | Tot | tal Regions |
|---|----|---------|-------------|-------------|-----|-------------|
| Global Workplace Solutions                    | \$ | 1,520   | \$<br>1,314 | \$<br>269   | \$  | 3,104       |
| Advisory Property & Project Mgmt              | \$ | 378     | \$<br>436   | \$<br>173   | \$  | 987         |
| Valuation                                     | \$ | 263     | \$<br>193   | \$<br>143   | \$  | 599         |
| Loan Servicing                                | \$ | 172     | \$<br>11    | \$<br>1     | \$  | 183         |
| Advisory Leasing                              | \$ | 2,142   | \$<br>441   | \$<br>332   | \$  | 2,916       |
| Sales   | \$ | 1,221   | \$<br>442   | \$<br>312   | \$  | 1,975       |
| Comm. Mort. Orig                              | \$ | 530     | \$<br>6     | \$<br>3     | \$  | 539         |
| Total Fee Revenue                             | \$ | 6,227   | \$<br>2,843 | \$<br>1,233 | \$  | 10,303      |
| Adjusted EBITDA                               | \$ | 1,179   | \$<br>300   | \$<br>170   | \$  | 1,649       |
| Adjusted Fee Revenue Margin                   |    | 18.9%   | 10.5%       | 13.8%       |     | 16.0%       |
| Pass through costs also recognized as revenue |    | 6,905   | 2,623       | 975         |     | 10,503      |
| Total Revenue                                 |    | 13,132  | 5,466       | 2,208       |     | 20,805      |

**Note:** 2018 quarterly detail to be provided with Q1 2019 results

| 2018 Real Estate Investment                         |           |
|---|-----------|
| Development Revenue                                 | \$<br>100 |
| Asset Management Revenue                            | \$<br>355 |
| Acquisition, Disposition, Incentive & Other         | \$<br>45  |
| Carried Interest                                    | \$<br>35  |
| Total Revenue                                       | \$<br>535 |
| Add: Development equity income from unconsolidated  | \$<br>302 |
| Add: Development gain on disposition of real estate | \$<br>15  |
| Less: Non-controlling development interest          | \$<br>0   |
| Adjusted Revenue                                    | \$<br>852 |
| Adjusted EBITDA                                     | \$<br>256 |



# 2019 CBRE INVESTOR DAY DIGITAL & TECHNOLOGY OVERVIEW



## **Top Talent: Digital & Technology Leadership at CBRE**



**Sandeep Davé** CDTO, GWS *Citi, Booz Allen* 



**Sayee Bellamkonda** CDTO, Advisory Services *Ameriprise, American Express* 



Javed Roshan CDTO, Real Estate Investments Verizon, Capital One



Nir Rachmel CDTO, Advisory & Transactions- Americas Compstak, Yext



**Umesh Patel** CTO *Ericsson, Bloomin' Brands* 



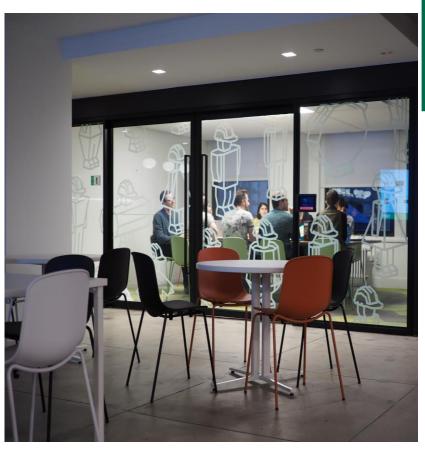
**Dalia Soliman-Powers**Head of Enterprise Services *USAA, Capital One* 



**Sohin Chinoy** Head of Digital Strategy *AT Kearney* 

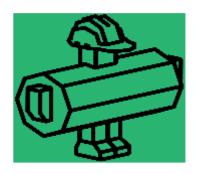


## **CBRE**Build



A new, recruitingfocused sub-brand for D&T's agile software development teams With its youthful energy,
Build gives CBRE a
voice that speaks to the
tech talent for which
we're competing

- Our talent brand
- 100+ Agile, Product Development teams



## **Our Industry is Going Digital Like Never Before**

### **Industry Trends**

Flexible Spaces

**Experience Services** 

Smart Buildings (IOT)

Online Listing Platforms and Brokerages

### Competitor Trends

Increasing Technology Investments

**Increasing Number of Startups** 

**New Competitors** 

Increase in Venture Capital

### **Emerging Tech Trends**

Machine Learning

Blockchain

5G

**Autonomous Vehicles** 



## Our Strategy Has Led to Substantial Transformation at CBRE Over the Last 24 Months

**New Digital and** Technology leadership and talent infusion

Substantial upgrade of key products that help deliver client outcomes

Company-wide migration to agile product development

Product, capability and talent acquisitions

Infrastructure modernization (cloud, analytics, infosec, open source)

Specific digital strategies for each line of business



## We Are Committed to Solving Emerging Needs of Our Clients

Experience 'Platform as a Service' for Occupiers and Investors

Flexible spaces

Tech-enabled aggregator

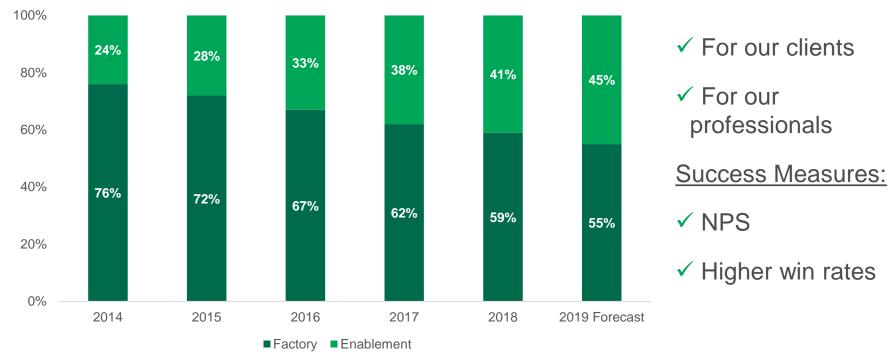








## We Are Investing Significantly in Enabling Technologies





#### The Future is Software + Services

## host

- Experience 'platform as a service' (patent pending)
- 80+ active client opportunities with recurring annual SaaS revenue



**PERSONALIZED HOME SCREEN** 



**ROOM BOOKING** 

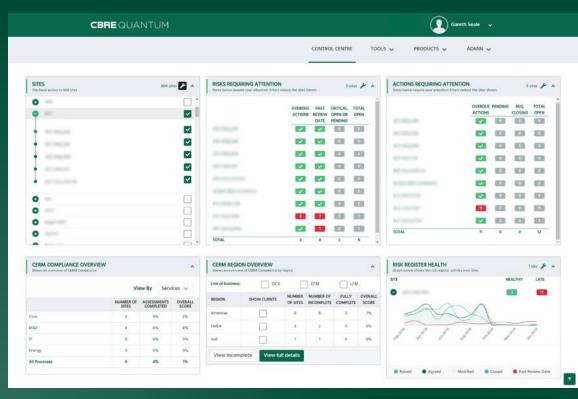


**MAPPING &** WAYFINDING



## **CBREQUANTUM**

## **Data Center Management Platform**



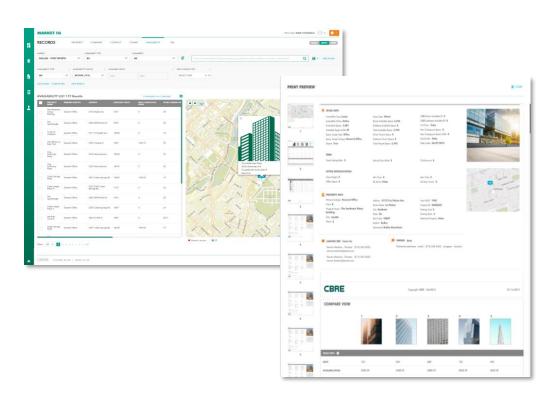
- Building connectivity
- Asset monitoring
- Analytics

**CBRE** 

## We Have a Rich, Verified Property Dataset

- 1.3M+ lease comps
- 500+ attributes each per property

- Regions
- Sub-Markets
- Properties
- Plans





## **Our Transformation Continues**

Right team in place

Globally connected and locally empowered

Continued market scan and invest for the future

Push new data frontiers





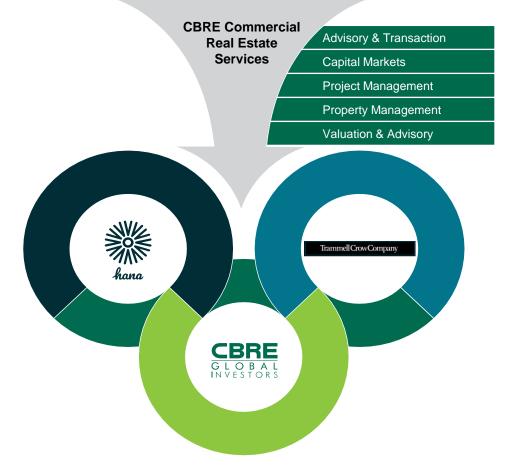
# 2019 CBRE INVESTOR DAY REAL ESTATE INVESTMENTS



## **Real Estate Investments**

## Three Real Estate Investment Businesses with Over \$100B of Third-Party Capital

- CBRE Global Investors Global Real Asset Investment Manager with \$105.5B of Assets Under Management<sup>1</sup>
- Trammell Crow Company U.S.'s leading commercial real estate developer with \$9.0B of projects in process<sup>2</sup>
- **Hana** Premium flexible space solution for owners and occupiers with first units to open in 2019



See slide 105 for footnotes.



# **CBRE Reorganization – Real Estate Investments Impact**

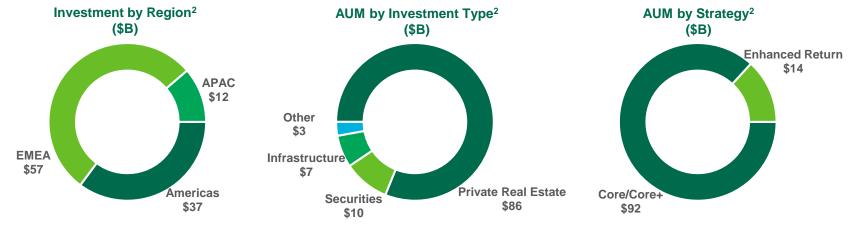
- **Talent.** Strategically placed existing talent into more impactful roles
- Accountability. Created clear lines of authority and accountability.
- **Collaboration.** Centralized reporting structure will drive increased collaboration between Real Estate Investment businesses
- **Efficiency.** Realizing operating synergies, consistency and simplification as a result of Real Estate Investments leadership and shared services



# **CBRE Global Investors Global Real Asset Investment Manager**

- Real asset solutions provided through real estate and infrastructure investment capabilities
- 46-year track record
- \$105.5B assets under management (AUM)<sup>1</sup>

- Global platform 32 offices, 22 countries
- 87% of AUM is core/core+ strategies, including global and regional open-end funds and separate accounts
- Strong regional enhanced return fund strategies

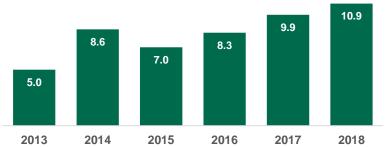


See slide 105 for footnotes.



# **Successful History of Capital Raising**

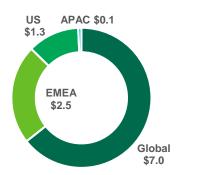
## Capital Raised (\$B)



## \$10.9B Raised in 2018 (\$B)







## **Growth Strategy**

- Intense focus on investment performance
- Top talent in key roles
- Focused, scalable product offerings
- Utilization of the **platform**
- Strategic utilization of CBRE capital



## **AUM Growth Drivers Over the Last Five Years**

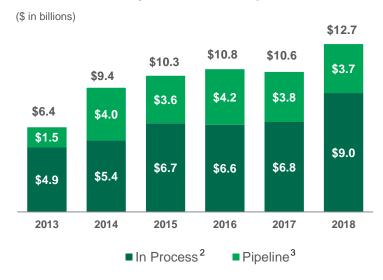




# **Trammell Crow Company Leading U.S. Commercial Real Estate Developer**



#### **Projects in Process/Pipeline**



## **Representative Equity Partners**





















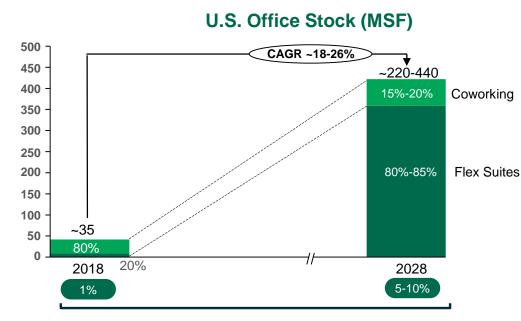
# **Strong Realized Returns to Equity Partners**



<sup>1.</sup> Partner net realized IRR is net of all costs, fees and promotes paid to Trammell Crow Company.



# Hana **Premium Flexible Space Solutions**



Agile Workplace as % of Existing Inventory

## **Agile Market Trends**

- Substantial shift in occupier needs
  - Flexible Workforce 75% of CRE executives. anticipate using agile solutions in their growth plan
  - The War for Talent 88% of employees want more control over their work experience
- Continual increase in densification
- Phenomenon is global, led by gateway cities
- Owners want to participate but have limited options beyond leasing to third parties

Occupier Flexible Space Demand Represents a Robust, Secular Trend



# Targets Enterprise Clients and Structural Alignment with Owners



- · Branded, semi-custom suites
- Hana . Flexible lease terms **Team** • Enterprise teams of 15-300+
  - · Control over branding/culture

70% OF **FLOORPLAN** 



**Hana** • Available by day, week, or month

· Conference, meeting and project team spaces

**Meet** • Light food & beverage offerings

Integrated, easy to use technology

20% OF **FLOORPLAN** 



Hana Share

 Traditional coworking shared desks and areas available by monthly subscription

10% OF **FLOORPLAN** 

## **Economics**

- Projected \$50M to \$60M capex investment in Hana units in 2019
- Individual units expected to break even 12 to 18 months following build-out
- Initial years projected to see ramp-up of multiple units
- Expect 2019 adj. EBITDA loss of \$15M to \$30M, with wide range of outcomes dependent on speed of ramp-up

Expanded opportunity for management agreements, occupier campus needs and a vertically integrated offering **CBRE** 

# Diversified Leadership Team: Hospitality, Tech and Consumer Product Expertise



**Andrew Kupiec**Chief Executive Officer *Zipcar, Avis Budget* 



Brian Harrington
Chief Experience Officer
Zipcar, eBay, Starwood



Scott Marshall
Chief Dev. Officer / Pres.
CBRE, Colliers



**Robert Cartwright**Chief Operating Officer
WeWork, Starwood



Amit Seth SVP Strategy & PMO PTC, EMC



**Christopher Corpuel**VP, Product *Amazon, Hilton* 



**Andrew Daley**VP, Marketing
Zipcar, Starwood



Martin Ma
VP, Technology
NBC Universal, Disney



Mitch Gleason VP, Ops Excellence CBRE, WeWork



**Andrew Horn**VP, Underwriting
CBRE, Alix Partners



Angela Morris
VP, Ops Finance
Tishman, Crescent Hotels



**Alicia Spradlin**VP, Physical Tech & Operations
CBRE, Fujitsu



**Laura Sidney**Bus. Dev., Americas



Josh Beer Bus. Dev., EMEA



Ben Hootnick Sr. Product Mgr



**Bob Staufenberger** Sr. Dir, Construction



Lindsay Wester
Dir. of Brand & Comms



**Lianne Barry**Sr. Associate



John Stephens
Manager, Product



**Aimee Bentson** Dir., Sales Ops



Paul Nellist MD, Europe



James Friedenthal Launch Manager, UK



**Anna Benaquisto**Sr. Associate



Jack Hendrickson
Dir., Security Ops



**Amy Johannes** Dir., PMO



**Trisha Sanyal** Dir., HR



Anna Lynn Tommasone
Client Services

**Strategic Partners:** 



Global Workplace Solutions Digital & Technology Advisory & Transactions Services





FLOORED

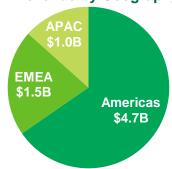


# 2019 CBRE INVESTOR DAY ADVISORY SERVICES

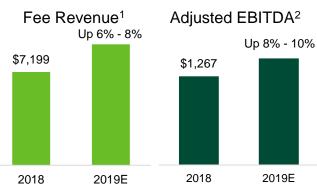


# **ADVISORY SERVICES**

2018 Advisory Fee Revenue by Geography



# **Growth Expectations**



See slide 105 for footnotes.

# **Property Sales**



\$229.6B Transactions

## **Advisory Leasing**



Transactions

\*Reflects all leasing including activity for GWS accounts

Commercial Mort.
Origination



\$53.4B
Transactions

# Advisory Property



2.8B\*\*
Square Feet

# Loan Servicing



\$201.2B Loan Portfolio

### **Valuation**



513,800 Annual Appraisals

2019 CBRE INVESTOR DAY | 48

\*\* Only includes Property Management as Project Management is measured in dollar value

# CBRE Reorganization – Advisory Impact

- Focused Leadership and Accountability. Market leaders fully focused on Advisory businesses tied to performance metrics and compensation
- **People.** Promoted up-and-coming leaders into new, more impactful, roles
- Collaboration. Organizing globally, not by geography, drives positive synergies and collaboration
- Clients. Client Care program driving connectivity across Capital Markets, Leasing and Property Management
- **Product.** Senior executive, Jack Durburg, focused on driving differentiation and integration across products



# Market Backdrop: Our Industry is in Transition

## **Client Preferences Are Changing**







- Local
- Transactional
- Commoditized

- Global
- Advisory
- Differentiated

# **How Does CBRE Outperform in** the Evolving Environment?



**Top Talent** 



Advisory **Platform** 



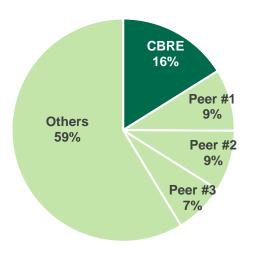
Scale Connectivity Culture



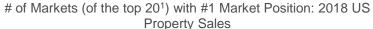
# **Top Talent: CBRE Capital Markets is the Leader Across the Largest Markets**

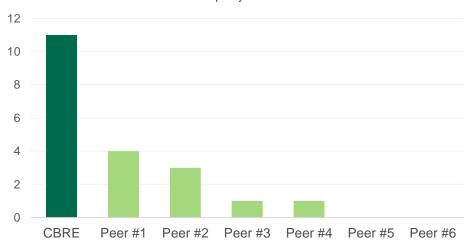
CBRE is the Overall Leader in **Capital Markets** 

Share of US Property Sales per RCA



CBRE Capital Markets has Broad Leadership Across the Largest **Local Markets** 





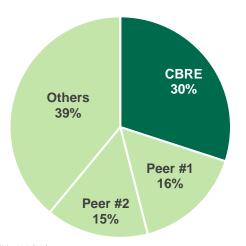


# **Top Talent: CBRE Leads on the Largest Occupier Leasing Transactions**

CBRE Does More of the Largest **Leasing Transactions** 

CBRE Most Often the Local Market Leader in US Occupier Transactions

Share of Top 25 US Office Occupier Leasing Transactions\*



# of Markets (of the top 201) with #1 Market Position: 2018 US Office Occupier Leasing Transactions 20 16 12 8 **CBRE** Peer #1 Peer #2 Peer #3 Peer #4 Peer #6

See slide 106 for footnotes



\*Note: Data represent top 25 deals data for each market and is collected quarterly in local markets through joint efforts between CBRE market leaders, Sales Management and Research. Percentages above are estimates. Data may be incomplete and is not representative of the entire market. The information is meant to be used for directional purposes only.

## **Advisory Platform for Occupiers & Investors**



#### **PROPERTY TYPES**

- Office
- **Industrial & Logistics**
- Retail
- **Multi-Family**
- Hotels
- Specialty



#### **ADVISORY CAPABILITIES**

- **Workplace Strategy**
- **Labor Analytics**
- **Economic Incentives**
- **Supply Chain Analytics**
- **Retail Analytics**
- **Portfolio Services**



#### PRACTICE GROUPS

- Law Firms
- Tech & Media
- **Mall Specialty**
- Life Science
- **Data Centers**
- **Energy & Sustainability**
- Healthcare/Seniors

# SALES SUPPORT

Marketing

Research

**Sales Management** 

**Digital Sales** 

#### **DIGITAL & TECHNOLOGY**

## In our local offices around the globe:

- 80 sales management professionals
- 650 research professionals
- 600 marketing and communications professionals
- 70 geographic information systems professionals
- 10 digital sales professionals

# Advisory Platform: Investing in Digital & Technology and Driving Adoption

35 products launched or rolling out in Advisory in the **CBRE Vantage** suite of enabling technologies

## **Deal Flow & Connector**



## **Dimension**



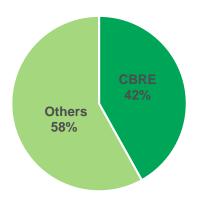


# Scale, Connectivity, Culture: Global Market Leadership

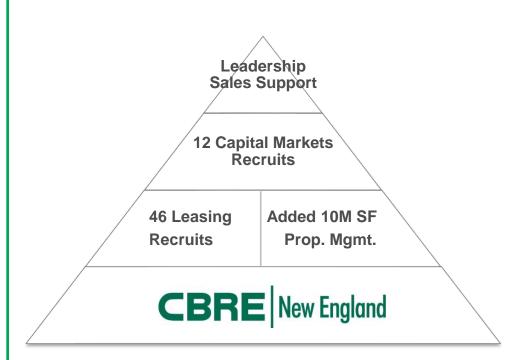
## **Global Market Leadership**

- **#1** Leasing
- #1 Capital Markets
- **#1** Appraisal & Valuation
- **#1** Property Management

## **CRE Services Market Capitalization**



## **2018 New England Expansion Demonstrates Increasing Scale and Capabilities**



# Scale, Connectivity, Culture: CBRE Workplace360







Improving the Way We Work

**Generating Business** 

**Optimizing Our Assets** 

## Tangible Results<sup>1</sup>

- 93% would not go back to the old way of working
- 79% felt more productive
- 95% felt CBRE made a significant investment in people
- 94% agree or strongly agree that they collaborate better

# Investing in Local Market Leadership to Bring it All Together

#### Canada

24 Offices \$14.2B Transaction Value

#### Mountain-Northwest

39 Offices \$48.6B Transaction Value

#### Midwest

30 Offices \$22.1B Transaction Value

#### **Pacific Southwest**

23 Offices \$35.5B Transaction Value

#### **United Kingdom**

23 Offices \$39.2B Transaction Value

#### **Northeast**

35 Offices \$50.2B Transaction Value

#### Southeast

42 Offices \$41.4B Transaction Value

#### South-Central & Latin **Americas**

40 Offices \$30.0B Transaction Value

#### **Continental Europe**

118 Offices \$54.3B Transaction Value

## **North Asia**

33 Offices \$23.5B Transaction Value

#### Southeast Asia, India, Middle East, Africa

46 Offices \$10.9B Transaction Value

#### **Pacific**

23 Offices \$11.1B Transaction Value



Note: Affiliate offices not included in totals

# **CBRE Advisory Differentiation**

## For our Clients:

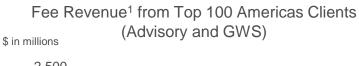
- Top producer talent
- Advisory platform, notably Digital & Technology
- Scale, connectivity and culture
- Global account management
- BETTER CLIENT OUTCOMES

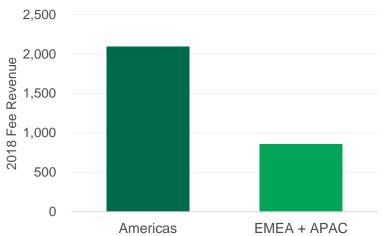
## For our Professionals:

- Differentiated Advisory platform, notably Digital & Technology
- Culture and connectivity
- Enviable client roster and relationships
- Industry's deepest professional leadership team
- MORE SUCCESSFUL CAREERS



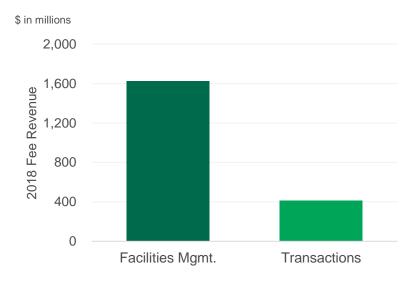
# Scale, Connectivity, Culture: Driving Client Value with Integrated, Global, Relationships





CBRE's global footprint allows us to do more for our largest clients in the Americas

## Fee Revenue<sup>1</sup> from Top 100 Facilities Mgmt. Clients



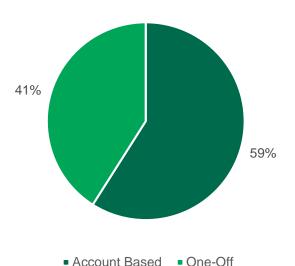
CBRE's best-in-class transaction capabilities enhances relationship with our largest Facilities Management clients



# **Account Based Leadership Demonstrates CBRE's Increasing Differentiation**

Almost 60% of Large Leasing Transactions Come From Account Based Relationships

> Top 25 US Office Occupier Leasing Transaction Mix - Entire Market1



CBRE Account Based Execution is a Relative Strength and Contributed to Share Gains

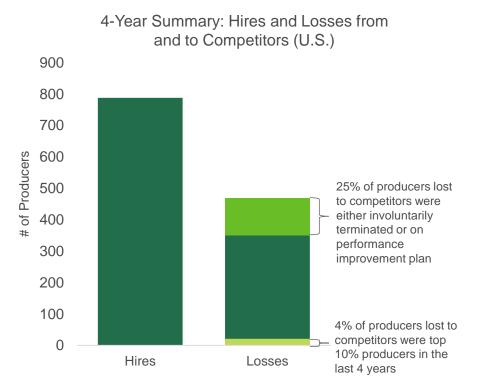
CBRE Americas Office Occupier Leasing Growth: 2016 to 2018



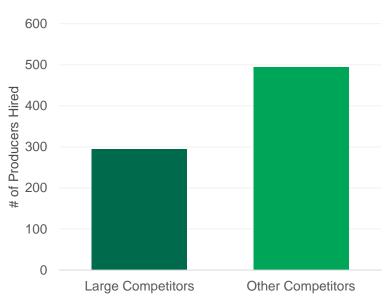


Market percentage measured in square feet of leasing transactions. Data represents Top 25 deals data for each market and is collected quarterly in local markets through joint efforts between CBRE market leaders, Sales Management and Research. Percentages above are estimates. Data may be incomplete and is not representative of the entire market. The information is meant to be used for directional purposes only.

# Differentiation Drives Competitive Advantage when Recruiting and Retaining Talent



Boutique Competitors are Increasingly Less Competitive



Note: Hires do not include hundreds of internal hires and hires from non-direct competitors



# 2019 CBRE INVESTOR DAY ADVISORY SERVICES CASE STUDY



# My Path to CBRE

## **Career Crossroads**

Joined CBRE in 2015 after starting career at a competitor



## **Occupier Client Expectations**

- Talent
  - Local
  - Global
- Thought leadership and innovation
- Advisory capabilities

- Tools/Technology/Data
- Leadership committed to:
  - Extraordinary client service
  - Results



# Leveraging CBRE's Investments in Advisory Capabilities

## Top Local Leadership

- Navigating the platform
- Ensuring client confidence



## **Workplace Strategy**

- Driving management consensus
- Defining the new paradigm



Investment in Advisory capabilities drive better client outcomes

## **Labor Analytics**

- Key differentiator
- Establishing parameters for initiatives



## **Financial Consulting Group**

- Navigating P&L ramifications
- Aligning financial reporting requirements



Investments are differentiated within the industry and provide a competitive advantage









## **Challenges**

- City National Bank at capacity in 450,000 SF headquarters
- Rapid growth of LA-based business units
- CNB recently merged into Royal Bank of Canada

## **CBRE Services Engaged**

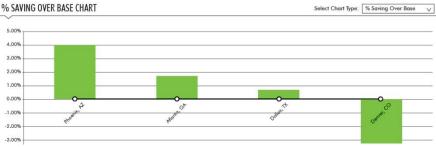
- Workplace
- Labor Analytics
- Financial Consulting Group



## **Labor Analytics**

Cost Calculator: Calculate savings across markets for various occupations and headcounts. Compare cost savings opportunities across markets.





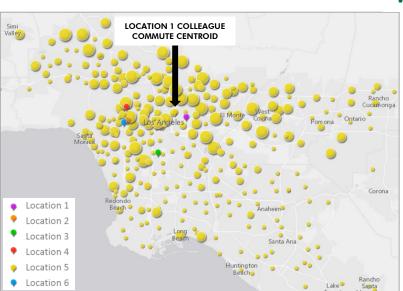
ROI Business Calculator: Estimate total return and savings including up front costs for labor (e.g., severance, relocation) as well as real estate (e.g., real or personal property costs).

#### SUMMARY Number Format: O\$ PER K SPER M Currency (1 USD = 1.26 CAD): USD OCAD UP FRONT COSTS (ONE-TIME EXPENSES) ANNUAL COSTS (RECURRING EXPENSES) MARKET LABOR ESTATE OTHER TOTAL MARKET LABOR ESTATE TOTAL \$0.0 M \$4.0 M \$0.3 M \$4.2 M Atlanta, GA \$0.0 M \$0.0 M \$0.0 M Atlanta, GA Dallas, TX \$1.6 M \$1.5 M \$0.0 M \$3.1 M Dallas, TX \$3.9 M \$0.3 M \$4.2 M \$1.6 M \$1.5 M \$0.0 M \$3.1 M \$4.0 M \$0.3 M \$4.3 M Phoenix, AZ Phoenix, AZ Denver, CO \$1.6 M \$1.5 M \$0.0 M \$3.1 M Denver, CO \$0.3 M \$4.4 M

| ANNUAL SAVINGS | (ANNUAL COST DIFFERENTIAL VS. BASE MARKET) |                |         |  |  |
|----------------|--|----------------|---------|--|--|
| MARKET         | LABOR                                      | REAL<br>ESTATE | TOTAL   |  |  |
| Atlanta, GA    | \$0.0 M                                    | \$0.0 M        | \$0.0 M |  |  |
| Dallas, TX     | \$0.0 M                                    | \$0.0 M        | \$0.0 M |  |  |
| Phoenix, AZ    | \$0.0 M                                    | \$0.0 M        | \$0.0 M |  |  |
| Denver, CO     | \$0.2 M                                    | \$0.0 M        | \$0.2 M |  |  |

| MARKET      | CASH PAYBACK<br>PERIOD | NPV SAVINGS<br>VS. BASE | ROI   |
|-------------|------------------------|-------------------------|-------|
| Atlanta, GA | N/A                    | \$0.0 M                 | 0     |
| Dallas, TX  | 156.5 years            | \$2.8 M                 | -90%  |
| Phoenix, AZ | -81.4 years            | \$3.0 M                 | -97%  |
| Denver, CO  | -16.1 years            | \$3.7 M                 | -118% |

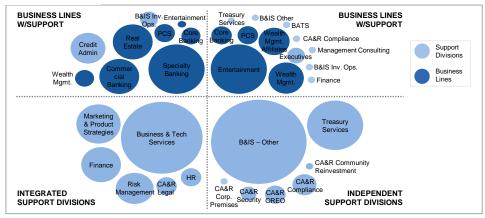


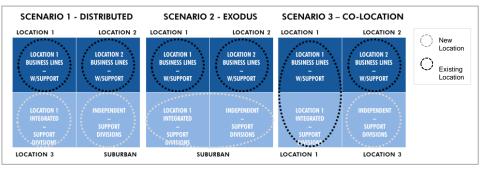


**Adjacency & Location Assessment** and Key Findings



## Workplace





|  |  | —— Finan   | cial Consulti  | na Grour               | · —                   |                         |                       |
|--|--|--|--|------------------------|-----------------------|-------------------------|-----------------------|
|  |  | i illali   | ciai consulti  | ing Group              | ,                     |                         |                       |
| Scenario<br>Building Address   | Option 1<br>8 Floors (231,589 SF)                            | Option 2<br>6 Floors (185,677 SF)                            | <u>Option 3</u><br>5 Floors (160,304 SF)                     | \$300,000,000          |                       |                         |                       |
|  |  |  |  |                        | \$266,145,941         |                         |                       |
| Rentable Square Feet   | 145,760 RSF  | 139,577 RSF  | 110,089 RSF  |                        |                       |                         |                       |
| Lease Start  | 1/1/2000   | 1/1/2000   | 1/1/2000   | \$250,000,000          |                       |                         |                       |
| Lease Expiration   | 12/31/2015   | 12/31/2015   | 12/31/2015   |                        |                       | \$218,535,666           | \$200.677.38          |
| Lease Term (Months)  | 180 Months   | 180 Months   | 180 Months   | \$200,000,000          |                       |                         | \$200,677,30          |
| Initial Monthly Rent (PSF)<br>Increase, If Any<br>Free Rent  | \$32.10 FSG w/ 2018 Base Year<br>3.00% Annually<br>13 Months | \$32.10 FSG w/ 2018 Base Year<br>3.00% Annually<br>13 Months | \$32.10 FSG w/ 2018 Base Year<br>3.00% Annually<br>13 Months |                        |                       |                         |                       |
| Capital & Other Expenses (PRSF)<br>Total TI/Moving Costs<br>Total TI/Moving Allowance<br>Total Our-of-Pocket | \$200.00<br>(\$100.00)<br>\$100.00                           | \$200.00<br>(\$100.00)<br>\$100.00                           | \$200.00<br>(\$100.00)<br>\$100.00                           | \$150,000,000          | \$108,006,402         | \$00.054.033            |                       |
| PRE-TAX NET PRESENT VALUE @ 8.0%   |  |  |  | \$100,000,000          | -                     | \$98,654,623            | \$85,688,501          |
| NPV of Total Occupancy Costs<br>NPV Differential (%)   | \$108,006,402<br>Base Line                                   | \$ <b>98,654,623</b><br>-12%                                 | \$85,688,501<br>-20%   |                        |                       |                         |                       |
| NPV Per Rentable Square Foot<br>NPV Differential Per RSF (%)   | \$419<br>Base Line   | \$427<br>3%  | \$436<br>4%  | \$50,000,000           | _                     |                         |                       |
| TOTAL OCCUPANCY COSTS (NON-DISCOUNTI   | ED)  |  |  |                        |                       |                         |                       |
| Total Pre-Tax Occupancy Costs<br>Pre-Tax Occupancy Cost Differential (%)                                     | \$266,145,941<br>Base Line                                   | \$218,535,666<br>-13%  | \$200,677,382<br>-20%  | \$0                    | Option 1              | Option 2                | Option 3              |
| Annual Average Total Occupancy Costs<br>Monthly Average Total Occupancy Costs PSF                            | \$10,485,141<br>\$3.75                                       | \$7,752,211<br>\$3.79  | \$6,314,227<br>\$3.83  |                        | 8 Floors (231,589 SF) | 6 Floors (185,677 SF)   | 5 Floors (160,304 SF) |
| GAAP PROFIT & LOSS (TOTAL, NON-DISCOUNTED)   |  |  |  | Pre-Tax Net Present Va | lue @ 8.0%            | Pre-Tax Occupancy Costs |                       |
| EBITDA Impact EBITDA Impact Differential (%)   | \$190,733,908<br>Base Line                                   | \$151,945,509<br>-14%  | \$132,990,521<br>-20%  |                        | _                     | _                       |                       |
| EBT Impact / Total Pre-Tax (Profit) & Loss<br>EBT Impact Differential (%)                                    | \$230,180,935<br>Base Line                                   | \$201,502,647<br>-13%  | \$150,618,354<br>-20%  |                        |                       |                         |                       |





## 606,000 SF Headquarters Solution

## \$140 Million+ in Savings

- Increased seat capacity by 37%
- Increased space requirement by 15%
- Secured prominent building top signage on two landmark towers
- New space accommodated faster growth
- Minimized colleague disruption
- Allowed retention and expansion of colleague base





## **New Efficient Flexible Workspace**











## **CBRE-Driven Professional Success**

## **Dramatically Increased Productivity**

95 transactions in 3M square feet in 10 countries

## **Energized Professional Engagement**

- Top 300 each year
- Colbert Coldwell Circle (top 3%) (2017, 2016)
- Edward S. Gordon Award winner

## **Prolonged Career Horizon**



# 2019 CBRE INVESTOR DAY GLOBAL WORKPLACE SOLUTIONS



## **Global Workplace Solutions**

# Account-Based Contractual Business

- 4 Major Service Offerings
- **49,000** Employees
- 100+ Countries
- 500+ Contractual Client Portfolios
- 95% Client Satisfaction

### **Mission**

Create measurably superior client outcomes by improving occupant experiences through safe, engaging and high performing workplaces.

# Integrated Account Solutions Comprising Four Major Service Lines

Facilities Management

Project Management Advisory & Transactions

3.3B

square feet

17.4M occupants

\$25.4B

managed capital projects

**1,901** project managers

130

client portfolios managed

160,000

leases managed

**Consulting & Analytics** 



## CBRE Reorganization – Global Workplace Solutions Impact

- **Business model.** Creates a clear structure of our global operating model, lines of business and client outcomes
- **Accountability.** Creates strong lines of accountability and authority within our accountsbased business
- **Transparency.** Provides visibility into the growth, performance and margins of our Global Workplace Solutions business
- **Clients.** Aligns customer and market buying behavior with how we present segment performance to external audiences



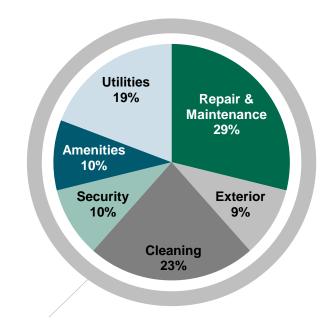
# FACILITIES MANAGEMENT



## **Large and Growing Facilities Management Market**

- Long-term, performance-based management contracts
- Proven to create value:
  - Simplification
  - Cost Reduction
  - Risk Reduction
  - Consistency/Globalization
  - Speed & Agility
- Increasing differentiation in our fully integrated facilities management model
- \$100B+ addressable market projected to grow >6% per annum

### TYPICAL OFFICE PORTFOLIO EXPENSE



**FM OPERATIONS & MANAGEMENT** 



## **CBRE's Facilities Management Differentiation**

FM **PRODUCT Enterprise FM** Local/Technical On Demand FM **MODELS CBRE Account Management CBRE CBRE PROVEN Energy Self Perform Subcontract GLOBAL DELIVERY Building Maintenance** Cleaning, Exterior, Security, **Energy Management and** APPROACH Adjacent Technical Services\* Elevators, Pest, HVAC, etc. **Energy Projects** Experience Services\*\* **FacilitySource** DIGITAL & TECHNOLOGY and FM BACK OFFICE **CURRENT** Global Critical Account Supply CBRE Capability Management Environments Chain **ADVANTAGES** 



# PROJECT MANAGEMENT



## **Project Management: Bridge Between Transactions and Facilities**

Advisory & FF&E / Post-Build Transaction Consulting Design Fit-out occupancy Services Cost consulting · Architecture and Procurement & Procurement & Commissioning budgeting and mgmt engineering budgeting Client Energy / efficiency • Master planning Permitting Installation management planning management Stakeholder Stakeholder Move Occupancy mgmt management management Stakeholder management management Capital planning Project controls · Facility condition assessment Supply chain management · Principal Programs IT project management Program management Project Management within CBRE



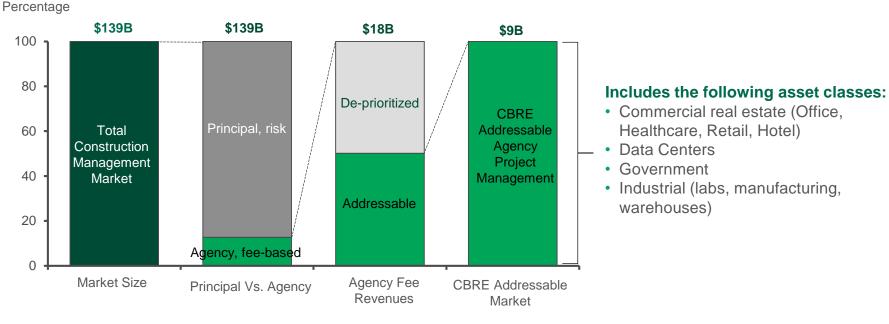
Facilities

Mgmt.

## **Large and Growing Project Management Market**

- In the US alone, CBRE operates in a \$9B fee-based Project Management market
- CBRE has <10% market share with significant opportunity</li>

## U.S. Outsourced Project Management Addressable Market Breakout (As of December 31, 2017)





# GLOBAL WORKPLACE SOLUTIONS POSITIONED FOR GROWTH



## **Macro and Industry Trends Continue to Favor Growth for GWS**

In a typical year, new clients drive ~40% of growth

...while existing clients drive ~60% of growth



New clients and sectors

Whirlpool



Adjacent Offerings

**Uber** 



**Expanded Geographies** 

ExonMobil



**Expanded Asset Type** 





**Expanded Service Lines** 

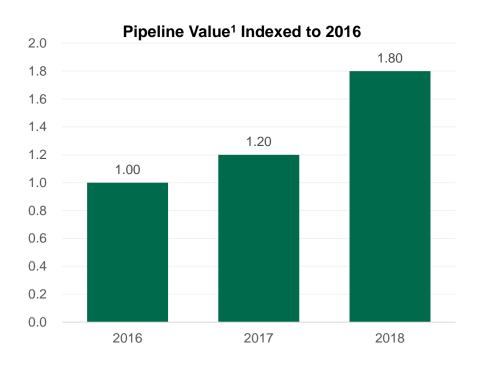


- Today, GWS has an estimated 30% share of wallet across all clients
- Continue to expect double-digit revenue growth for the foreseeable future



### **Record Pipeline Growth**

### Global Workplace Solutions' Pipeline Has Nearly Doubled in Two Years



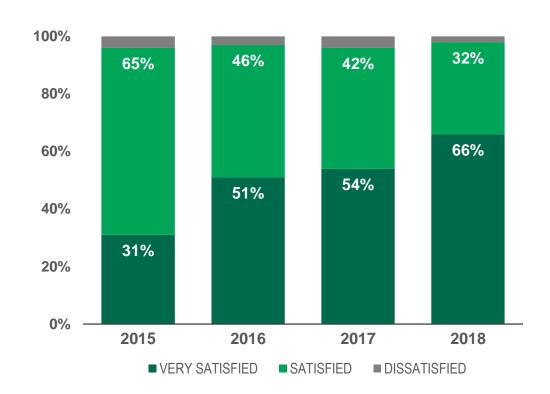
- Embedded sales leaders in each of our Divisions
- Continued strong pipeline in vertical markets such as Financial Services and Technology
- Momentum into Life Sciences, Industrial & Manufacturing and Retail
- Focused on engaging with clients as long-term strategic partners
- Large, global deals represent ~70% of pipeline opportunities



## Strong Client Satisfaction Drive "Dark Green" Dividend

### Global Client Satisfaction Scores have continually risen in the last 3 years

- Annual survey administered by an independent third party
- High client satisfaction correlates to strong renewal rates and expansion opportunities
  - 90%+ renewal of expiring fee revenue
  - Off-market expansion opportunities





## In Summary...



Large and growing outsourcing markets provide significant headway for growth



Integrated account model and new adjacent services drive continued differentiation



**Momentum** demonstrated through pipeline growth and improved client outcomes



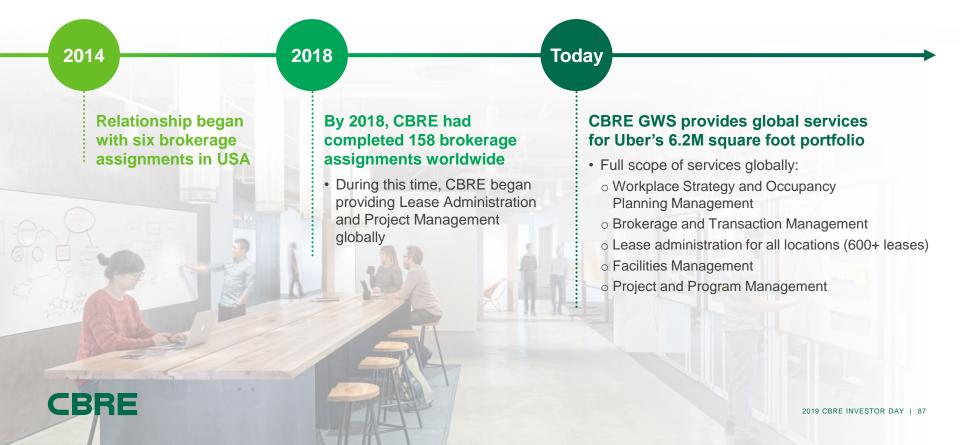
# 2019 CBRE INVESTOR DAY

**Understanding Global Workplace Solutions:** 

A Case Study of the CBRE/Uber Relationship



# The CBRE & Uber Relationship Spans 71 Countries



# **Understanding Portfolio Transactions and Project Mgmt.**

Supporting Uber's real estate needs in locations worldwide



# Advisory & Transaction Example

(Midtown Manhattan)

### Services:

- Comprehensive location strategy, including a commuter impact study
- Tenant representation of 35K square foot office lease

### Results:

- Selected more centrally located office which reduced the average employee commute time by ~30%
- Increased tech talent retention
- Provided attractive lease terms, with significant ability to grow over time



# Project Management Example

(Seattle, Washington)

### Services:

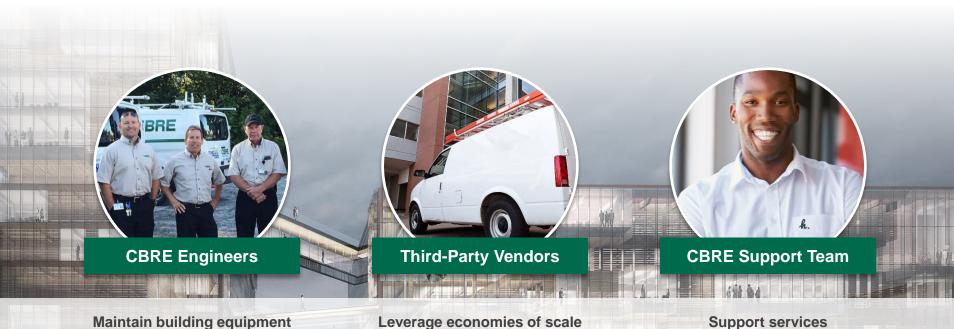
Comprehensive project management for several key projects in Seattle

### Results:

- Completed multiple projects for driver hub facilities ("Uber Green Light" locations)
- Completed 2 full 23K SF Engineering floors; 3+ more floors underway
- Constructed and furnished 12K SF of swing space for 98 FTEs in 4 weeks
- Upgraded 300+ workstations to sit/stand on two occupied floors
- Planning for relocation of reception area and rework of elevators



# **Facilities Management Example**

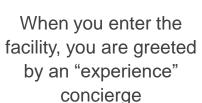


Maintain building equipment (e.g., HVAC, lighting, plumbing, building controls) Leverage economies of scale for service contracts (e.g., janitorial, landscaping)

(e.g., Host, supply chain, safety, accounting)

# The Expanding Definition of Facilities Management: Experience Services







On your way to your meeting, you take notice of the clean surroundings



Your walk includes taking a modern elevator to one of the higher floors in the building



"It just works."
The temperature and air quality are both pleasant



# The Expanding Definition of Facilities Management: Experience Services



You notice your meeting space's unique set up



All AV, refreshments, etc., are ready



During a break, you are offered snacks from Uber's coffee bar



At the end of the meeting, the experience concierge returns your coat



# **Introducing CBRE host**













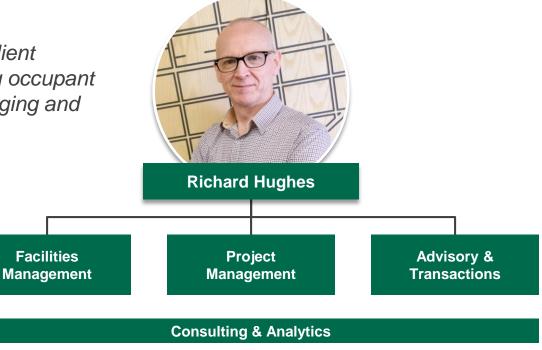




## The GWS Account Management Model

### Our Mission:

Creating measurably superior client outcomes for Uber by improving occupant experiences through safe, engaging and high performing workplaces.





# FOOTNOTES AND GAAP RECONCILIATION TABLES



### **Debt & Leverage**

| (\$ in millions)                 | <b>December 31, 2018</b> |
|----------------------------------|--------------------------|
| Cash <sup>1</sup>                | \$ 622                   |
| Revolving credit facility        | -                        |
| Senior term loans <sup>2</sup>   | 751                      |
| Senior notes <sup>2</sup>        | 1,015                    |
| Other debt <sup>3,4</sup>        | 4                        |
| Total debt                       | \$ 1,770                 |
| Total net debt <sup>5</sup>      | \$ 1,148                 |
| TTM Adjusted EBITDA <sup>6</sup> | \$ 1,905                 |
| Net debt to TTM Adjusted EBITDA  | 0.60x                    |

- 1. Excludes \$155.2 million of cash in consolidated funds and other entities not available for company use at December 31, 2018.
- Outstanding amount is reflected net of unamortized debt issuance costs.
- 3. Excludes \$1,328.8 million of warehouse facilities for loans originated on behalf of the FHA and other government sponsored enterprises outstanding at December 31, 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 \$6.3 million at December 31, 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, costs associated with our reorganization, including cost-savings initiatives, 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.



### Non-GAAP Financial Measures

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

- fee revenue
- contractual fee revenue
- net income attributable to CBRE Group. Inc., as adjusted (which we also refer to as "adjusted net income")
- 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")
- 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.

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 Net Income to Adjusted Net Income and Adjusted Earnings Per Share

|  | Twelve Months Ended December 31, |            |      |          |      |         |      |          |      |          |                   |         |                   |          |
|--|----------------------------------|------------|------|----------|------|---------|------|----------|------|----------|-------------------|---------|-------------------|----------|
| (\$ in millions, except per share amounts)   |                                  | 2018       | 2017 |          | 2016 |         | 2015 |          | 2014 |          | 2013 <sup>2</sup> |         | 2012 <sup>2</sup> |          |
| Net income attributable to CBRE Group, Inc.  | \$                               | 1,063.2    | \$   | 697.1    | \$   | 573.1   | \$   | 547.1    | \$   | 484.5    | \$                | 316.5   | \$                | 315.6    |
| One-time gain associated with remeasuring an investment in an<br>unconsolidated subsidiary to fair value as of the date the remaining<br>controlling interest was acquired |                                  | (100.4)    |      | -        |      | -       |      | -        |      | -        |                   | -       |                   | -        |
| Non-cash depreciation and amortization expense related to certain assets attributable to acquisitions  |                                  | 113.1      |      | 112.9    |      | 111.1   |      | 86.6     |      | 66.1     |                   | 29.4    |                   | 37.2     |
| Write-off of financing costs on extinguished debt  |                                  | 28.0       |      | -        |      | -       |      | 2.7      |      | 23.1     |                   | 56.3    |                   | -        |
| Costs associated with our reorganization, including cost-savings initiatives   |                                  | 38.0       |      | -        |      | -       |      | -        |      | -        |                   | -       |                   | -        |
| Costs incurred in connection with litigation settlement  |                                  | 8.8        |      | -        |      | -       |      | -        |      | -        |                   | -       |                   | -        |
| Carried-interest incentive compensation (reversal) expense to align with the timing of associated revenue <sup>1</sup>   |                                  | (5.2)      |      | (8.5)    |      | (15.6)  |      | 26.1     |      | 23.8     |                   | 9.2     |                   | -        |
| Integration and other costs related to acquisitions  |                                  | 9.1        |      | 27.3     |      | 125.7   |      | 48.9     |      | -        |                   | 12.6    |                   | 39.2     |
| Cost-elimination expenses  |                                  | -          |      | -        |      | 78.5    |      | 40.4     |      | -        |                   | 17.6    |                   | 17.6     |
| Goodwill and other non-amortizable intangible asset impairment   |                                  | -          |      | -        |      | -       |      | -        |      | -        |                   | 98.1    |                   | 19.8     |
| Tax impact of adjusted items   |                                  | (44.2)     |      | (42.1)   |      | (93.2)  |      | (62.6)   |      | (36.4)   |                   | (65.4)  |                   | (30.0)   |
| Impact of U.S. tax reform  |                                  | 13.3       |      | 143.4    |      | -       |      | -        |      | -        |                   | -       |                   | -        |
| Adjusted net income  | \$                               | 1,123.7    | \$   | 930.1    | \$   | 779.6   | \$   | 689.2    | \$   | 561.1    | \$                | 474.3   | \$                | 399.4    |
| Adjusted diluted earnings per share  | \$                               | 3.28       | \$   | 2.73     | \$   | 2.30    | \$   | 2.05     | \$   | 1.68     | \$                | 1.43    | \$                | 1.22     |
| Weighted average shares outstanding for diluted income per share   | 34                               | 13,122,741 | 340, | ,783,556 | 338  | 424,563 | 336  | ,414,856 | 334  | ,171,509 | 331,              | 762,854 | 327,              | ,044,154 |

<sup>1.</sup> Carried-interest incentive compensation expense is related to funds that began recording carried interest expense in Q2 2013 and beyond.

<sup>2.</sup> Includes discontinued operations.



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

|   | Twelve Months Ended December 31, |             |             |             |            |            |  |  |  |  |  |  |  |
|---|----------------------------------|-------------|-------------|-------------|------------|------------|--|--|--|--|--|--|--|
| (\$ in millions)  | 2018                             | 2017        | 2016        | 2015        | 2014       | 2006       |  |  |  |  |  |  |  |
| Consolidated revenue  | \$ 21,340.1                      | \$ 18,628.8 | \$ 17,369.1 | \$ 10,855.8 | \$ 9,049.9 | \$ 4,032.0 |  |  |  |  |  |  |  |
| Less:  Client reimbursed costs largely associated with employees dedicated to client facilities and subcontracted vendor work performed for clients | 10,502.5                         | 9,219.8     | 8,644.8     | 3,125.5     | 2,258.6    | 289.7      |  |  |  |  |  |  |  |
| Consolidated fee revenue  | \$ 10,837.6                      | \$ 9,409.0  | \$ 8,724.3  | \$ 7,730.3  | \$ 6,791.3 | \$ 3,742.3 |  |  |  |  |  |  |  |
| Less: Non-contractual fee revenue   | 5,869.7                          | 5,137.0     | 4,942.6     | 4,730.4     | 4,324.0    | 3,026.0    |  |  |  |  |  |  |  |
| Contractual fee revenue <sup>1</sup>  | \$ 4,967.9                       | \$ 4,272.0  | \$ 3,781.7  | 2,999.9     | 2,467.3    | \$ 716.3   |  |  |  |  |  |  |  |
|   |                                  |             |             |             |            |            |  |  |  |  |  |  |  |
| Consolidated fee revenue  | \$ 10,837.6                      | \$ 9,409.0  | \$ 8,724.3  | \$ 7,730.3  | \$ 6,791.3 |            |  |  |  |  |  |  |  |
| Adjusted net income   | \$ 1,123.7                       | \$ 930.1    | \$ 779.6    | \$ 689.2    | \$ 561.1   |            |  |  |  |  |  |  |  |
| Adjusted profit margin  | 10.4%                            | 9.9%        | 8.9%        | 8.9%        | 8.3%       |            |  |  |  |  |  |  |  |

Note: 2016 and 2017 figures were restated for ASC 606. We have not made a similar restatement for 2006, 2014 and 2015, and such periods continue to be reported under the accounting standards in effect for such periods. 2018 figures reflect ASC 606.

<sup>1.</sup> We have changed our definition of contractual fee revenue to exclude carried interest revenue. All prior periods have been restated to conform to this new definition. In addition, we have modified the revenue included in contractual revenue to exclude from contractual revenue all revenue from our GWS leasing business. This change has been reflected for 2017, 2018, and 2019E (periods prior to 2017 have not been adjusted for this change). Contractual fee revenue now refers to fee revenue derived from our GWS business (excluding leasing), Property & Advisory Project Management business, contractual REI revenue as well as from our valuation and loan servicing businesses.



## Reconciliation of Revenue to Fee Revenue and Adjusted Revenue by Segment

| _  | Twelve Months Ended December 31, 2018 |        |                   |          |                            |          |  |  |  |  |
|--|---------------------------------------|--------|-------------------|----------|----------------------------|----------|--|--|--|--|
| (\$ in millions)   | Advisor<br>Services                   | -      | Global W<br>Solut |          | Real Estate<br>Investments |          |  |  |  |  |
| Consolidated revenue   | \$ 8,                                 | ,243.0 | \$                | 12,562.4 | ;                          | \$ 534.7 |  |  |  |  |
| Less:  |                                       |        |                   |          |                            |          |  |  |  |  |
| Client reimbursed costs largely associated with employees dedicated to client facilities and subcontracted vendor work performed for clients | 1,                                    | ,043.8 |                   | 9,458.8  |                            | -        |  |  |  |  |
| Consolidated fee revenue   | \$ 7,                                 | ,199.2 | \$                | 3,103.6  | \$                         | 534.7    |  |  |  |  |
| Consolidated Revenue   |                                       |        |                   |          | \$                         | 534.7    |  |  |  |  |
| Add:   |                                       |        |                   |          |                            |          |  |  |  |  |
| Equity income from unconsolidated subsidiaries   |                                       |        |                   |          |                            | 302.4    |  |  |  |  |
| Gain on disposition of real estate   |                                       |        |                   |          |                            | 14.9     |  |  |  |  |
| Less:  |                                       |        |                   |          |                            |          |  |  |  |  |
| Non-controlling interest   |                                       |        |                   | _        |                            | 0.1      |  |  |  |  |
| Adjusted Revenue   |                                       |        |                   |          |                            | 851.9    |  |  |  |  |



### Reconciliation of Net Income to EBITDA and Adjusted EBITDA

|  | Twelve Months Ended December 31, |         |    |         |    |         |    |         |    |         |    |         |    |       |
|--|----------------------------------|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-------|
| (\$ in millions)   |                                  | 2018    | 2  | 2017    |    | 2016    | :  | 2015    |    | 2014    | 2  | 2013    | 20 | )12¹  |
| Net income attributable to CBRE Group, Inc.  | \$                               | 1,063.2 | \$ | 697.1   | \$ | 573.1   | \$ | 547.1   | \$ | 484.5   | \$ | 316.5   | \$ | 315.6 |
| Add:   |                                  |         |    |         |    |         |    |         |    |         |    |         |    |       |
| Depreciation and amortization  |                                  | 452.0   |    | 406.1   |    | 366.9   |    | 314.1   |    | 265.1   |    | 191.3   |    | 170.9 |
| Interest expense   |                                  | 107.3   |    | 136.8   |    | 144.9   |    | 118.9   |    | 112.0   |    | 138.4   |    | 176.6 |
| Write-off of financing costs on extinguished debt  |                                  | 28.0    |    | -       |    | =       |    | 2.7     |    | 23.1    |    | 56.3    |    | -     |
| Provision for income taxes   |                                  | 313.0   |    | 467.8   |    | 296.9   |    | 320.8   |    | 263.8   |    | 188.6   |    | 186.3 |
| Non-amortizable intangible asset impairment  |                                  | -       |    | -       |    | -       |    | -       |    | -       |    | 98.1    |    | 19.8  |
| Less:  |                                  |         |    |         |    |         |    |         |    |         |    |         |    |       |
| Interest income  |                                  | 8.6     |    | 9.8     |    | 8.1     |    | 6.3     |    | 6.2     |    | 6.3     |    | 7.6   |
| EBITDA   | \$                               | 1,954.9 | \$ | 1,698.0 | \$ | 1,373.7 | \$ | 1,297.3 | \$ | 1,142.3 | \$ | 982.9   | \$ | 861.6 |
| Adjustments:   |                                  |         |    |         |    |         |    |         |    |         |    |         |    |       |
| One-time gain associated with remeasuring an investment<br>in an unconsolidated subsidiary to fair value as of the date<br>the remaining controlling interest was acquired |                                  | (100.4) |    | -       |    | -       |    | -       |    | -       |    | -       |    | -     |
| Costs associated with our reorganization, including cost-<br>savings initiatives   |                                  | 38.0    |    | -       |    | -       |    | -       |    | -       |    | -       |    | -     |
| Costs incurred in connection with litigation settlement  |                                  | 8.8     |    | -       |    | =       |    | -       |    | -       |    | -       |    | -     |
| Cost-elimination expenses  |                                  | -       |    | -       |    | 78.4    |    | 40.4    |    | -       |    | 17.6    |    | 17.6  |
| Carried interest incentive compensation (reversal) expense to align with the timing of associated revenue <sup>2</sup>   |                                  | (5.2)   |    | (8.5)   |    | (15.5)  |    | 26.1    |    | 23.8    |    | 9.2     |    | -     |
| Integration and other costs related to acquisitions  |                                  | 9.1     |    | 27.3    |    | 125.7   |    | 48.9    |    | -       |    | 12.6    |    | 39.2  |
| Adjusted EBITDA  | \$                               | 1,905.2 | \$ | 1,716.8 | \$ | 1,562.3 | \$ | 1,412.7 | \$ | 1,166.1 | \$ | 1,022.3 | \$ | 918.4 |

<sup>1.</sup> Includes an immaterial amount of activity from discontinued operations.

This expense has only been adjusted for funds that incurred carried interest expense for the first time in Q2 2013 or in subsequent quarters.

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.

### Reconciliation of Revenue to Fee Revenue

| (\$ in millions)  | Twelve Months Ended December 31, 2018 |                           |  |  |  |  |  |  |
|---|---------------------------------------|---------------------------|--|--|--|--|--|--|
|   | Americas                              | EMEA & APAC               |  |  |  |  |  |  |
| Fee Revenue: 100 Largest Americas Clients Advisory & GWS Client reimbursed costs largely associated with employees dedicated to client facilities and | \$ 2,094.2                            | \$ 857.3                  |  |  |  |  |  |  |
| subcontracted vendor work performed for clients   | 3,988.6                               | 1,100.5                   |  |  |  |  |  |  |
| Revenue: 100 Largest Americas Clients Advisory & GWS  | \$ 6,082.8                            | \$ 1,957.8                |  |  |  |  |  |  |
|   | Facilities Management                 | Transactions <sup>1</sup> |  |  |  |  |  |  |
| Fee Revenue: 100 Largest Facilities Management Clients Client reimbursed costs largely associated with employees dedicated to client facilities and   | \$ 1,625.1                            | \$ 411.7                  |  |  |  |  |  |  |
| subcontracted vendor work performed for clients   | 5,963.7                               | 43.6                      |  |  |  |  |  |  |
| Revenue: 100 Largest Facilities Management Clients  | \$ 7,588.8                            | \$ 455.3                  |  |  |  |  |  |  |

Transactions fee revenue includes leasing, property sales and commercial mortgage origination.



### **Footnotes**

Note – We have not reconciled the consolidated adjusted net income margin and adjusted EBITDA guidance included 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 costs related to acquisitions, 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. Consolidated gross revenue for 2019 is expected to be up 8% to 10% as compared to 2018, while consolidated fee revenue for 2019 is expected to be up 7% to 9% as compared to 2018.

In the first quarter of 2018, the company adopted new revenue recognition guidance. Restatements have been made to 2017 and 2016 financial data included in this presentation on slides 4, 5, 6, 7, 99, 100 and 102 to conform with the 2018 presentation. Financial data for periods prior to 2016 have not been restated and continue to be reported under the accounting standards in effect for the relevant period. Accordingly, such prior period amounts should not be compared with the restated financial data for 2016 and 2017 and the reported financial data for 2018. Although we believe that any prior period amounts would not be significantly different if we had restated such periods to conform with the 2018 presentation, there can be no assurance that there would not be a difference, and any such difference may be material.

#### Slide 4

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 1. interest, depreciation and amortization expense related to certain assets attributable to acquisitions, integration and other costs related to acquisitions, costs associated with our reorganization, including cost-savings initiatives, costs incurred in connection with a litigation settlement, write-off of financing costs on extinguished debt, cost-elimination expenses, goodwill and other non-amortizable intangible asset impairment and certain carried interest incentive compensation (reversal) expense to align with the timing of associated revenue as well as adjusts the provision for income taxes for such charges. Adjusted EPS also excludes the tax impact of U.S. tax reform initially recorded in the fourth quarter of 2017 and finalized during 2018. All EPS information is based on diluted shares.

#### Slide 5

- Fee Revenue is gross revenue less both client reimbursed costs largely associated with our employees that are dedicated to client facilities and subcontracted vendor work performed for clients.
- We have changed our definition of contractual fee revenue to exclude carried interest revenue. All prior periods have been restated to conform to this new definition. In addition, we have modified the revenue included in contractual revenue to exclude from contractual revenue all revenue from our GWS leasing business. This change has been reflected for 2017, 2018, and 2019E (periods prior to 2017 have not been adjusted for this change). Contractual fee revenue now refers to fee revenue derived from our GWS business (excluding leasing), Property & Advisory Project Management business, contractual REI revenue as well as from our valuation and loan servicing businesses.

#### Slide 8

- 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.
- EBITDA represents earnings before net interest expense, write-off of financing costs on extinguished debt, income taxes, depreciation and amortization. Amounts shown for adjusted EBITDA further remove (from EBITDA) the impact of certain cash and non-cash items related to acquisitions, costs associated with our reorganization, including cost-savings initiatives, certain carried interest incentive compensation reversal to align with the timing of associated revenue and other non-recurring costs.
- Revenue and fee revenue are the same amount for REI as this segment does not have client reimbursed costs. Adjusted fee revenue is Real Estate Investments fee revenue plus equity income from unconsolidated subsidiaries and gain on disposition of real estate, net of non-controlling interest. We believe that investors may find this measure useful to analyze the financial performance of our Real Estate Investments segment because it is more reflective of its total operations. See reconciliation on slide 101.



### **Footnotes**

#### Slides 10, 11, 48

- 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.
- EBITDA represents earnings before net interest expense, write-off of financing costs on extinguished debt, income taxes, depreciation and amortization. Amounts shown for adjusted EBITDA further remove (from EBITDA) the impact of certain cash and non-cash items related to acquisitions, costs associated with our reorganization (including cost-savings initiatives) and other non-recurring costs,

#### Slide 12

EBITDA represents earnings before net interest expense, write-off of financing costs on extinguished debt, income taxes, depreciation and amortization. Amounts shown for adjusted EBITDA further remove (from EBITDA) the impact of costs associated with our reorganization (including cost-savings initiatives) and certain carried interest incentive compensation reversal to align with the timing of associated revenue.

#### Slide 14

- Adjusted D&A expense removes certain depreciation and amortization expense related to certain acquisitions.
- Adjusted Tax Rate is the effective tax rate on adjusted pre-tax income after removing net income attributable to non-controlling interests.

### Slide 17

- As of 12/31/18
- Net debt is calculated as total debt (excluding non-recourse debt) less available cash for company use. Calculation represents net debt at December 31, 2018 divided by adjusted EBITDA for FY2018. See slide 97.

#### Slide 37

- As of December 31, 2018, Assets under management (AUM) refers to the fair market value of real asset-related investments with respect to which CBRE Global Investors provides, on a global basis, oversight, investment management services and other advice and which generally consist of investments in real assets; equity in funds and joint ventures; securities portfolios; operating companies and real asset-related loans. This AUM is intended principally to reflect the extent of CBRE Global Investors' presence in the global real asset market, and its calculation of AUM may differ from the calculations of other investment or asset managers.
- In process figures include Long-Term Operating Assets (LTOA) of \$30M for Q4 2018. \$151M for Q4 2017. \$152M for Q4 2015. \$273M for Q4 2014 and \$851M 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.

#### Slide 39

- As of December 31, 2018. Assets under management (AUM) refers to the fair market value of real asset-related investments with respect to which CBRE Global Investors provides, on a global basis, oversight, investment management services and other advice and which generally consist of investments in real assets; equity in funds and joint ventures; securities portfolios; operating companies and real asset-related loans. This AUM is intended principally to reflect the extent of CBRE Global Investors' presence in the global real asset market, and its calculation of AUM may differ from the calculations of other investment or asset managers.
- As of December 31, 2018. Investment by Region refers to the regional mandate and/or the location of the underlying investment. AUM by investment type refers to the allocation of assets across the four primary segments: Private Real Estate, Securities, Private Infrastructure and Other. AUM by Strategy refers to the allocation of assets among strategies. Core / Core Plus generally refers to investment strategies that include stabilized investments, with a moderate return and leverage profile. Enhanced Return generally refers to value-add and opportunistic investment strategies with a higher return and leverage profile. Allocation figures are subject to change and may not sum due to rounding.



### **Footnotes**

### Slide 42

- In process as of December 31, 2018.
- In process figures include Long-Term Operating Assets (LTOA) of \$30M for Q4 2018, \$151M for Q4 2017, \$152M for Q4 2016, \$152M for Q4 2015, \$273M for Q4 2014 and \$851M 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.
- 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.

#### Slide 51

Top 20 U.S. markets as defined by RCA. Markets include New York City Metro, Los Angeles Metro, San Francisco Metro, Washington D.C. Metro, Dallas, Chicago, Atlanta, Boston Metro, Miami/South Florida, Houston, Seattle, Phoenix, Denver, San Diego, Philadelphia Metro, Orlando, Las Vegas, Austin, Charlotte and Tampa.

#### Slide 52

Top 20 U.S. markets as defined by RCA, Markets include New York City Metro, Los Angeles Metro, San Francisco Metro, Washington D.C. Metro, Dallas, Chicago, Atlanta, Boston Metro, Miami/South Florida, Houston, Seattle, Phoenix, Denver, San Diego, Philadelphia Metro, Orlando, Las Vegas, Austin, Charlotte and Tampa. Leasing data represents the same top 20 markets as defined by RCA but with market boundaries defined by CBRE research.

### Slide 59

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 83

GWS pipeline is defined as the GWS pursuits where a prospect has requested a formal pricing proposal from CBRE, either via a formal RFP process or via an off-market proposal. Pipeline includes both new prospect pursuits, as well as expansion opportunities with existing clients. Pipeline excludes early stage client cultivation activities and client contracts up for renewal.

