UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended March 31, 2020

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the Transition Period from ______________ to ______________

Commission File Number

001-32205

CBRE GROUP, INC.
(Exact name of registrant as specified in its charter)

Delaware **(State or other jurisdiction of incorporation or organization)**	**94-3391143** **(I.R.S. Employer Identification Number)**
400 South Hope Street, 25th Floor **Los Angeles, California** **(Address of principal executive offices)**	**90071** **(Zip Code)**
(213) 613-3333 **(Registrant's telephone number, including area code)**	

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A Common Stock, $0.01 par value per share	"CBRE"	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The number of shares of Class A common stock outstanding at April 27, 2020 was 335,166,810.

FORM 10-Q

March 31, 2020

TABLE OF CONTENTS

PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

CBRE GROUP, INC.
CONSOLIDATED BALANCE SHEETS
(Unaudited)
(Dollars in thousands, except share data)

	March 31, 2020	December 31, 2019
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 628,451	$ 971,781
Restricted cash	104,244	121,964
Receivables, less allowance for doubtful accounts of $80,543 and $72,725 at March 31, 2020 and December 31, 2019, respectively	4,262,264	4,466,674
Warehouse receivables	1,273,259	993,058
Contract assets	329,988	328,012
Prepaid expenses	287,556	282,741
Income taxes receivable	88,153	93,915
Other current assets	289,672	276,319
Total Current Assets	7,263,587	7,534,464
Property and equipment, net	800,869	836,206
Goodwill	3,673,758	3,753,493
Other intangible assets, net of accumulated amortization of $1,390,807 and $1,358,528 at March 31, 2020 and December 31, 2019, respectively	1,339,786	1,379,546
Operating lease assets	997,793	997,966
Investments in unconsolidated subsidiaries	422,910	426,711
Non-current contract assets	200,673	201,760
Real estate under development	170,932	185,508
Deferred tax assets, net	89,046	73,864
Non-current income taxes receivable	29,510	139,136
Other assets, net	691,400	668,542
Total Assets	$ 15,680,264	$ 16,197,196
LIABILITIES AND EQUITY		
Current Liabilities:		
Accounts payable and accrued expenses	$ 2,365,003	$ 2,436,084
Compensation and employee benefits payable	1,237,963	1,324,990
Accrued bonus and profit sharing	693,806	1,261,974
Operating lease liabilities	183,159	168,663
Contract liabilities	106,995	108,671
Income taxes payable	81,758	30,207
Short-term borrowings:		
Warehouse lines of credit (which fund loans that U.S. Government Sponsored Enterprises have committed to purchase)	1,258,832	977,175
Other	5,208	4,534
Total short-term borrowings	1,264,040	981,709
Current maturities of long-term debt	1,718	1,814
Other current liabilities	130,984	122,339
Total Current Liabilities	6,065,426	6,436,451
Long-term debt, net of current maturities	1,754,518	1,761,245
Non-current operating lease liabilities	1,045,708	1,057,758
Non-current tax liabilities	92,119	85,966
Deferred tax liabilities, net	50,686	34,593
Non-current income taxes payable	40,562	93,647
Other liabilities	461,698	454,424
Total Liabilities	9,510,717	9,924,084
Commitments and contingencies	—	—
Equity:		
CBRE Group, Inc. Stockholders' Equity:		
Class A common stock; $0.01 par value; 525,000,000 shares authorized; 335,145,077 and 334,752,283 shares issued and outstanding at March 31, 2020 and December 31, 2019, respectively	3,351	3,348
Additional paid-in capital	1,026,768	1,115,944
Accumulated earnings	5,950,263	5,793,149
Accumulated other comprehensive loss	(851,039)	(679,748)
Total CBRE Group, Inc. Stockholders' Equity	6,129,343	6,232,693
Non-controlling interests	40,204	40,419
Total Equity	6,169,547	6,273,112
Total Liabilities and Equity	$ 15,680,264	$ 16,197,196

The accompanying notes are an integral part of these consolidated financial statements.

CBRE GROUP, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)
(Dollars in thousands, except share data)

	Three Months Ended March 31, 2020	Three Months Ended March 31, 2019
Revenue	$ 5,889,168	$ 5,135,510
Costs and expenses:		
Cost of revenue	4,712,674	4,022,034
Operating, administrative and other	790,066	792,876
Depreciation and amortization	113,794	105,823
Asset impairments	75,171	89,037
Total costs and expenses	5,691,705	5,009,770
Gain on disposition of real estate	22,827	19,247
Operating income	220,290	144,987
Equity income from unconsolidated subsidiaries	20,631	72,664
Other (loss) income	(193)	20,853
Interest expense, net of interest income	16,016	21,192
Write-off of financing costs on extinguished debt	—	2,608
Income before provision for income taxes	224,712	214,704
Provision for income taxes	51,182	43,878
Net income	173,530	170,826
Less: Net income attributable to non-controlling interests	1,335	6,417
Net income attributable to CBRE Group, Inc.	$ 172,195	$ 164,409
Basic income per share:		
Net income per share attributable to CBRE Group, Inc.	$ 0.51	$ 0.49
Weighted average shares outstanding for basic income per share	334,969,826	336,020,431
Diluted income per share:		
Net income per share attributable to CBRE Group, Inc.	$ 0.51	$ 0.48
Weighted average shares outstanding for diluted income per share	339,737,911	340,158,399

The accompanying notes are an integral part of these consolidated financial statements.

CBRE GROUP, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited)
(Dollars in thousands)

	Three Months Ended March 31, 2020	Three Months Ended March 31, 2019
Net income	$ 173,530	$ 170,826
Other comprehensive (loss) income:		
Foreign currency translation (loss) gain	(172,374)	937
Amounts reclassified from accumulated other comprehensive loss to interest expense, net of tax	114	410
Unrealized losses on interest rate swaps, net of tax	—	(59)
Unrealized holding gains on available for sale debt securities, net of tax	909	755
Other, net	—	1
Total other comprehensive (loss) income	(171,351)	2,044
Comprehensive income	2,179	172,870
Less: Comprehensive income attributable to non-controlling interests	1,275	6,361
Comprehensive income attributable to CBRE Group, Inc.	$ 904	$ 166,509

The accompanying notes are an integral part of these consolidated financial statements.

CBRE GROUP, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)
(Dollars in thousands)

	Three Months Ended March 31, 2020	2019
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	$ 173,530	$ 170,826
Adjustments to reconcile net income to net cash used in operating activities:		
Depreciation and amortization	113,794	105,823
Amortization and write-off of financing costs on extinguished debt	1,501	4,175
Gains related to mortgage servicing rights, premiums on loan sales and sales of other assets	(52,373)	(53,517)
Asset impairments	75,171	89,037
Net realized and unrealized losses (gains), primarily from investments	193	(20,853)
Provision for doubtful accounts	9,059	1,867
Net compensation (reversal) expense for equity awards	(1,239)	29,271
Equity income from unconsolidated subsidiaries	(20,631)	(72,664)
Distribution of earnings from unconsolidated subsidiaries	29,185	77,158
Proceeds from sale of mortgage loans	3,595,631	4,453,797
Origination of mortgage loans	(3,859,407)	(4,646,348)
Increase in warehouse lines of credit	281,657	232,446
Tenant concessions received	13,292	3,464
Purchase of equity securities	(3,559)	(62,117)
Proceeds from sale of equity securities	4,925	25,730
Decrease (increase) in real estate under development	7,742	(3,356)
Decrease (increase) in receivables, prepaid expenses and other assets (including contract and lease assets)	52,796	(168,862)
Decrease in accounts payable and accrued expenses and other liabilities (including contract and lease liabilities)	(34,597)	(33,982)
Decrease in compensation and employee benefits payable and accrued bonus and profit sharing	(605,950)	(510,405)
Decrease (increase) in net income taxes receivable/payable	108,609	(11,344)
Other operating activities, net	(25,610)	(2,721)
Net cash used in operating activities	(136,281)	(392,575)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Capital expenditures	(62,241)	(56,979)
Acquisition of businesses, including net assets acquired, intangibles and goodwill, net of cash acquired	(25,897)	(2,142)
Contributions to unconsolidated subsidiaries	(32,155)	(23,562)
Distributions from unconsolidated subsidiaries	18,994	5,974
Other investing activities, net	9,068	2,771
Net cash used in investing activities	(92,231)	(73,938)

The accompanying notes are an integral part of these consolidated financial statements.

CBRE GROUP, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)
(Unaudited)
(Dollars in thousands)

	Three Months Ended March 31,	
	2020	**2019**
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from senior term loans	—	300,000
Repayment of senior term loans	—	(300,000)
Proceeds from revolving credit facility	331,671	507,000
Repayment of revolving credit facility	(331,701)	(171,000)
Repurchase of common stock	(50,028)	(45,088)
Acquisition of businesses (cash paid for acquisitions more than three months after purchase date)	(6,230)	(17,185)
Units repurchased for payment of taxes on equity awards	(36,873)	(9,186)
Non-controlling interest contributions	622	40,774
Non-controlling interest distributions	(497)	(1,347)
Other financing activities, net	(869)	(3,940)
Net cash (used in) provided by financing activities	(93,905)	300,028
Effect of currency exchange rate changes on cash and cash equivalents and restricted cash	(38,633)	(9,791)
NET DECREASE IN CASH AND CASH EQUIVALENTS AND RESTRICTED CASH	(361,050)	(176,276)
CASH AND CASH EQUIVALENTS AND RESTRICTED CASH, AT BEGINNING OF PERIOD	1,093,745	863,944
CASH AND CASH EQUIVALENTS AND RESTRICTED CASH, AT END OF PERIOD	$ 732,695	$ 687,668
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:		
Cash paid during the period for:		
Interest	$ 27,290	$ 33,606
Income tax (refunds) payments, net	$ (55,897)	$ 54,241

The accompanying notes are an integral part of these consolidated financial statements.

CBRE GROUP, INC.
CONSOLIDATED STATEMENTS OF EQUITY
(Unaudited)
(Dollars in thousands)

	CBRE Group, Inc. Shareholders					
	Class A common stock	Additional paid-in capital	Accumulated earnings	Accumulated other comprehensive loss	Non-controlling interests	Total
Balance at December 31, 2019	$ 3,348	$ 1,115,944	$ 5,793,149	$ (679,748)	$ 40,419	$ 6,273,112
Net income	—	—	172,195	—	1,335	173,530
Compensation reversal for equity awards	—	(1,239)	—	—	—	(1,239)
Units repurchased for payment of taxes on equity awards	—	(36,873)	—	—	—	(36,873)
Repurchase of common stock	—	(50,028)	—	—	—	(50,028)
Foreign currency translation loss	—	—	—	(172,314)	(60)	(172,374)
Amounts reclassified from accumulated other comprehensive loss to interest expense, net of tax	—	—	—	114	—	114
Unrealized holding gains on available for sale debt securities, net of tax	—	—	—	909	—	909
Contributions from non-controlling interests	—	—	—	—	622	622
Distributions to non-controlling interests	—	—	—	—	(497)	(497)
Other	3	(1,036)	(15,081)	—	(1,615)	(17,729)
Balance at March 31, 2020	$ 3,351	$ 1,026,768	$ 5,950,263	$ (851,039)	$ 40,204	$ 6,169,547

	CBRE Group, Inc. Shareholders					
	Class A common stock	Additional paid-in capital	Accumulated earnings	Accumulated other comprehensive loss	Non-controlling interests	Total
Balance at December 31, 2018	$ 3,369	$ 1,149,013	$ 4,504,684	$ (718,269)	$ 71,105	$ 5,009,902
Net income	—	—	164,409	—	6,417	170,826
Compensation expense for equity awards	—	29,271	—	—	—	29,271
Units repurchased for payment of taxes on equity awards	—	(9,186)	—	—	—	(9,186)
Repurchase of common stock	(11)	(45,077)	—	—	—	(45,088)
Foreign currency translation gain (loss)	—	—	—	993	(56)	937
Amounts reclassified from accumulated other comprehensive loss to interest expense, net of tax	—	—	—	410	—	410
Unrealized losses on interest rate swaps, net of tax	—	—	—	(59)	—	(59)
Unrealized holding gains on available for sale debt securities, net of tax	—	—	—	755	—	755
Contributions from non-controlling interests	—	—	—	—	40,774	40,774
Distributions to non-controlling interests	—	—	—	—	(1,347)	(1,347)
Other	5	2,963	6,108	1	(2,056)	7,021
Balance at March 31, 2019	$ 3,363	$ 1,126,984	$ 4,675,201	$ (716,169)	$ 114,837	$ 5,204,216

The accompanying notes are an integral part of these consolidated financial statements.

CBRE GROUP, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. Basis of Presentation

Readers of this Quarterly Report on Form 10-Q (Quarterly Report) should refer to the audited financial statements and notes to consolidated financial statements of CBRE Group, Inc., a Delaware corporation (which may be referred to in these financial statements as "the company," "we," "us" and "our"), for the year ended December 31, 2019, which are included in our 2019 Annual Report on Form 10-K (2019 Annual Report), filed with the United States Securities and Exchange Commission (SEC) and also available on our website (www.cbre.com), since we have omitted from this Quarterly Report certain footnote disclosures which would substantially duplicate those contained in such audited financial statements. You should also refer to Note 2, Significant Accounting Policies, in the notes to consolidated financial statements in our 2019 Annual Report for further discussion of our significant accounting policies and estimates.

Considerations Related to the COVID-19 Pandemic

In the first quarter of 2020, the outbreak of the widespread novel coronavirus (COVID-19) illness resulted in tremendous amounts of uncertainty, interruption of business activity and significantly impacted global markets. On March 11, 2020, the World Health Organization declared COVID-19 a pandemic, pointing to over 118,000 cases of the coronavirus illness in over 110 countries and territories around the world at that time.

The emergence of the COVID-19 pandemic and resultant shutdown of economic activity across much of the world has led to sharp increases in unemployment, dislocations in debt and equity markets and businesses instituting cost-cutting and capital-preservation measures. There has been a significant impact on commercial real estate markets in the first quarter of 2020, as many property owners and occupiers have put transactions on hold and withdrawn existing mandates, driving lower sales and leasing volumes. Real estate investment management and property development markets have been equally affected by the abrupt macroeconomic, real estate and capital markets changes brought about by COVID-19. The timing of these impacts varies by geography, with Asian markets experiencing the earliest effects from the pandemic, while many other markets did not begin to experience significant effects until the end of the first quarter. We expect the effects of COVID-19 will adversely impact our financial position, results of operations, and cash flows for fiscal year 2020. The unaudited consolidated financial statements presented herein reflect our current estimates and assumptions that affect the reported amounts of assets and liabilities and related disclosures as of the date of the financial statements and reported amounts of sales and expenses during the reporting periods presented.

See Note 5 (Fair Value Measurements), Note 7 (Goodwill) and Note 11 (Commitments and Contingencies) for further discussion of COVID-19 considerations.

Financial Statement Preparation

The accompanying consolidated financial statements have been prepared in accordance with the rules applicable to quarterly reports on Form 10-Q and include all information and footnotes required for interim financial statement presentation, but do not include all disclosures required under accounting principles generally accepted in the United States (U.S.), or GAAP, for annual financial statements. In our opinion, all adjustments (consisting of normal recurring adjustments, except as otherwise noted) considered necessary for a fair presentation have been included. The preparation of financial statements in conformity with GAAP requires us to make estimates and assumptions about future events, including the impact COVID-19 may have on our business. These estimates and the underlying assumptions affect the amounts of assets and liabilities reported and reported amounts of revenue and expenses. Such estimates include the value of goodwill, intangibles and other long-lived assets, real estate assets, accounts receivable, contract assets, operating lease assets, investments in unconsolidated subsidiaries and assumptions used in the calculation of income taxes, retirement and other post-employment benefits, among others. These estimates and assumptions are based on our best judgment. We evaluate our estimates and assumptions on an ongoing basis using historical experience and other factors, including consideration of the current economic environment, and adjust such estimates and assumptions when facts and circumstances dictate. As future events and their effects cannot be determined with precision, actual results could differ significantly from these estimates. Changes in these estimates resulting from continuing changes in the economic environment will be reflected in the financial statements in future periods.

Certain reclassifications have been made to the 2019 financial statements to conform with the 2020 presentation.

2. New Accounting Pronouncements

Recently Adopted Accounting Pronouncements

The Financial Accounting Standards Board (FASB) previously issued five Accounting Standards Updates (ASUs) related to related to financial instruments – credit losses. The ASUs issued were: (1) in June 2016, ASU 2016-13, "*Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments,*" (2) in November 2018, ASU 2018-19, "*Codification Improvements to Topic 326, Financial Instruments—Credit Losses,*" (3) in April 2019, ASU 2019-04, "*Codification Improvements to Topic 326, Financial Instruments—Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments,*" (4) in May 2019, ASU 2019-05, "*Financial Instruments – Credit Losses (Topic 326): Targeted Transition Relief*" and (5) in November 2019, ASU 2019-11, "*Codification Improvements to Topic 326, Financial Instruments—Credit Losses.*" Additionally, in February and March 2020, the FASB issued ASU 2020-02, "*Financial Instruments—Credit Losses (Topic 326) and Leases (Topic 842): Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 119 and Update to SEC Section on Effective Date Related to Accounting Standards Update No. 2016-02, Leases (Topic 842)*" and ASU 2020-03, "*Codification Improvements to Financial Instruments,*" respectively, which include amendments to Topic 326.

ASU 2016-13 is intended to improve financial reporting by requiring timelier recording of credit losses on loans and other financial instruments held by financial institutions and other organizations. ASU 2018-19 clarifies that receivables arising from operating leases are not within the scope of the credit losses standard, but rather, should be accounted for in accordance with the leasing standard. ASU 2019-04 clarifies and improves areas of guidance related to the recently issued standards on financial instruments – credit losses, derivatives and hedging, and financial instruments. ASU 2019-05 provides entities that have certain instruments within the scope of Subtopic 326-20, Financial Instruments—Credit Losses—Measured at Amortized Cost, with an option to irrevocably elect the fair value option in Subtopic 825-10, Financial Instruments—Overall. ASU 2019-11 clarifies guidance around how to report expected recoveries and reinforces existing guidance that prohibits organizations from recording negative allowances for available-for-sale debt securities, among other narrow scope and technical improvements. ASU 2020-02 adds a Securities and Exchange Commission (SEC) paragraph pursuant to the issuance of SEC Staff Accounting Bulletin No. 119 on loan losses to FASB Codification Topic 326 and also updates the SEC section of the Codification for the change in the effective date of Topic 842. ASU 2020-03 makes narrow-scope improvements to various aspects of the financial instrument guidance as part of the FASB's ongoing Codification improvement project aimed at clarifying specific areas of accounting guidance to help avoid unintended application. We adopted ASU 2016-13, ASU 2018-19, ASU 2019-04 (as it related to financial instruments – credit losses), ASU 2019-05, ASU 2019-11, ASU 2020-02 and ASU 2020-03 in the first quarter of 2020 and the adoption did not have a material impact on our consolidated financial statements and related disclosures.

In November 2018, the FASB issued ASU 2018-18, "*Collaborative Arrangements (Topic 808): Clarifying the Interaction Between Topic 808 and Topic 606*." This ASU provides guidance on how to assess whether certain transactions between collaborative arrangement participants should be accounted for within the revenue recognition standard and provides more comparability in the presentation of revenue for certain transactions between collaborative arrangement participants. This ASU is effective for fiscal years beginning after December 15, 2019, and interim periods within those years, with early adoption permitted. We adopted ASU 2018-18 in the first quarter of 2020 and the adoption did not have a material impact on our consolidated financial statements and related disclosures.

Recent Accounting Pronouncements Pending Adoption

In August 2018, the FASB issued ASU 2018-14, "*Compensation—Retirement Benefits—Defined Benefit Plans—General (Subtopic 715-20): Disclosure Framework—Changes to the Disclosure Requirements for Defined Benefit Plans.*" This ASU makes minor changes to the disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans. This ASU is effective for fiscal years ending after December 15, 2020, with early adoption permitted. ASU 2018-14 only revises disclosure requirements. We are evaluating the effect, if any, that ASU 2018-14 will have on our disclosures, but do not expect it to have a material impact.

In December 2019, the FASB issued ASU 2019-12, "*Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*." This ASU removes specific exceptions to the general principles in Topic 740 and improves and simplifies financial statement preparers' application of income tax-related guidance. This ASU is effective for fiscal years beginning after December 15, 2020, and interim periods within those years, with early adoption permitted. We are evaluating the effect that ASU 2019-12 will have on our consolidated financial statements and related disclosures, but do not expect it to have a material impact.

In January 2020, the FASB issued ASU 2020-01, "*Investments—Equity Securities (Topic 321), Investments—Equity Method and Joint Ventures (Topic 323), and Derivatives and Hedging (Topic 815)*" This ASU, among other things, clarifies that a company should consider observable transactions that require a company to either apply or discontinue the equity method of accounting under Topic 323 and clarifies that, when determining the accounting for certain forward contracts and purchased options a company should not consider, whether upon settlement or exercise, if the underlying securities would be accounted for under the equity method or fair value option. This ASU is effective for fiscal years beginning after December 15, 2020, and interim periods within those years, with early adoption permitted. We are evaluating the effect that ASU 2020-01 will have on our consolidated financial statements and related disclosures.

In March 2020, the FASB issued ASU 2020-04, "*Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting.*" This ASU provides temporary optional guidance to ease the potential burden in accounting for reference rate reform. The new guidance provides optional expedients and exceptions for applying generally accepted accounting principles to contract modifications and hedging relationships, subject to meeting certain criteria, that reference LIBOR or another reference rate expected to be discontinued. This ASU is effective for a limited time for all entities through December 31, 2022. We are evaluating the effect that ASU 2020-04 will have on our consolidated financial statements and related disclosures.

3. Telford Acquisition

On October 1, 2019, we acquired Telford Homes Plc (Telford) to expand our real estate development business outside of the U.S. (Telford Acquisition). A leading developer of multifamily residential properties in the London area, Telford is reported in our Real Estate Investments segment. Telford shareholders received £3.50 per share in cash, valuing Telford at £267.1 million, or $328.5 million as of the acquisition date.

The preliminary purchase accounting related to the Telford Acquisition has been recorded in the accompanying consolidated financial statements (with no significant changes in the first quarter of 2020). The excess purchase price over the estimated fair value of net assets acquired has been recorded to goodwill. The goodwill arising from the Telford Acquisition consists largely of the synergies and economies of scale expected from combining the operations acquired from Telford with ours. We are currently assessing if any portion of the goodwill recorded in connection with the Telford Acquisition will be deductible for tax purposes, but do not expect any tax deductible goodwill to be significant. Given the complexity of the transaction, the calculation of the fair value of certain assets and liabilities acquired, primarily intangibles and income tax items, is still preliminary. The purchase price allocation is expected to be completed as soon as practicable, but no later than one year from the acquisition date.

4. Warehouse Receivables & Warehouse Lines of Credit

Our wholly-owned subsidiary CBRE Capital Markets, Inc. (CBRE Capital Markets) is a Federal Home Loan Mortgage Corporation (Freddie Mac) approved Multifamily Program Plus Seller/Servicer and an approved Federal National Mortgage Association (Fannie Mae) Aggregation and Negotiated Transaction Seller/Servicer. In addition, CBRE Capital Markets' wholly-owned subsidiary CBRE Multifamily Capital, Inc. (CBRE MCI) is an approved Fannie Mae Delegated Underwriting and Servicing (DUS) Seller/Servicer and CBRE Capital Markets' wholly-owned subsidiary CBRE HMF, Inc. (CBRE HMF) is a U.S. Department of Housing and Urban Development (HUD) approved Non-Supervised Federal Housing Authority (FHA) Title II Mortgagee, an approved Multifamily Accelerated Processing (MAP) lender and an approved Government National Mortgage Association (Ginnie Mae) issuer of mortgage-backed securities (MBS). Under these arrangements, before loans are originated through proceeds from warehouse lines of credit, we obtain either a contractual loan purchase commitment from either Freddie Mac or Fannie Mae or a confirmed forward trade commitment for the issuance and purchase of a Fannie Mae or Ginnie Mae MBS that will be secured by the loans. The warehouse lines of credit are generally repaid within a one-month period when Freddie Mac or Fannie Mae buys the loans or upon settlement of the Fannie Mae or Ginnie Mae MBS, while we retain the servicing rights. Loans are funded at the prevailing market rates. We elect the fair value option for all warehouse receivables. At March 31, 2020 and December 31, 2019, all of the warehouse receivables included in the accompanying consolidated balance sheets were either under commitment to be purchased by Freddie Mac or had confirmed forward trade commitments for the issuance and purchase of Fannie Mae or Ginnie Mae mortgage-backed securities that will be secured by the underlying loans.

A rollforward of our warehouse receivables is as follows (dollars in thousands):

Beginning balance at December 31, 2019	$ 993,058
Origination of mortgage loans	3,859,407
Gains (premiums on loan sales)	16,294
Proceeds from sale of mortgage loans:	
Sale of mortgage loans	(3,579,337)
Cash collections of premiums on loan sales	(16,294)
Proceeds from sale of mortgage loans	(3,595,631)
Net increase in mortgage servicing rights included in warehouse receivables	131
Ending balance at March 31, 2020	$ 1,273,259

The following table is a summary of our warehouse lines of credit in place as of March 31, 2020 and December 31, 2019 (dollars in thousands):

			March 31, 2020		December 31, 2019	
Lender	Current Maturity	Pricing	Maximum Facility Size	Carrying Value	Maximum Facility Size	Carrying Value
JP Morgan Chase Bank, N.A. (JP Morgan)	10/19/2020	daily one-month LIBOR plus 1.30%	$ 985,000	$ 814,604	$ 985,000	$ 267,075
JP Morgan	10/19/2020	daily one-month LIBOR plus 2.75%	15,000	3,923	15,000	—
Capital One, N.A. (Capital One)	7/27/2020	daily one-month LIBOR plus 1.25%	200,000	54,975	200,000	39,538
Fannie Mae Multifamily As Soon As Pooled Plus Agreement and Multifamily As Soon As Pooled Sale Agreement (ASAP) Program	Cancelable anytime	daily one-month LIBOR plus 1.35%, with a LIBOR floor of 0.35%	450,000	31,300	450,000	360,784
TD Bank, N.A. (TD Bank)	6/30/2020	daily one-month LIBOR plus 1.15%	800,000	114,806	800,000	92,266
Bank of America, N.A. (BofA)	5/27/2020	daily one-month LIBOR plus 1.20%	350,000	86,779	350,000	189,465
BofA	5/27/2020	daily one-month LIBOR plus 1.15%	250,000	—	250,000	17,457
MUFG Union Bank, N.A. (Union Bank) (1)	6/28/2020	daily one-month LIBOR plus 1.20%	350,000	152,445	350,000	10,590
			$ 3,400,000	$ 1,258,832	$ 3,400,000	$ 977,175

(1) On June 28, 2019, we added a new warehouse facility for $ 200.0 million with Union Bank. This facility contains an accordion feature which allows for temporary increases not to exceed an additional $150.0 million. If utilized, the additional borrowings must be in predefined multiples and are not to occur more than three times within twelve consecutive months. Since inception, no short-term temporary increases have been requested.

During the three months ended March 31, 2020, we had a maximum of $1.8 billion of warehouse lines of credit principal outstanding.

5. Variable Interest Entities (VIEs)

We hold variable interests in certain VIEs in our Real Estate Investments segment which are not consolidated as it was determined that we are not the primary beneficiary. Our involvement with these entities is in the form of equity co-investments and fee arrangements.

As of March 31, 2020 and December 31, 2019, our maximum exposure to loss related to VIEs which are not consolidated was as follows (dollars in thousands):

	March 31, 2020	December 31, 2019
Investments in unconsolidated subsidiaries	$ 40,942	$ 30,484
Other current assets	4,460	4,307
Co-investment commitments	41,430	29,696
Maximum exposure to loss	$ 86,832	$ 64,487

6. Fair Value Measurements

Topic 820 of the FASB Accounting Standards Codification (ASC) defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. Topic 820 also establishes a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. This hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows:

- Level 1 – Quoted prices in active markets for identical assets or liabilities.
- Level 2 – Observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.
- Level 3 – Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. This includes certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

There have been no significant changes to the valuation techniques and inputs used to develop the recurring fair value measurements from those disclosed in our 2019 Annual Report.

For a portion of our investments in unconsolidated subsidiaries reported at fair value, we estimate fair value using the net asset value (NAV) per share (or its equivalent) our investees provide. These investments are considered investment companies, or are the equivalent of investment companies, as they carry all investments at fair value, with unrealized gains and losses resulting from changes in fair value reflected in earnings. Accordingly, we effectively carry our investments at an amount that is equivalent to our proportionate share of the net assets of each investment that would be allocated to us if each investment was liquidated at the net asset value as of the measurement date. As of March 31, 2020 and December 31, 2019, investments in unconsolidated subsidiaries at fair value using NAV were $ 58.4 million and $45.2 million, respectively. These investments fall under practical expedient rules that do not require them to be included in the fair value hierarchy and as a result have been excluded from the tables below.

The following tables present the fair value of assets and liabilities measured at fair value on a recurring basis as of March 31, 2020 and December 31, 2019 (dollars in thousands):

	As of March 31, 2020			
	Fair Value Measured and Recorded Using			
	Level 1	Level 2	Level 3	Total
Assets				
Available for sale securities:				
Debt securities:				
U.S. treasury securities	$ 6,531	$ —	$ —	$ 6,531
Debt securities issued by U.S. federal agencies	—	10,555	—	10,555
Corporate debt securities	—	30,722	—	30,722
Asset-backed securities	—	4,736	—	4,736
Collateralized mortgage obligations	—	2,149	—	2,149
Total available for sale debt securities	6,531	48,162	—	54,693
Equity securities	46,879	—	—	46,879
Investments in unconsolidated subsidiaries	55,769	—	—	55,769
Warehouse receivables	—	1,273,259	—	1,273,259
Total assets at fair value	$ 109,179	$ 1,321,421	$ —	$ 1,430,600

	As of December 31, 2019			
	Fair Value Measured and Recorded Using			
	Level 1	Level 2	Level 3	Total
Assets				
Available for sale securities:				
Debt securities:				
U.S. treasury securities	$ 6,998	$ —	$ —	$ 6,998
Debt securities issued by U.S. federal agencies	—	10,639	—	10,639
Corporate debt securities	—	29,098	—	29,098
Asset-backed securities	—	5,152	—	5,152
Collateralized mortgage obligations	—	2,222	—	2,222
Total available for sale debt securities	6,998	47,111	—	54,109
Equity securities	51,399	—	—	51,399
Warehouse receivables	—	993,058	—	993,058
Total assets at fair value	$ 58,397	$ 1,040,169	$ —	$ 1,098,566

The following non-recurring fair value measurements were recorded for the three months ended March 31, 2020 (dollars in thousands):

	Net Carrying Value as of March 31, 2020	Fair Value Measured and Recorded Using			Total Impairment Charges for the Three Months Ended March 31, 2020
		Level 1	Level 2	Level 3	
Property and equipment	$ 10,185	$ —	$ —	$ 10,185	$ 21,663
Goodwill	418,861	—	—	418,861	25,000
Other intangible assets	13,403	—	—	13,403	28,508
Total	$ 442,449	$ —	$ —	$ 442,449	$ 75,171

The following non-recurring fair value measurement was recorded for the three months ended March 31, 2019 (dollars in thousands):

	Net Carrying Value as of March 31, 2019	Fair Value Measured and Recorded Using			Total Impairment Charges for the Three Months Ended March 31, 2019
		Level 1	Level 2	Level 3	
Other intangible assets	$ 16,000	$ —	$ —	$ 16,000	$ 89,037

During the three months ended March 31, 2020, we recorded $50.2 million of non-cash asset impairment charges in our Global Workplace Solutions segment and a non-cash goodwill impairment charge of $25.0 million in our Real Estate Investments segment. As a result of the recent global economic disruption and uncertainty due to COVID-19, we deemed there to be triggering events requiring testing of certain assets for impairment as of March 31, 2020. Based on these tests, we recorded the aforementioned non-cash impairment charges, which were driven by lower anticipated cash flows in certain businesses directly resulting from a downturn in forecasts as well as increased forecast risk due to COVID-19.

During the three months ended March 31, 2019, we recorded an intangible asset impairment charge of $89.0 million in our Real Estate Investments segment. This non-cash write-off resulted from a review of the anticipated cash flows and a decrease in assets under management in our public securities business driven in part by continued industry-wide shift in investor preference for passive investment programs.

All the above-mentioned asset impairment charges were included within the line item "Asset impairments" in the accompanying consolidated statements of operations. The fair value measurements employed for our impairment evaluations were based on a discounted cash flow approach. Inputs used in these evaluations included risk-free rates of return, estimated risk premiums, terminal growth rates, working capital assumptions, income tax rates as well as other economic variables.

FASB ASC Topic 825, *"Financial Instruments"* requires disclosure of fair value information about financial instruments, whether or not recognized in the accompanying consolidated balance sheets. Our financial instruments are as follows:

- *Cash and Cash Equivalents* and *Restricted Cash* – These balances include cash and cash equivalents as well as restricted cash with maturities of less than three months. The carrying amount approximates fair value due to the short-term maturities of these instruments.
- *Receivables, less Allowance for Doubtful Accounts* – Due to their short-term nature, fair value approximates carrying value.
- *Warehouse Receivables* – These balances are carried at fair value. The primary source of value is either a contractual purchase commitment from Freddie Mac or a confirmed forward trade commitment for the issuance and purchase of a Fannie Mae or Ginnie Mae MBS (see Note 4).
- *Investments in Unconsolidated Subsidiaries* – A portion of these investments are carried at fair value. We classify three investments as Level 1 in the fair value hierarchy as a quoted price is readily available. For the remaining investments in unconsolidated subsidiaries that are carried at fair value, we estimate the fair value of each investment using the NAV per share (or its equivalent).
- *Available for Sale Debt Securities* – These investments are carried at their fair value.
- *Equity Securities* – These investments are carried at their fair value.
- *Short-Term Borrowings* – The majority of this balance represents outstanding amounts under our warehouse lines of credit of our wholly-owned subsidiary, CBRE Capital Markets, and our revolving credit facility. Due to the short-term nature and variable interest rates of these instruments, fair value approximates carrying value (see Notes 4 and 9).
- *Senior Term Loans* – Based upon information from third-party banks (which falls within Level 2 of the fair value hierarchy), the estimated fair value of our senior term loans was approximately $708.8 million at March 31, 2020 and $745.5 million at December 31, 2019. Their actual carrying value, net of unamortized debt issuance costs, totaled $737.6 million and $744.6 million at March 31, 2020 and December 31, 2019, respectively (see Note 9).
- *Senior Notes* – Based on dealers' quotes (which falls within Level 2 of the fair value hierarchy), the estimated fair values of our 4.875% senior notes and 5.25% senior notes were $620.4 million and $459.2 million, respectively, at March 31, 2020 and $670.7 million and $478.3 million, respectively, at December 31, 2019. The actual carrying value of our 4.875% senior notes and 5.25% senior notes, net of unamortized debt issuance costs as well as unamortized discount or premium, if applicable, totaled $593.9 million and $423.1 million, respectively, at March 31, 2020 and $593.6 million and $423.0 million, respectively, at December 31, 2019.

7. Goodwill

We test each of our reporting units for goodwill impairment annually at October 1st, or upon a triggering event, in accordance with ASC Topic 350, "*Intangibles – Goodwill and Other*." As a result of the COVID-19 pandemic during the first quarter of 2020, we assessed at a reporting unit level whether any triggering events had occurred during the period that would require us to perform a quantitative impairment analysis of goodwill. As a result of this evaluation, we determined that there was a triggering event in our global investment management reporting unit (which falls within our Real Estate Investments segment) that required a quantitative test to be performed. In connection with this quantitative evaluation, we determined that this reporting unit's goodwill was impaired and recorded a $25.0 million non-cash impairment charge during the three months ended March 31, 2020 (see Note 6 for additional information). No triggering events were identified in our other reporting units as of March 31, 2020.

The following table summarizes our change in carrying amount of goodwill for the three months ended March 31, 2020 (dollars in thousands):

	Advisory Services	Global Workplace Solutions	Real Estate Investments	Consolidated
Balance as of December 31, 2019				
Goodwill	$ 3,302,218	$ 899,506	$ 620,275	$ 4,821,999
Accumulated impairment losses	(761,448)	(175,473)	(131,585)	(1,068,506)
	2,540,770	724,033	488,690	3,753,493
Impairment loss	—	—	(25,000)	(25,000)
Purchase accounting entries related to acquisitions	16,276	11,483	(9,084)	18,675
Foreign exchange movement	(26,937)	(35,769)	(10,704)	(73,410)
Balance as of March 31, 2020				
Goodwill	3,291,557	875,220	600,487	4,767,264
Accumulated impairment losses	(761,448)	(175,473)	(156,585)	(1,093,506)
	$ 2,530,109	$ 699,747	$ 443,902	$ 3,673,758

8. Investments in Unconsolidated Subsidiaries

Investments in unconsolidated subsidiaries are accounted for under the equity method of accounting. Our investment ownership percentages in equity method investments vary, generally ranging up to 50.0%.

Combined condensed financial information for the entities accounted for using the equity method is as follows (dollars in thousands):

	Three Months Ended March 31, 2020	2019
Revenue	$ 411,251	$ 365,125
Operating income	174,534	94,621
Net income	104,528	48,928

9. Long-Term Debt and Short-Term Borrowings

Long-Term Debt

Long-term debt consists of the following (dollars in thousands):

	March 31, 2020	December 31, 2019
Senior term loans, with interest ranging from 0.75% to 2.69%, due quarterly through 2024	$ 741,306	$ 748,531
4.875% senior notes due in 2026, net of unamortized discount	597,154	597,052
5.25% senior notes due in 2025, net of unamortized premium	425,906	425,952
Other	1,718	1,861
Total long-term debt	1,766,084	1,773,396
Less: current maturities of long-term debt	(1,718)	(1,814)
Less: unamortized debt issuance costs	(9,848)	(10,337)
Total long-term debt, net of current maturities	$ 1,754,518	$ 1,761,245

We maintain credit facilities with third-party lenders, which we use for a variety of purposes. On March 4, 2019, CBRE Services, Inc. (CBRE Services) entered into an incremental assumption agreement with respect to its credit agreement, dated October 31, 2017 (such credit agreement, as amended by a December 20, 2018 incremental loan assumption agreement and such March 4, 2019 incremental assumption agreement, the 2019 Credit Agreement), which (i) extended the maturity of the U.S. dollar tranche A term loans under such credit agreement, (ii) extended the termination date of the revolving credit commitments available under such credit agreement and (iii) made certain changes to the interest rates and fees applicable to such tranche A term loans and revolving credit commitments under such credit agreement. The proceeds from the new tranche A term loan facility under the 2019 Credit Agreement were used to repay the $ 300.0 million of tranche A term loans outstanding under the credit agreement in effect prior to the entry into the 2019 incremental assumption agreement.

The 2019 Credit Agreement is a senior unsecured credit facility that is jointly and severally guaranteed by us and certain of our subsidiaries. As of March 31, 2020, the 2019 Credit Agreement provided for the following: (1) a $2.8 billion incremental revolving credit facility, which includes the capacity to obtain letters of credit and swingline loans and terminates on March 4, 2024; (2) a $300.0 million incremental tranche A term loan facility maturing on March 4, 2024, requiring quarterly principal payments unless our leverage ratio (as defined in the 2019 Credit Agreement) is less than or equal to 2.50 to 1.00 on the last day of the fiscal quarter immediately preceding any such payment date and (3) a €400.0 million term loan facility due and payable in full at maturity onDecember 20, 2023.

The indentures governing our 4.875% senior notes and 5.25% senior notes contain restrictive covenants that, among other things, limit our ability to create or permit liens on assets securing indebtedness, enter into sale/leaseback transactions and enter into consolidations or mergers. In addition, these indentures require that the 4.875% senior notes and 5.25% senior notes be jointly and severally guaranteed on a senior basis by CBRE Group, Inc. and each domestic subsidiary of CBRE Services that guarantees our 2019 Credit Agreement. Our 2019 Credit Agreement also requires us to maintain a minimum coverage ratio of consolidated EBITDA (as defined in the 2019 Credit Agreement) to consolidated interest expense of 2.00x and a maximum leverage ratio of total debt less available cash to consolidated EBITDA (as defined in the 2019 Credit Agreement) of 4.25x (and in the case of the first four full fiscal quarters following consummation of a qualified acquisition (as defined in the 2019 Credit Agreement),4.75x) as of the end of each fiscal quarter. On this basis, our coverage ratio of consolidated EBITDA to consolidated interest expense was 22.47x for the trailing twelve months ended March 31, 2020, and our leverage ratio of total debt less available cash to consolidated EBITDA was 0.60x as of March 31, 2020.

Short-Term Borrowings

Revolving Credit Facility

The revolving credit facility under the 2019 Credit Agreement allows for borrowings outside of the U.S., with a $200.0 million sub-facility available to CBRE Services, one of our Canadian subsidiaries, one of our Australian subsidiaries and one of our New Zealand subsidiaries and a $300.0 million sub-facility available to CBRE Services and one of our U.K. subsidiaries. Borrowings under the revolving credit facility bear interest at varying rates, based at our option, on either (1) the applicable fixed rate plus 0.680% to 1.075% or (2) the daily rate plus 0.0% to 0.075%, in each case as determined by reference to our Credit Rating (as defined in the 2019 Credit Agreement). The 2019 Credit Agreement requires us to pay a fee based on the total amount of the revolving credit facility commitment (whether used or unused). As of March 31, 2020, no amount was outstanding under the revolving credit facility other than letters of credit totaling $2.0 million. These letters of credit, which reduce the amount we may borrow under the revolving credit facility, were primarily issued in the ordinary course of business.

Warehouse Lines of Credit

CBRE Capital Markets has warehouse lines of credit with third-party lenders for the purpose of funding mortgage loans that will be resold, and a funding arrangement with Fannie Mae for the purpose of selling a percentage of certain closed multifamily loans to Fannie Mae. These warehouse lines are recourse only to CBRE Capital Markets and are secured by our related warehouse receivables. See Note 4 for additional information.

10. Leases

We are the lessee in contracts for our office space tenancies, for leased vehicles and for our wholly-owned subsidiary Hana. These arrangements account for the significant portion of our lease liabilities and right-of-use assets. We continually monitor our service arrangements to evaluate whether they meet the definition of a lease.

Supplemental balance sheet information related to our leases is as follows (dollars in thousands):

Category	Classification	March 31, 2020	December 31, 2019
Assets			
Operating lease assets	Operating lease assets	$ 997,793	$ 997,966
Financing lease assets	Other assets, net	98,437	94,141
Total leased assets		$ 1,096,230	$ 1,092,107
Liabilities			
Current:			
Operating	Operating lease liabilities	$ 183,159	$ 168,663
Financing	Other current liabilities	36,916	34,966
Non-current:			
Operating	Non-current operating lease liabilities	1,045,708	1,057,758
Financing	Other liabilities	63,016	60,001
Total lease liabilities		$ 1,328,799	$ 1,321,388

Supplemental cash flow information and non-cash activity related to our operating leases are as follows (dollars in thousands):

	Three Months Ended March 31, 2020	Three Months Ended March 31, 2019
Right-of-use assets obtained in exchange for new operating lease liabilities	$ 61,310	$ 47,467
Right-of-use assets obtained in exchange for new financing lease liabilities	14,683	2,668
Other non-cash increases in operating lease right-of-use assets (1)	6,888	1,372
Other non-cash decreases in finance lease right-of-use assets (1)	(517)	—

(1) These noncash increases in right-of-use assets resulted from lease modifications and remeasurements.

11. Commitments and Contingencies

We are a party to a number of pending or threatened lawsuits arising out of, or incident to, our ordinary course of business. We believe that any losses in excess of the amounts accrued therefore as liabilities on our financial statements are unlikely to be significant, but litigation is inherently uncertain and there is the potential for a material adverse effect on our financial statements if one or more matters are resolved in a particular period in an amount materially in excess of what we anticipated.

In January 2008, CBRE MCI, a wholly-owned subsidiary of CBRE Capital Markets, entered into an agreement with Fannie Mae under Fannie Mae's Delegated Underwriting and Servicing Lender Program (DUS Program), to provide financing for multifamily housing with five or more units. Under the DUS Program, CBRE MCI originates, underwrites, closes and services loans without prior approval by Fannie Mae, and typically, is subject to sharing up to one-third of any losses on loans originated under the DUS Program. CBRE MCI has funded loans subject to such loss sharing arrangements with unpaid principal balances of $28.8 billion at March 31, 2020. CBRE MCI, under its agreement with Fannie Mae, must post cash reserves or other acceptable collateral under formulas established by Fannie Mae to provide for sufficient capital in the event losses occur. As of March 31, 2020 and December 31, 2019, CBRE MCI had a $75.0 million and a $72.0 million, respectively, letter of credit under this reserve arrangement, and had recorded a liability of approximately $57.3 million and $37.0 million, respectively, for its loan loss guarantee obligation under such arrangement. Fannie Mae's recourse under the DUS Program is limited to the assets of CBRE MCI, which assets totaled approximately $629.7 million (including $305.5 million of warehouse receivables, a substantial majority of which are pledged against warehouse lines of credit and are therefore not available to Fannie Mae) at March 31, 2020.

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) was enacted in the United States in response to the COVID-19 pandemic. The CARES Act, among other things, permits borrowers with government-backed mortgages from Government Sponsored Enterprises who are experiencing a financial hardship to obtain forbearance of their loans. For Fannie Mae loans that we service, CBRE MCI is obligated to advance (for a forbearance period up to 90 consecutive days and potentially longer) scheduled principal and interest payments to Fannie Mae, regardless of whether the borrowers actually make the payments. These advances are reimbursable by Fannie Mae after 120 days.

CBRE Capital Markets participates in Freddie Mac's Multifamily Small Balance Loan (SBL) Program. Under the SBL program, CBRE Capital Markets has certain repurchase and loss reimbursement obligations. We could potentially be obligated to repurchase any SBL Program loan originated by CBRE Capital Markets that remains in default for 120 days following the forbearance period, if the default occurred during the first 12 months after origination and such loan had not been earlier securitized. In addition, CBRE Capital Markets may be responsible for a loss not to exceed 10% of the original principal amount of any SBL loan that is not securitized and goes into default after the 12-month repurchase period. CBRE Capital Markets must post a cash reserve or other acceptable collateral to provide for sufficient capital in the event the obligations are triggered. As of both March 31, 2020 and December 31, 2019, CBRE Capital Markets had posted a $5.0 million letter of credit under this reserve arrangement.

We had outstanding letters of credit totaling $93.8 million as of March 31, 2020, excluding letters of credit for which we have outstanding liabilities already accrued on our consolidated balance sheet related to our subsidiaries' outstanding reserves for claims under certain insurance programs as well as letters of credit related to operating leases. The CBRE Capital Markets letters of credit totaling $80.0 million as of March 31, 2020 referred to in the preceding paragraphs represented the majority of the $93.8 million outstanding letters of credit as of such date. The remaining letters of credit are primarily executed by us in the ordinary course of business and expire at varying dates through April 2021.

We had guarantees totaling $77.4 million as of March 31, 2020, excluding guarantees related to pension liabilities, consolidated indebtedness and other obligations for which we have outstanding liabilities already accrued on our consolidated balance sheet, and excluding guarantees related to operating leases. The $77.4 million primarily represents guarantees executed by us in the ordinary course of business, including various guarantees of management and vendor contracts in our operations overseas, which expire at the end of each of the respective agreements.

In addition, as of March 31, 2020, we had issued numerous non-recourse carveout, completion and budget guarantees relating to development projects for the benefit of third parties. These guarantees are commonplace in our industry and are made by us in the ordinary course of our Real Estate Investments business. Non-recourse carveout guarantees generally require that our project-entity borrower not commit specified improper acts, with us potentially liable for all or a portion of such entity's indebtedness or other damages suffered by the lender if those acts occur. Completion and budget guarantees generally require us to complete construction of the relevant project within a specified timeframe and/or within a specified budget, with us potentially being liable for costs to complete in excess of such timeframe or budget. While there can be no assurance, we do not expect to incur any material losses under these guarantees.

An important part of the strategy for our Real Estate Investments business involves investing our capital in certain real estate investments with our clients. These co-investments generally total up to 2.0% of the equity in a particular fund. As of March 31, 2020, we had aggregate commitments of $82.5 million to fund these future co-investments. Additionally, an important part of our Real Estate Investments business strategy is to invest in unconsolidated real estate subsidiaries as a principal (in most cases co-investing with our clients). As of March 31, 2020, we had committed to fund $42.7 million of additional capital to these unconsolidated subsidiaries.

12. Income Per Share and Stockholders' Equity

The calculations of basic and diluted income per share attributable to CBRE Group, Inc. shareholders are as follows (dollars in thousands, except share data):

	Three Months Ended March 31,			
	2020		2019	
Basic Income Per Share				
Net income attributable to CBRE Group, Inc. shareholders	$	172,195	$	164,409
Weighted average shares outstanding for basic income per share		334,969,826		336,020,431
Basic income per share attributable to CBRE Group, Inc. shareholders	$	0.51	$	0.49
Diluted Income Per Share				
Net income attributable to CBRE Group, Inc. shareholders	$	172,195	$	164,409
Weighted average shares outstanding for basic income per share:		334,969,826		336,020,431
Dilutive effect of contingently issuable shares		4,768,085		4,137,968
Weighted average shares outstanding for diluted income per share		339,737,911		340,158,399
Diluted income per share attributable to CBRE Group, Inc. shareholders	$	0.51	$	0.48

For the three months ended March 31, 2020 and 2019, 341,359 and 547,676, respectively, of contingently issuable shares were excluded from the computation of diluted income per share because their inclusion would have had an anti-dilutive effect.

In October 2016, our board of directors authorized the company to repurchase up to an aggregate of $250.0 million of our Class A common stock over three years. During January 2019, through an existing stock repurchase plan entered into pursuant to Rule 10b5-1 under the Exchange Act (10b5-1 plan), we spent $45.1 million to repurchase 1,144,449 shares of our Class A common stock with an average price paid per share of $39.38.

In February 2019, our board of directors authorized a new program for the company to repurchase up to $300.0 million of our Class A common stock over three years, effective March 11, 2019. The previous program terminated upon the effectiveness of the new stock repurchase program. In each of August and November 2019, our board of directors authorized an additional $100.0 million under our new program, bringing the total authorized amount under the new program to a total of $500.0 million. During the year ended December 31, 2019, under the March 2019 program, and through repurchases under a 10b5-1 plan, we spent $100.0 million to repurchase an additional 1,936,458 shares of our Class A common stock with an average price paid per share of $51.64. During the month of March 2020, through repurchases under a 10b5-1 plan, we spent $50.0 million to repurchase an additional 1,050,084 shares of our Class A common stock with an average price paid per share of $47.62. As of March 31, 2020, we had $350.0 million of capacity remaining under our current stock repurchase program.

13. Revenue from Contracts with Customers

We account for revenue with customers in accordance with FASB ASC Topic, "*Revenue from Contracts with Customers*" (Topic 606). Revenue is recognized when or as control of the promised services is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those services.

Disaggregated Revenue

The following tables represent a disaggregation of revenue from contracts with customers for the three months ended March 31, 2020 and 2019 by type of service and/or segment (dollars in thousands):

	Three Months Ended March 31, 2020			
	Advisory Services	Global Workplace Solutions	Real Estate Investments	Consolidated
Topic 606 Revenue:				
Global workplace solutions	$ —	$ 3,746,174	$ —	$ 3,746,174
Advisory leasing	607,111	—	—	607,111
Advisory sales	430,956	—	—	430,956
Property and advisory project management	565,943	—	—	565,943
Valuation	147,752	—	—	147,752
Commercial mortgage origination (1)	37,880	—	—	37,880
Loan servicing (2)	11,409	—	—	11,409
Investment management	—	—	121,678	121,678
Development services	—	—	76,226	76,226
Topic 606 Revenue	1,801,051	3,746,174	197,904	5,745,129
Out of Scope of Topic 606 Revenue:				
Commercial mortgage origination	85,202	—	—	85,202
Loan servicing	45,271	—	—	45,271
Development services (3)	—	—	13,566	13,566
Total Out of Scope of Topic 606 Revenue	130,473	—	13,566	144,039
Total revenue	$ 1,931,524	$ 3,746,174	$ 211,470	$ 5,889,168

	Three Months Ended March 31, 2019			
	Advisory Services	Global Workplace Solutions	Real Estate Investments	Consolidated
Topic 606 Revenue:				
Global workplace solutions	$ —	$ 3,165,915	$ —	$ 3,165,915
Advisory leasing	622,640	—	—	622,640
Advisory sales	385,655	—	—	385,655
Property and advisory project management	520,884	—	—	520,884
Valuation	138,326	—	—	138,326
Commercial mortgage origination (1)	23,573	—	—	23,573
Loan servicing (2)	6,986	—	—	6,986
Investment management	—	—	106,308	106,308
Development services	—	—	28,885	28,885
Topic 606 Revenue	1,698,064	3,165,915	135,193	4,999,172
Out of Scope of Topic 606 Revenue:				
Commercial mortgage origination	97,306	—	—	97,306
Loan servicing	39,032	—	—	39,032
Total Out of Scope of Topic 606 Revenue	136,338	—	—	136,338
Total revenue	$ 1,834,402	$ 3,165,915	$ 135,193	$ 5,135,510

(1) We earn fees for arranging financing for borrowers with third-party lender contacts. Such fees are in scope of Topic 606.
(2) Loan servicing fees earned from servicing contracts for which we do not hold mortgage servicing rights are in scope of Topic 606.
(3) Out of scope revenue for development services represents selling profit from transfers of sales-type leases in the scope of Topic 842.

Contract Assets and Liabilities

We had contract assets totaling $530.7 million ($330.0 million of which was current) and $529.8 million ($328.0 million of which was current) as of March 31, 2020 and December 31, 2019, respectively.

We had contract liabilities totaling $113.7 million ($107.0 million of which was current) and $115.0 million ($108.7 million of which was current) as of March 31, 2020 and December 31, 2019, respectively. During the three months ended March 31, 2020, we recognized revenue of $63.2 million that was included in the contract liability balance at December 31, 2019.

14. Segments

We organize our operations around, and publicly report our financial results on,three global business segments: (1) Advisory Services; (2) Global Workplace Solutions and (3) Real Estate Investments.

Advisory Services provides a comprehensive range of services globally, including property leasing, property sales, mortgage services, property management, project management and valuation. Global Workplace Solutions provides a broad suite of integrated, contractually-based outsourcing services to occupiers of real estate, including facilities management, project management and transaction services. Real Estate Investments includes: (i) investment management services provided globally; (ii) development services in the U.S. and U.K. and (iii) flexible office space solutions.

Summarized financial information by segment is as follows (dollars in thousands):

	Three Months Ended March 31,	
	2020	2019
Revenue		
Advisory Services	$ 1,931,524	$ 1,834,402
Global Workplace Solutions	3,746,174	3,165,915
Real Estate Investments	211,470	135,193
Total revenue	$ 5,889,168	$ 5,135,510
Adjusted EBITDA		
Advisory Services	$ 292,654	$ 263,850
Global Workplace Solutions	99,298	99,679
Real Estate Investments	38,399	86,503
Total Adjusted EBITDA	$ 430,351	$ 450,032

Adjusted EBITDA is the measure reported to the chief operating decision maker (CODM) for purposes of making decisions about allocating resources to each segment and assessing performance of each segment. EBITDA represents earnings before net interest expense, write-off of financing costs on extinguished debt, income taxes, depreciation and amortization and asset impairments. Amounts shown for adjusted EBITDA further remove (from EBITDA) the impact of certain cash and non-cash items related to acquisitions, certain carried interest incentive compensation (reversal) expense to align with the timing of associated revenue, costs associated with our reorganization, including cost-savings initiatives, and other non-recurring costs.

Adjusted EBITDA is calculated as follows (dollars in thousands):

	Three Months Ended March 31,	
	2020	2019
Net income attributable to CBRE Group, Inc.	$ 172,195	$ 164,409
Add:		
Depreciation and amortization	113,794	105,823
Asset impairments	75,171	89,037
Interest expense, net of interest income	16,016	21,192
Write-off of financing costs on extinguished debt	—	2,608
Provision for income taxes	51,182	43,878
EBITDA	428,358	426,947
Adjustments:		
Impact of fair value adjustments to real estate assets acquired in the Telford Acquisition (purchase accounting) that were sold in period	5,753	—
Costs incurred related to legal entity restructuring	3,241	—
Integration and other costs related to acquisitions	783	—
Carried interest incentive compensation (reversal) expense to align with the timing of associated revenue	(7,784)	7,336
Costs associated with our reorganization, including cost-savings initiatives (1)	—	15,749
Adjusted EBITDA	$ 430,351	$ 450,032

(1) Primarily represents severance costs related to headcount reductions in connection with our reorganization announced in the third quarter of 2018 that became effective January 1, 2019.

Our CODM is not provided with total asset information by segment and accordingly, does not measure or allocate total assets on a segment basis. As a result, we have not disclosed any asset information by segment.

Geographic Information

Revenue in the table below is allocated based upon the country in which services are performed (dollars in thousands):

	Three Months Ended March 31,	
	2020	2019
Revenue		
United States	$ 3,380,563	$ 3,036,707
United Kingdom	774,015	588,581
All other countries	1,734,590	1,510,222
Total revenue	$ 5,889,168	$ 5,135,510

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

This Quarterly Report on Form 10-Q (Quarterly Report) for CBRE Group, Inc. for the three months ended March 31, 2020 represents an update to the more detailed and comprehensive disclosures included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019(2019 Annual Report). Accordingly, you should read the following discussion in conjunction with the information included in our 2019 Annual Report as well as the unaudited financial statements included elsewhere in this Quarterly Report.

In addition, the statements and assumptions in this Quarterly Report that are not statements of historical fact are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 or Section 21E of the Securities Exchange Act of 1934, each as amended, including, in particular, statements about our plans, strategies and prospects as well as estimates of industry growth for the next quarter and beyond. For important information regarding these forward-looking statements, please see the discussion below under the caption "Cautionary Note on Forward-Looking Statements."

Overview

CBRE Group, Inc. is a Delaware corporation. References to "CBRE," "the company," "we," "us" and "our" refer to CBRE Group, Inc. and include all of its consolidated subsidiaries, unless otherwise indicated or the context requires otherwise.

We are the world's largest commercial real estate services and investment firm, based on 2019 revenue, with leading global market positions in our leasing, property sales, occupier outsourcing and valuation businesses. As of December 31, 2019, we operated in more than 530 offices worldwide and have more than 100,000 employees, excluding independent affiliates. We serve clients in more than 100 countries.

Our business is focused on providing services to real estate occupiers and investors. For occupiers, we provide facilities management, project management, transaction (both property sales and leasing) and consulting services, among others. For investors, we provide capital markets (property sales, mortgage origination, sales and servicing), leasing, investment management, property management, valuation and development services, among others. We provide services under the following brand names: "CBRE" (real estate advisory and outsourcing services); "CBRE Global Investors" (investment management); "Trammell Crow Company" (U.S. development); "Telford Homes" (U.K. development) and "Hana" (enterprise-focused flexible workspace solutions).

Our revenue mix has shifted in recent years toward more revenue earned as part of contracts encompassing multiple business lines as occupiers and investors increasingly prefer to purchase integrated, account-based services from firms that meet the full spectrum of their needs nationally and globally. We believe we are well-positioned to capture a substantial share of this growing market opportunity. We generate revenue from both management fees (large multi-year portfolio and per-project contracts) and commissions on transactions. Our contractual, fee-for-services businesses generally involve occupier outsourcing (including facilities and project management), property management, investment management, appraisal/valuation and loan servicing. In addition, our leasing services business line is largely recurring in nature over time.

In 2019, we generated revenue from a highly diversified base of clients, including more than 90 of the *Fortune* 100 companies. We have been an S&P 500 company since 2006 and in 2019 we were ranked #146 on the *Fortune* 500. We have been voted the most recognized commercial real estate brand in the Lipsey Company survey for 19 years in a row (including 2020). We have also been rated a World's Most Ethical Company by the Ethisphere Institute for seven consecutive years (including 2020) and are included in the Dow Jones World Sustainability Index and the Bloomberg Gender Equality Index.

In the first quarter of 2020, the outbreak of the widespread novel coronavirus (COVID-19) illness resulted in tremendous amounts of uncertainty, interruption of business activity and significantly impacted global markets. On March 11, 2020, the World Health Organization declared COVID-19 a pandemic, pointing to over 118,000 cases of the coronavirus illness in over 110 countries and territories around the world at that time. As of the date of this Quarterly Report, many of our locations and those of our clients are subject to significant operational limitations intended to mitigate the spread of COVID-19 and a substantial subset of our employee population has been transitioned to a remote work environment.

Critical Accounting Policies

Our consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States, or GAAP, which require us to make estimates and assumptions that affect reported amounts. The estimates and assumptions are based on historical experience and on other factors that we believe to be reasonable. Actual results may differ from those estimates. Critical accounting policies represent the areas where more significant judgments and estimates are used in the preparation of our consolidated financial statements. A discussion of such critical accounting policies, which include revenue recognition, goodwill and other intangible assets, and income taxes can be found in our 2019 Annual Report. There have been no material changes to these policies as of March 31, 2020.

New Accounting Pronouncements

See Note 2 of the Notes to Consolidated Financial Statements (Unaudited) set forth in Item 1 of this Quarterly Report.

Seasonality

A significant portion of our revenue is seasonal, which an investor should keep in mind when comparing our financial condition and results of operations on a quarter-by-quarter basis. Historically, our revenue, operating income, net income and cash flow from operating activities tend to be lowest in the first quarter, and highest in the fourth quarter of each year. Revenue, earnings and cash flow have generally been concentrated in the fourth calendar quarter due to the focus on completing sales, financing and leasing transactions prior to year-end. In light of the severe economic dislocations caused by COVID-19, and the resulting uncertainty in the business outlook, the quarterly distribution of financial results in 2020 may not conform with historical patterns.

Inflation

Our commissions and other variable costs related to revenue are primarily affected by commercial real estate market supply and demand, which may be affected by inflation. However, to date, we believe that general inflation has not had a material impact upon our operations.

Items Affecting Comparability

When you read our financial statements and the information included in this Quarterly Report, you should consider that we have experienced, and continue to experience, several material trends and uncertainties that have affected our financial condition and results of operations that make it challenging to predict our future performance based on our historical results. We believe that the following material trends and uncertainties are crucial to an understanding of the variability in our historical earnings and cash flows and the potential for continued variability in the future.

Macroeconomic Conditions

Economic trends and government policies affect global and regional commercial real estate markets as well as our operations directly. These include overall economic activity and employment growth, with specific sensitivity to growth in office-based employment; interest rate levels and changes in interest rates; the cost and availability of credit; and the impact of tax and regulatory policies. Periods of economic weakness or recession, significantly rising interest rates, fiscal uncertainty, declining employment levels, decreasing demand for commercial real estate, falling real estate values, disruption to the global capital or credit markets, or the public perception that any of these events may occur, will negatively affect the performance of our business.

Compensation is our largest expense and our sales and leasing professionals generally are paid on a commission and/or bonus basis that correlates with their revenue production. As a result, the negative effect of difficult market conditions on our operating margins is partially mitigated by the inherent variability of our compensation cost structure. In addition, when negative economic conditions have been particularly severe, we have moved decisively to lower operating expenses to improve financial performance, and then have restored certain expenses as economic conditions improved. Additionally, our contractual revenues have continued to increase primarily as a result of growth in our outsourcing business, and we believe this contractual revenue should help offset the negative impacts that macroeconomic deterioration could have on other parts of our business. Nevertheless, adverse global and regional economic trends could pose significant risks to the performance of our consolidated operations and financial condition.

Since 2010, commercial real estate markets have generally been characterized by increased demand for space, falling vacancies, higher rents and strong capital flows, leading to solid property sales and leasing activity. This healthy backdrop changed abruptly in the first quarter of 2020 with the emergence of the COVID-19 pandemic and resultant shutdown of economic activity across much of the world, which has led to sharp increases in unemployment, dislocations in debt and equity markets and businesses instituting cost-cutting and capital-preservation measures. There has been a significant impact on commercial real estate markets beginning in the first quarter of 2020, as many property owners and occupiers have put transactions on hold and withdrawn existing mandates, driving lower sales and leasing volumes. We expect to see this trend continue in the second quarter of 2020. For example, in the month of April 2020 our U.S. sales and leasing businesses experienced revenue declines of around 40%. The timing of these impacts varies by geography with Asian markets experiencing the earliest effects from the pandemic, while many other markets did not begin to experience significant effects until the end of the first quarter.

Real estate investment management and property development markets have been equally affected by the abrupt macroeconomic, real estate and capital markets changes brought about by COVID-19, which is another trend we expect to continue in the second quarter of 2020. Additionally, actively managed public real estate equity funds and programs continue to be pressured by a shift in investor preferences from active to passive portfolio strategies.

The performance of our global real estate services and investment businesses depends on an improvement in macroeconomic conditions, including a return to sustained economic growth, lifting of significant operational restrictions on businesses, solid job creation, stable global credit markets and positive business and investor sentiment.

Effects of Acquisitions

We historically have made significant use of strategic acquisitions to add and enhance service competencies around the world. On October 1, 2019, we acquired Telford Homes Plc (Telford) to expand our real estate development business outside the United States (Telford Acquisition). A leading developer of multifamily residential properties in the London area, Telford is reported in our Real Estate Investments segment. Telford was acquired for £267.1 million, or $328.5 million along with the assumption of $110.7 million (£90.0 million) of debt and the acquisition of cash from Telford of $7.9 million (£6.4 million). The Telford Acquisition was funded with borrowings under our revolving credit facility.

Strategic in-fill acquisitions have also played a key role in strengthening our service offerings. The companies we acquired have generally been regional or specialty firms that complement our existing platform, or independent affiliates in which, in some cases, we held a small equity interest. During 2019, we completed eight in-fill acquisitions: a leading advanced analytics software company based in the United Kingdom, a commercial and residential real estate appraisal firm headquartered in Florida, our former affiliate in Omaha, a project management firm in Australia, a valuation and consulting business in Switzerland, a leading project management firm in Israel, a full-service real estate firm in San Antonio with a focus on retail, office, medical office and land, and a debt-focused real estate investment management business in the United Kingdom. During the three months ended March 31, 2020, we acquired leading local facilities management firms in Spain and Italy, a U.S. firm that helps companies reduce telecommunications costs and a leading provider of workplace technology project management, consulting and procurement services to occupiers across the U.S.

We believe strategic acquisitions can significantly decrease the cost, time and resources necessary to attain a meaningful competitive position – or expand our capabilities – within targeted markets or business lines. In general, however, most acquisitions will initially have an adverse impact on our operating income and net income as a result of transaction-related expenditures, including severance, lease termination, transaction and deferred financing costs, as well as costs and charges associated with integrating the acquired business and integrating its financial and accounting systems into our own.

Our acquisition agreements often require us to pay deferred and/or contingent purchase price payments, subject to the acquired company achieving certain performance metrics, and/or the passage of time as well as other conditions. As of March 31, 2020, we have accrued deferred consideration totaling $111.3 million, which is included in accounts payable and accrued expenses and in other long-term liabilities in the accompanying consolidated balance sheets set forth in Item 1 of this Quarterly Report.

International Operations

We are closely monitoring the impact of the COVID-19 global pandemic on business conditions across all regions in which we operate. COVID-19 has significantly impacted our operations and has the potential to further reduce our business activity (see discussion in the "Risk Factors" section in Part II of this Quarterly Report). In addition, we continue to monitor developments related to the United Kingdom's withdrawal from the European Union (Brexit) and the uncertainty of the long-term economic and trade relationship between the United Kingdom and European Union. The continued uncertainty has the potential to impact our businesses in the United Kingdom and the rest of Europe, particularly sales and leasing activity in the United Kingdom. Any currency volatility associated with COVID-19, Brexit or other economic dislocations could impact our results of operations.

As we continue to increase our international operations through either acquisitions or organic growth, fluctuations in the value of the U.S. dollar relative to the other currencies in which we may generate earnings could adversely affect our business, financial condition and operating results. Our Real Estate Investments business has a significant amount of euro-denominated assets under management, or AUM, as well as associated revenue and earnings in Europe. In addition, our Global Workplace Solutions business also has a significant amount of its revenue and earnings denominated in foreign currencies, such as the euro and the British pound sterling. Fluctuations in foreign currency exchange rates have resulted and may continue to result in corresponding fluctuations in our AUM, revenue and earnings.

During the three months ended March 31, 2020, approximately 43% of our business was transacted in non-U.S. dollar currencies, the majority of which included the Australian dollar, British pound sterling, Canadian dollar, Chinese yuan, euro, Indian rupee, Japanese yen, Singapore dollar and Swiss franc. The following table sets forth our revenue derived from our most significant currencies (U.S. dollars in thousands):

	Three Months Ended March 31,			
	2020		2019	
United States dollar	$ 3,380,563	57.4 %	$ 3,036,707	59.1 %
British pound sterling	774,015	13.1 %	588,581	11.5 %
euro	616,968	10.5 %	530,425	10.3 %
Canadian dollar	193,235	3.2 %	161,896	3.2 %
Indian rupee	135,526	2.3 %	112,473	2.2 %
Japanese yen	98,382	1.7 %	66,837	1.3 %
Australian dollar	94,141	1.6 %	87,390	1.7 %
Swiss franc	75,677	1.3 %	43,344	0.8 %
Chinese yuan	75,456	1.3 %	73,593	1.4 %
Singapore dollar	67,904	1.2 %	64,711	1.3 %
Other currencies (1)	377,301	6.4 %	369,553	7.2 %
Total revenue	$ 5,889,168	100.0 %	$ 5,135,510	100.0 %

(1) Approximately 37 currencies comprise 6.4% and 7.2% of our revenues for the three months ended March 31, 2020 and 2019, respectively.

Although we operate globally, we report our results in U.S. dollars. As a result, the strengthening or weakening of the U.S. dollar may positively or negatively impact our reported results. For example, we estimate that had the British pound sterling-to-U.S. dollar exchange rates been 10% higher during the three months ended March 31, 2020, the net impact would have been a decrease in pre-tax income of $1.0 million. Had the euro-to-U.S. dollar exchange rates been 10% higher during thethree months ended March 31, 2020, the net impact would have been an increase in pre-tax income of $1.9 million. These hypothetical calculations estimate the impact of translating results into U.S. dollars and do not include an estimate of the impact that a 10% change in the U.S. dollar against other currencies would have had on our foreign operations.

Due to the constantly changing currency exposures to which we are subject and the volatility of currency exchange rates, we cannot predict the effect of exchange rate fluctuations upon future operating results. In addition, fluctuations in currencies relative to the U.S. dollar may make it more difficult to perform period-to-period comparisons of our reported results of operations. Our international operations also are subject to, among other things, political instability and changing regulatory environments, which affect the currency markets and which as a result may adversely affect our future financial condition and results of operations. We routinely monitor these risks and related costs and evaluate the appropriate amount of oversight to allocate towards business activities in foreign countries where such risks and costs are particularly significant.

Results of Operations

The following table sets forth items derived from our consolidated statements of operations for the three months ended March 31, 2020 and 2019 (dollars in thousands):

	Three Months Ended March 31,			
	2020		2019	
Revenue:				
Fee revenue:				
Global workplace solutions	$ 807,562	13.7 %	$ 691,895	13.5 %
Property and advisory project management	308,679	5.2 %	288,119	5.6 %
Valuation	147,752	2.5 %	138,326	2.7 %
Loan servicing	56,680	1.0 %	46,018	0.9 %
Advisory leasing	607,111	10.3 %	622,640	12.1 %
Capital markets:				
Advisory sales	430,956	7.3 %	385,655	7.5 %
Commercial mortgage origination	123,082	2.1 %	120,879	2.4 %
Investment management	121,678	2.1 %	106,308	2.1 %
Development services	89,792	1.5 %	28,885	0.5 %
Total fee revenue	2,693,292	45.7 %	2,428,725	47.3 %
Pass through costs also recognized as revenue	3,195,876	54.3 %	2,706,785	52.7 %
Total revenue	5,889,168	100.0 %	5,135,510	100.0 %
Costs and expenses:				
Cost of revenue	4,712,674	80.0 %	4,022,034	78.3 %
Operating, administrative and other	790,066	13.4 %	792,876	15.4 %
Depreciation and amortization	113,794	1.9 %	105,823	2.2 %
Asset impairments	75,171	1.3 %	89,037	1.7 %
Total costs and expenses	5,691,705	96.6 %	5,009,770	97.6 %
Gain on disposition of real estate	22,827	0.3 %	19,247	0.4 %
Operating income	220,290	3.7 %	144,987	2.8 %
Equity income from unconsolidated subsidiaries	20,631	0.4 %	72,664	1.4 %
Other (loss) income	(193)	0.0 %	20,853	0.4 %
Interest expense, net of interest income	16,016	0.3 %	21,192	0.4 %
Write-off of financing costs on extinguished debt	—	0.0 %	2,608	0.0 %
Income before provision for income taxes	224,712	3.8 %	214,704	4.2 %
Provision for income taxes	51,182	0.9 %	43,878	0.9 %
Net income	173,530	2.9 %	170,826	3.3 %
Less: Net income attributable to non-controlling interests	1,335	0.0 %	6,417	0.1 %
Net income attributable to CBRE Group, Inc.	$ 172,195	2.9 %	$ 164,409	3.2 %
Adjusted EBITDA	$ 430,351	7.3 %	$ 450,032	8.8 %

Fee revenue and adjusted EBITDA are not recognized measurements under GAAP. When analyzing our operating performance, investors should use these measures in addition to, and not as an alternative for, their most directly comparable financial measure calculated and presented in accordance with GAAP. We generally use these non-GAAP financial measures to evaluate operating performance and for other discretionary purposes. We believe 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. Because not all companies use identical calculations, our presentation of fee revenue and adjusted EBITDA may not be comparable to similarly titled measures of other companies.

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. We believe that investors may find this measure useful to analyze the company's overall financial performance because it excludes costs reimbursable by clients, and as such provides greater visibility into the underlying performance of our business.

EBITDA represents earnings before net interest expense, write-off of financing costs on extinguished debt, income taxes, depreciation and amortization and asset impairments. Amounts shown for adjusted EBITDA further remove (from EBITDA) the impact of certain cash and non-cash items related to acquisitions, certain carried interest incentive compensation (reversal) expense to align with the timing of associated revenue, costs associated with our reorganization, including cost-savings initiatives, and other non-recurring costs. We believe 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 effects of acquisitions, which would include impairment charges of goodwill and intangibles created from acquisitions, the effects of financings and income taxes and the accounting effects of capital spending.

Adjusted EBITDA is not intended to be a measure of free cash flow for our discretionary use because it does not consider certain cash requirements such as tax and debt service payments. This measure may also differ from the amounts calculated under similarly titled definitions in our debt instruments, which 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. We also use adjusted EBITDA as a significant component when measuring our operating performance under our employee incentive compensation programs.

Adjusted EBITDA is calculated as follows (dollars in thousands):

	Three Months Ended March 31,	
	2020	2019
Net income attributable to CBRE Group, Inc.	$ 172,195	$ 164,409
Add:		
Depreciation and amortization	113,794	105,823
Asset impairments	75,171	89,037
Interest expense, net of interest income	16,016	21,192
Write-off of financing costs on extinguished debt	—	2,608
Provision for income taxes	51,182	43,878
EBITDA	428,358	426,947
Adjustments:		
Impact of fair value adjustments to real estate assets acquired in the Telford Acquisition (purchase accounting) that were sold in period	5,753	—
Costs incurred related to legal entity restructuring	3,241	—
Integration and other costs related to acquisitions	783	—
Carried interest incentive compensation (reversal) expense to align with the timing of associated revenue	(7,784)	7,336
Costs associated with our reorganization, including cost-savings initiatives (1)	—	15,749
Adjusted EBITDA	$ 430,351	$ 450,032

(1) Primarily represents severance costs related to headcount reductions in connection with our reorganization announced in the third quarter of 2018 that became effective January 1, 2019.

Three Months Ended March 31, 2020 Compared to the Three Months Ended March 31, 2019

We reported consolidated net income of $172.2 million for the three months ended March 31, 2020 on revenue of $5.9 billion as compared to consolidated net income of $164.4 million on revenue of $5.1 billion for the three months ended March 31, 2019.

Our revenue on a consolidated basis for the three months ended March 31, 2020 increased by $753.7 million, or 14.7%, as compared to the three months ended March 31, 2019. The revenue increase reflects strong organic growth fueled by higher revenue in our Global Workplace Solutions segment (up 18.3%) and improved revenue in our Advisory Services segment due to property and advisory project management revenue (up 8.7%) and loan servicing revenue (up 23.2%) as well as increased advisory sales (up 11.7%). Higher revenue in our Real Estate Investments segment (up 56.4%) driven by the Telford Acquisition also contributed to the increase. Foreign currency translation had a 0.7% negative impact on total revenue during the three months ended March 31, 2020, primarily driven by weakness in the Argentine peso, Australian dollar, Brazilian real and euro.

Our cost of revenue on a consolidated basis increased by $690.6 million, or 17.2%, during the three months ended March 31, 2020 as compared to the same period in 2019. This increase was primarily due to higher costs associated with our Global Workplace Solutions segment. Higher costs in our property and advisory project management business as well as higher costs in our Real Estate Investments segment (due to the Telford Acquisition) also contributed to the increase. These items were partially offset by the impact of foreign currency translation, which had a 0.7% positive impact on total cost of revenue during the three months ended March 31, 2020. Cost of revenue as a percentage of revenue increased from 78.3% for the three months ended March 31, 2019 to 80.0% for the three months ended March 31, 2020, primarily driven by our mix of revenue, with revenue from our Global Workplace Solutions segment, which has a lower margin than our other revenue streams, comprising a higher percentage of revenue than in the prior year period.

Our operating, administrative and other expenses on a consolidated basis were essentially flat at $790.1 million for the three months ended March 31, 2020 as compared to $792.9 million for the same period in 2019. Operating expenses as a percentage of revenue decreased from 15.4% for the three months ended March 31, 2019 to 13.4% for the three months ended March 31, 2020, reflecting the operating leverage inherent in our business.

Our depreciation and amortization expense on a consolidated basis increased by $8.0 million, or 7.5%, during the three months ended March 31, 2020 as compared to the same period in 2019. This increase was primarily attributable to a rise in depreciation expense of $9.4 million during the three months ended March 31, 2020 driven by technology-related capital expenditures.

Our asset impairments on a consolidated basis totaled $75.2 million and $89.0 million for the three months ended March 31, 2020 and 2019, respectively. During the three months ended March 31, 2020, we recorded $50.2 million of non-cash asset impairment charges in our Global Workplace Solutions segment and a non-cash goodwill impairment charge of $25.0 million in our Real Estate Investments segment. As a result of the recent global economic disruption and uncertainty due to the novel coronavirus (COVID-19) pandemic, we deemed there to be triggering events requiring testing of certain assets for impairment as of March 31, 2020. Based on these tests, we recorded the aforementioned non-cash impairment charges, which were driven by lower anticipated cash flows in certain businesses directly resulting from a downturn in forecasts as well as increased forecast risk due to COVID-19. During the three months ended March 31, 2019, we recorded a non-cash intangible asset impairment charge of $89.0 million in our Real Estate Investments segment. This non-cash write-off resulted from a review of the anticipated cash flows and the decrease in assets under management in our public securities business driven in part by continued industry-wide shift in investor preference for passive investment programs.

Our gain on disposition of real estate on a consolidated basis increased by $3.6 million, or 18.6%, during the three months ended March 31, 2020 as compared to the same period in 2019. These gains resulted from property sales within our Real Estate Investments segment.

Our equity income from unconsolidated subsidiaries on a consolidated basis decreased by $52.0 million, or 71.6%, during the three months ended March 31, 2020 as compared to the same period in 2019, primarily driven by lower equity earnings associated with gains on property sales reported in our Real Estate Investments segment.

Our consolidated interest expense, net of interest income, decreased by $5.2 million, or 24.4%, for the three months ended March 31, 2020 as compared to the same period in 2019. This was primarily driven by an increase in interest income during the first quarter of 2020.

Our write-off of financing costs on extinguished debt on a consolidated basis was $2.6 million for the three months ended March 31, 2019. The costs for the three months ended March 31, 2019 were incurred in connection with the refinancing of our credit agreement.

Our provision for income taxes on a consolidated basis was $51.2 million for the three months ended March 31, 2020 as compared to $43.9 million for the same period in 2019. Our effective tax rate increased from 20.4% for the three months ended March 31, 2019 to 22.8% for the three months ended March 31, 2020. On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) was enacted in the United States in response to the COVID-19 pandemic. The CARES Act has not had, nor is it expected to have, a significant impact on our effective tax rate for 2020.

Segment Operations

We organize our operations around, and publicly report our financial results on, three global business segments: (1) Advisory Services; (2) Global Workplace Solutions; and (3) Real Estate Investments. For additional information on our segments, see Note 14 of the Notes to Consolidated Financial Statements (Unaudited) set forth in Item 1 of this Quarterly Report.

Advisory Services

The following table summarizes our results of operations for our Advisory Services operating segment for the three months ended March 31, 2020 and 2019 (dollars in thousands):

	Three Months Ended March 31,			
	2020		2019	
Revenue:				
Fee revenue:				
Property and advisory project management	$ 308,679	16.0 %	$ 288,119	15.7 %
Valuation	147,752	7.7 %	138,326	7.5 %
Loan servicing	56,680	2.9 %	46,018	2.5 %
Advisory leasing	607,111	31.4 %	622,640	33.9 %
Capital markets:				
Advisory sales	430,956	22.3 %	385,655	21.1 %
Commercial mortgage origination	123,082	6.4 %	120,879	6.6 %
Total fee revenue	1,674,260	86.7 %	1,601,637	87.3 %
Pass through costs also recognized as revenue	257,264	13.3 %	232,765	12.7 %
Total revenue	1,931,524	100.0 %	1,834,402	100.0 %
Costs and expenses:				
Cost of revenue	1,158,009	60.0 %	1,083,099	59.0 %
Operating, administrative and other	487,463	25.2 %	496,618	27.1 %
Depreciation and amortization	78,952	4.1 %	71,647	3.9 %
Operating income	207,100	10.7 %	183,038	10.0 %
Equity income from unconsolidated subsidiaries	1,337	0.1 %	675	0.0 %
Other income	2,277	0.1 %	1,679	0.1 %
Less: Net income (loss) attributable to non-controlling interests	253	0.0 %	(145)	0.0 %
Add-back: Depreciation and amortization	78,952	4.1 %	71,647	3.9 %
EBITDA	289,413	15.0 %	257,184	14.0 %
Adjustments:				
Costs incurred related to legal entity restructuring	3,241	0.2 %	—	0.0 %
Costs associated with our reorganization, including cost-savings initiatives (1)	—	0.0 %	6,666	0.4 %
Adjusted EBITDA and Adjusted EBITDA on revenue margin	$ 292,654	15.2 %	$ 263,850	14.4 %
Adjusted EBITDA on fee revenue margin		17.5 %		16.5 %

(1) Primarily represents severance costs related to headcount reductions in connection with our reorganization announced in the third quarter of 2018 that became effective January 1, 2019.

Three Months Ended March 31, 2020 Compared to the Three Months Ended March 31, 2019

Revenue increased by $97.1 million, or 5.3%, for the three months ended March 31, 2020 as compared to the three months ended March 31, 2019. The revenue increase reflects strong organic growth fueled by higher sales and loan servicing activity as well as improved property and project management revenue. Foreign currency translation had a 0.8% negative impact on total revenue during the three months ended March 31, 2020, primarily driven by weakness in the Australian dollar, Brazilian real and euro.

Cost of revenue increased by $74.9 million, or 6.9%, for the three months ended March 31, 2020 as compared to the same period in 2019, primarily due to higher costs in our property and project management business. Higher producer bonuses also contributed to the increase. Foreign currency translation had a 1.0% positive impact on total cost of revenue during the three months ended March 31, 2020. Cost of revenue as a percentage of revenue was relatively consistent at 60.0% for the three months ended March 31, 2020 versus 59.0% for the same period in 2019.

Operating, administrative and other expenses decreased by $9.2 million, or 1.8%, for the three months ended March 31, 2020 as compared to the three months ended March 31, 2019. This decrease was largely driven by the overall impact of COVID-19, which resulted in lower bonus and stock compensation expense, partially offset by higher bad debt expense and accruals for losses on loans. Foreign currency translation also had a 0.9% positive impact on total operating expenses during the three months ended March 31, 2020. These items were somewhat reduced by the impact of higher payroll-related costs (partially driven by increased headcount).

In connection with the origination and sale of mortgage loans for which the company retains servicing rights, we record servicing assets or liabilities based on the fair value of the retained mortgage servicing rights (MSRs) on the date the loans are sold. Upon origination of a mortgage loan held for sale, the fair value of the mortgage servicing rights to be retained is included in the forecasted proceeds from the anticipated loan sale and results in a net gain (which is reflected in revenue). Subsequent to the initial recording, MSRs are amortized (within amortization expense) and carried at the lower of amortized cost or fair value in other intangible assets in the accompanying consolidated balance sheets. They are amortized in proportion to and over the estimated period that the servicing income is expected to be received. For the three months ended March 31, 2020, MSRs contributed to operating income $35.6 million of gains recognized in conjunction with the origination and sale of mortgage loans, offset by $30.5 million of amortization of related intangible assets. For the three months ended March 31, 2019, MSRs contributed to operating income $38.3 million of gains recognized in conjunction with the origination and sale of mortgage loans, offset by $27.7 million of amortization of related intangible assets.

Global Workplace Solutions

The following table summarizes our results of operations for our Global Workplace Solutions operating segment for the three months ended March 31, 2020 and 2019 (dollars in thousands):

	Three Months Ended March 31,			
	2020		2019	
Revenue:				
Fee revenue:				
Global workplace solutions	$ 807,562	21.6 %	$ 691,895	21.9 %
Total fee revenue	807,562	21.6 %	691,895	21.9 %
Pass through costs also recognized as revenue	2,938,612	78.4 %	2,474,020	78.1 %
Total revenue	3,746,174	100.0 %	3,165,915	100.0 %
Costs and expenses:				
Cost of revenue	3,499,616	93.4 %	2,938,935	92.8 %
Operating, administrative and other	147,821	3.9 %	135,472	4.3 %
Depreciation and amortization	30,398	0.8 %	29,483	0.9 %
Asset impairments	50,171	1.3 %	—	0.0 %
Operating income	18,168	0.6 %	62,025	2.0 %
Equity income (loss) from unconsolidated subsidiaries	392	0.0 %	(833)	0.0 %
Other income (loss)	169	0.0 %	(16)	0.0 %
Less: Net loss attributable to non-controlling interests	—	0.0 %	(158)	0.0 %
Add-back: Depreciation and amortization	30,398	0.8 %	29,483	0.9 %
Add-back: Asset impairments	50,171	1.3 %	—	0.0 %
EBITDA	99,298	2.7 %	90,817	2.9 %
Adjustments:				
Costs associated with our reorganization, including cost-savings initiatives (1)	—	0.0 %	8,862	0.2 %
Adjusted EBITDA and Adjusted EBITDA on revenue margin	$ 99,298	2.7 %	$ 99,679	3.1 %
Adjusted EBITDA on fee revenue margin		12.3 %		14.4 %

(1) Primarily represents severance costs related to headcount reductions in connection with our reorganization announced in the third quarter of 2018 that became effective January 1, 2019.

Three Months Ended March 31, 2020 Compared to the Three Months Ended March 31, 2019

Revenue increased by $580.3 million, or 18.3%, for the three months ended March 31, 2020 as compared to the three months ended March 31, 2019. The revenue increase was fueled by growth in the market for real estate outsourcing services. Foreign currency translation had a 0.7% negative impact on total revenue during the three months ended March 31, 2020, primarily driven by weakness in the Argentine peso, Brazilian real and euro.

Cost of revenue increased by $560.7 million, or 19.1%, for the three months ended March 31, 2020 as compared to the same period in 2019, driven by the higher revenue. Foreign currency translation had a 0.7% positive impact on total cost of revenue during the three months ended March 31, 2020. Cost of revenue as a percentage of revenue was relatively consistent at 93.4% for the three months ended March 31, 2020 versus 92.8% for the same period in 2019.

Operating, administrative and other expenses increased by $12.3 million, or 9.1%, for the three months ended March 31, 2020 as compared to the three months ended March 31, 2019. The increase was largely driven by higher payroll-related and temporary help costs incurred, partially attributable to investments made in both people and technology associated with efforts to remediate material weaknesses in our Europe, Middle East and Africa (EMEA) region. These costs were partially offset by the impact of $8.5 million of severance costs incurred in the first quarter of 2019 in connection with our reorganization, including cost-savings initiatives, which did not recur in the first quarter of 2020. Additionally, foreign currency translation had a 1.1% positive impact on total operating expenses during the three months ended March 31, 2020.

Real Estate Investments

The following table summarizes our results of operations for our Real Estate Investments operating segment for the three months ended March 31, 2020 and 2019 (dollars in thousands):

	Three Months Ended March 31,			
	2020		2019	
Revenue:				
Investment management	$ 121,678	57.5 %	$ 106,308	78.6 %
Development services	89,792	42.5 %	28,885	21.4 %
Total revenue	211,470	100.0 %	135,193	100.0 %
Costs and expenses:				
Cost of revenue	55,049	26.0 %	—	0.0 %
Operating, administrative and other	154,782	73.2 %	160,786	118.9 %
Depreciation and amortization	4,444	2.1 %	4,693	3.5 %
Asset impairments	25,000	11.8 %	89,037	65.9 %
Gain on disposition of real estate	22,827	10.8 %	19,247	14.2 %
Operating loss	(4,978)	(2.3 %)	(100,076)	(74.1 %)
Equity income from unconsolidated subsidiaries	18,902	8.8 %	72,822	53.9 %
Other (loss) income	(2,639)	(1.2 %)	19,190	14.2 %
Less: Net income attributable to non-controlling interests	1,082	0.5 %	6,720	5.0 %
Add-back: Depreciation and amortization	4,444	2.1 %	4,693	3.5 %
Add-back: Asset impairments	25,000	11.8 %	89,037	65.9 %
EBITDA	39,647	18.7 %	78,946	58.4 %
Adjustments:				
Impact of fair value adjustments to real estate assets acquired in the Telford Acquisition (purchase accounting) that were sold in period	5,753	2.7 %	—	0.0 %
Integration and other costs related to acquisitions	783	0.4 %	—	0.0 %
Carried interest incentive compensation (reversal) expense to align with the timing of associated revenue	(7,784)	(3.6 %)	7,336	5.4 %
Costs associated with our reorganization, including cost-savings initiatives (1)	—	0.0 %	221	0.2 %
Adjusted EBITDA	$ 38,399	18.2 %	$ 86,503	64.0 %

(1) Primarily represents severance costs related to headcount reductions in connection with our reorganization announced in the third quarter of 2018 that became effective January 1, 2019.

Three Months Ended March 31, 2020 Compared to the Three Months Ended March 31, 2019

Revenue increased by $76.3 million, or 56.4%, for the three months ended March 31, 2020 as compared to the three months ended March 31, 2019, primarily driven by the Telford Acquisition in our development services line of business as well as higher carried interest revenue and increased asset management fees. Foreign currency translation had a 0.7% negative impact on total revenue during the three months ended March 31, 2020, primarily driven by weakness in the euro.

Cost of revenue was $55.0 million for the three months ended March 31, 2020 and was attributable to Telford, which we acquired on October 1, 2019.

Operating, administrative and other expenses decreased by $6.0 million, or 3.7%, for the three months ended March 31, 2020 as compared to the same period in 2019, primarily driven lower carried interest expense and lower bonuses in our development services line of business (driven by lower property sales in the first quarter of 2020 as compared to the same period in 2019, which were reflected in equity income from unconsolidated subsidiaries). These items were partially offset by higher costs attributable to the Telford Acquisition as well as investments in our new flexible space offering. Foreign currency translation also had a 0.5% positive impact on total operating expenses during the three months ended March 31, 2020.

A roll forward of our AUM by product type for the three months ended March 31, 2020 is as follows (dollars in billions):

	Funds	Separate Accounts	Securities	Total
Balance at December 31, 2019	$ 40.1	$ 64.9	$ 7.9	$ 112.9
Inflows	1.9	3.0	0.4	5.3
Outflows	(0.9)	(4.2)	(0.7)	(5.8)
Market depreciation	(0.2)	(2.1)	(2.0)	(4.3)
Balance at March 31, 2020	$ 40.9	$ 61.6	$ 5.6	$ 108.1

AUM generally refers to the properties and other assets with respect to which we provide (or participate in) oversight, investment management services and other advice, and which generally consist of real estate properties or loans, securities portfolios and investments in operating companies and joint ventures. Our AUM is intended principally to reflect the extent of our presence in the real estate market, not the basis for determining our management fees. Our assets under management consist of:

- the total fair market value of the real estate properties and other assets either wholly-owned or held by joint ventures and other entities in which our sponsored funds or investment vehicles and client accounts have invested or to which they have provided financing. Committed (but unfunded) capital from investors in our sponsored funds is not included in this component of our AUM. The value of development properties is included at estimated completion cost. In the case of real estate operating companies, the total value of real properties controlled by the companies, generally through joint ventures, is included in AUM; and
- the net asset value of our managed securities portfolios, including investments (which may be comprised of committed but uncalled capital) in private real estate funds under our fund of funds investments.

Our calculation of AUM may differ from the calculations of other asset managers, and as a result, this measure may not be comparable to similar measures presented by other asset managers.

Liquidity and Capital Resources

We believe that we can satisfy our working capital and funding requirements with internally generated cash flow and, as necessary, borrowings under our revolving credit facility. During the three months ended March 31, 2020, we incurred $48.9 million of capital expenditures, net of tenant concessions received, which includes approximately $20.0 million related to technology enablement. Given the uncertainty caused by COVID-19, we are not providing an estimate of net capital expenditures anticipated for the fiscal year ended December 31, 2020 as we are currently re-evaluating such spend, although we currently expect net capital expenditures to be meaningfully lower than initially forecast in our 2019 Annual Report. As of March 31, 2020, we had aggregate commitments of $82.5 million to fund future co-investments in our Real Estate Investments business, $35.5 million of which is expected to be funded in 2020. Additionally, as of March 31, 2020, we are committed to fund $42.7 million of additional capital to unconsolidated subsidiaries within our Real Estate Investments business, which we may be required to fund at any time. As of March 31, 2020, we had $2.8 billion of borrowings available under our revolving credit facility.

We have historically relied on our internally generated cash flow and our revolving credit facility to fund our working capital, capital expenditure and general investment requirements (including strategic in-fill acquisitions) and have not sought other external sources of financing to help fund these requirements. In the absence of extraordinary events or a large strategic acquisition, we anticipate that our cash flow from operations and our revolving credit facility would be sufficient to meet our anticipated cash requirements for the foreseeable future, and at a minimum for the next 12 months. Given compensation is our largest expense and our sales and leasing professionals generally are paid on a commission and/or bonus basis that correlates with their revenue production, the negative effect of difficult market conditions is partially mitigated by the inherent variability of our compensation cost structure. In addition, when negative economic conditions have been particularly severe, we have moved decisively to lower operating expenses to improve financial performance, and then have restored certain expenses as economic conditions improved. We may seek to take advantage of market opportunities to refinance existing debt instruments, as we have done in the past, with new debt instruments at interest rates, maturities and terms we deem attractive. We may also, from time to time in our sole discretion, purchase, redeem, or retire our existing senior notes, through tender offers, in privately negotiated or open market transactions, or otherwise.

As noted above, we believe that any future significant acquisitions that we may make could require us to obtain additional debt or equity financing. In the past, we have been able to obtain such financing for material transactions on terms that we believed to be reasonable. However, it is possible that we may not be able to obtain acquisition financing on favorable terms, or at all, in the future if we decide to make any further significant acquisitions.

Our long-term liquidity needs, other than those related to ordinary course obligations and commitments such as operating leases, are generally comprised of three elements. The first is the repayment of the outstanding and anticipated principal amounts of our long-term indebtedness. If our cash flow is insufficient to repay our long-term debt when it comes due, then we expect that we would need to refinance such indebtedness or otherwise amend its terms to extend the maturity dates. We cannot make any assurances that such refinancing or amendments would be available on attractive terms, if at all.

The second long-term liquidity need is the payment of obligations related to acquisitions. Our acquisition structures often include deferred and/or contingent purchase price payments in future periods that are subject to the passage of time or achievement of certain performance metrics and other conditions. As of March 31, 2020 and December 31, 2019, we had accrued $111.3 million ($37.1 million of which was a current liability) and $111.7 million ($41.6 million of which was a current liability), respectively, of deferred purchase consideration, which was included in accounts payable and accrued expenses and in other long-term liabilities in the accompanying consolidated balance sheets set forth in Item 1 of this Quarterly Report.

As described in our 2019 Annual Report, our board of directors has authorized a program for the company to repurchase up to $500.0 million of our Class A common stock. As of December 31, 2019, $400.0 million was available for share repurchases under the authorized repurchase program. During the three months ended March 31, 2020, we spent $50.0 million to repurchase, through an existing stock repurchase plan entered into pursuant to Rule 10b5-1 under the Exchange Act, 1,050,084 shares of our Class A common stock with an average price paid per share of $47.62. As of May 7, 2020, we had $350.0 million of capacity remaining under our current stock repurchase program. Our stock repurchases have been funded with cash on hand and we intend to continue funding future stock repurchases with existing cash. We may utilize our stock repurchase program to continue offsetting the impact of our stock-based compensation program and on a more opportunistic basis if we believe our stock presents a compelling investment compared to other discretionary uses. The timing of future repurchases, and the actual amounts repurchased, will depend on a variety of factors, including the market price of our common stock, general market and economic conditions and other factors.

Historical Cash Flows

Operating Activities

Net cash used in operating activities totaled $136.3 million for the three months ended March 31, 2020, a decrease of $256.3 million as compared to the three months ended March 31, 2019. The decrease in net cash used in operating activities was primarily driven by a lower overall net increase in working capital during the first quarter of 2020 as compared to the same period in 2019.

Investing Activities

Net cash used in investing activities totaled $92.2 million for the three months ended March 31, 2020, an increase of $18.3 million as compared to the three months ended March 31, 2019. This increase was largely driven by higher amounts paid for in-fill acquisitions as well as greater contributions to unconsolidated subsidiaries during the three months ended March 31, 2020. These increases were partially offset by higher distributions received from unconsolidated subsidiaries during the three months ended March 31, 2020.

Financing Activities

Net cash used in financing activities totaled $93.9 million for the three months ended March 31, 2020 as compared to net cash provided by financing activities of $300.0 million for the three months ended March 31, 2019. The decrease of approximately $393.9 million was primarily due to the impact of net borrowings of $336.0 million from our revolving credit facility in the first quarter of 2019 that did not recur in the first quarter of 2020.

Indebtedness

Our level of indebtedness increases the possibility that we may be unable to pay the principal amount of our indebtedness and other obligations when due. In addition, we may incur additional debt from time to time to finance strategic acquisitions, investments, joint ventures or for other purposes, subject to the restrictions contained in the documents governing our indebtedness. If we incur additional debt, the risks associated with our leverage, including our ability to service our debt, would increase.

Long-Term Debt

We maintain credit facilities with third-party lenders, which we use for a variety of purposes. On March 4, 2019, CBRE Services, Inc. (CBRE Services) entered into an incremental assumption agreement with respect to its credit agreement, dated October 31, 2017 (such credit agreement, as amended by a December 20, 2018 incremental loan assumption agreement and such March 4, 2019 incremental assumption agreement, the 2019 Credit Agreement), which (i) extended the maturity of the U.S. dollar tranche A term loans under such credit agreement, (ii) extended the termination date of the revolving credit commitments available under such credit agreement and (iii) made certain changes to the interest rates and fees applicable to such tranche A term loans and revolving credit commitments under such credit agreement. The proceeds from the new tranche A term loan facility under the 2019 Credit Agreement were used to repay the $300.0 million of tranche A term loans outstanding under the credit agreement in effect prior to the entry into this 2019 incremental assumption agreement.

The 2019 Credit Agreement is a senior unsecured credit facility. As of March 31, 2020, the 2019 Credit Agreement provided for the following: (1) a $2.8 billion incremental revolving credit facility, which includes the capacity to obtain letters of credit and swingline loans and terminates on March 4, 2024; (2) a $300.0 million incremental tranche A term loan facility maturing on March 4, 2024, requiring quarterly principal payments unless our leverage ratio (as defined in the 2019 Credit Agreement) is less than or equal to 2.50 to 1.00 on the last day of the fiscal quarter immediately preceding any such payment date and (3) a €400.0 million term loan facility due and payable in full at maturity on December 20, 2023.

On August 13, 2015, CBRE Services issued $600.0 million in aggregate principal amount of 4.875% senior notes due March 1, 2026 (the 4.875% senior notes) at a price equal to 99.24% of their face value. The 4.875% senior notes are unsecured obligations of CBRE Services, senior to all of its current and future subordinated indebtedness, but effectively subordinated to all of its current and future secured indebtedness. Interest accrues at a rate of 4.875% per year and is payable semi-annually in arrears on March 1 and September 1.

On September 26, 2014, CBRE Services issued $300.0 million in aggregate principal amount of 5.25% senior notes due March 15, 2025 (the 5.25% senior notes). On December 12, 2014, CBRE Services issued an additional $125.0 million in aggregate principal amount of 5.25% senior notes due March 15, 2025 at a price equal to 101.5% of their face value, plus interest deemed to have accrued from September 26, 2014. The 5.25% senior notes are unsecured obligations of CBRE Services, senior to all of its current and future subordinated indebtedness, but effectively subordinated to all of its current and future secured indebtedness. Interest accrues at a rate of 5.25% per year and is payable semi-annually in arrears on March 15 and September 15.

The indentures governing our 4.875% senior notes and 5.25% senior notes contain restrictive covenants that, among other things, limit our ability to create or permit liens on assets securing indebtedness, enter into sale/leaseback transactions and enter into consolidations or mergers. In addition, these indentures require that the 4.875% senior notes and the 5.25% senior notes be jointly and severally guaranteed on a senior basis by CBRE Group, Inc. and each domestic subsidiary of CBRE Services that guarantees the 2019 Credit Agreement.

Our 2019 Credit Agreement, 4.875% senior notes and 5.25% senior notes are all fully and unconditionally and jointly and severally guaranteed by us and certain subsidiaries (see Exhibit 22.1 for a listing of all such subsidiary guarantors). Combined summarized financial information for CBRE Group, Inc., (parent); CBRE Services (subsidiary issuer); and the guarantor subsidiaries (collectively referred to as the obligated group), which excludes investment balances in non-guarantor subsidiaries as well as income from consolidated non-guarantor subsidiaries, is as follows (dollars in thousands):

	March 31, 2020	December 31, 2019
Balance Sheet Data:		
Current assets	$ 3,217,414	$ 2,901,618
Noncurrent assets (1)	5,057,464	5,610,084
Total assets (1)	8,274,878	8,511,702
Current liabilities	$ 3,028,238	$ 2,893,775
Noncurrent liabilities	2,181,205	2,201,269
Total liabilities	5,209,443	5,095,044

	Three Months Ended March 31,	
	2020	2019
Statement of Operations Data:		
Revenue	$ 3,314,860	$ 2,966,117
Operating income	131,204	70,560
Net income	104,308	123,715

(1) Includes $162.5 million and $574.6 million as of March 31, 2020 and December 31, 2019, respectively, of intercompany loan receivables from non-guarantor subsidiaries. All intercompany balances and transactions between CBRE Group, CBRE Services and the guarantor subsidiaries have been eliminated.

The €400.0 million term loan facility under our 2019 Credit Agreement is also jointly and severally guaranteed by five of our foreign subsidiaries. Such subsidiaries have been omitted from the table above given they do not jointly and severally guarantee other amounts under the 2019 Credit Agreement, the 4.875% senior notes or the 5.25% senior notes. Additionally, such subsidiaries if considered in the aggregate as if they were a single subsidiary, would not constitute a significant subsidiary.

For additional information on all of our long-term debt, see Note 11 of the Notes to Consolidated Financial Statements set forth in Item 8 included in our 2019 Annual Report and Note 9 of the Notes to Consolidated Financial Statements (Unaudited) set forth in Item 1 of this Quarterly Report.

Short-Term Borrowings

We maintain a $2.8 billion revolving credit facility under the 2019 Credit Agreement and warehouse lines of credit with certain third-party lenders. For additional information on all of our short-term borrowings, see Note 11 of the Notes to Consolidated Financial Statements set forth in Item 8 included in our 2019 Annual Report and Notes 4 and 9 of the Notes to Consolidated Financial Statements (Unaudited) set forth in Item 1 of this Quarterly Report.

Off –Balance Sheet Arrangements

Our off-balance sheet arrangements are described in Note 11 of the Notes to Consolidated Financial Statements (Unaudited) set forth in Item 1 of this Quarterly Report and are incorporated by reference herein.

Cautionary Note on Forward-Looking Statements

This Quarterly Report includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. The words "anticipate," "believe," "could," "should," "propose," "continue," "estimate," "expect," "intend," "may," "plan," "predict," "project," "will" and similar terms and phrases are used in this Quarterly Report to identify forward-looking statements. Except for historical information contained herein, the matters addressed in this Quarterly Report are forward-looking statements. These statements relate to analyses and other information based on forecasts of future results and estimates of amounts not yet determinable. These statements also relate to our future prospects, developments and business strategies.

These forward-looking statements are made based on our management's expectations and beliefs concerning future events affecting us and are subject to uncertainties and factors relating to our operations and business environment, all of which are difficult to predict and many of which are beyond our control. These uncertainties and factors could cause our actual results to differ materially from those matters expressed in or implied by these forward-looking statements.

The following factors are among those, but are not only those, that may cause actual results to differ materially from the forward-looking statements:

- disruptions in general economic, political and regulatory conditions, particularly in geographies or industry sectors where our business may be concentrated;
- volatility or adverse developments in the securities, capital or credit markets, interest rate increases and conditions affecting the value of real estate assets, inside and outside the United States;
- poor performance of real estate investments or other conditions that negatively impact clients' willingness to make real estate or long-term contractual commitments and the cost and availability of capital for investment in real estate;
- disruptions to business, market and operational conditions related to the COVID-19 pandemic and the impact of government rules and regulations intended to mitigate the effects of this pandemic, including, without limitation, rules and regulations that impact us as a loan originator and servicer for U.S. Government Sponsored Enterprises;
- foreign currency fluctuations and changes in currency restrictions, trade sanctions and import-export and transfer pricing rules;
- changes in U.S. and international law and regulatory environments (including relating to anti-corruption, anti-money laundering, trade sanctions, tariffs, currency controls and other trade control laws), particularly in Asia, Africa, Russia, Eastern Europe and the Middle East, due to the level of political instability in those regions;
- our ability to compete globally, or in specific geographic markets or business segments that are material to us;
- our ability to identify, acquire and integrate accretive businesses;
- costs and potential future capital requirements relating to businesses we may acquire;
- integration challenges arising out of companies we may acquire;
- our ability to retain and incentivize key personnel;
- our ability to manage organizational challenges associated with our size;
- negative publicity or harm to our brand and reputation;
- increases in unemployment and general slowdowns in commercial activity;
- trends in pricing and risk assumption for commercial real estate services;
- the effect of significant changes in capitalization rates across different property types;
- a reduction by companies in their reliance on outsourcing for their commercial real estate needs, which would affect our revenues and operating performance;
- client actions to restrain project spending and reduce outsourced staffing levels;
- declines in lending activity of U.S. Government Sponsored Enterprises, regulatory oversight of such activity and our mortgage servicing revenue from the commercial real estate mortgage market;
- our ability to further diversify our revenue model to offset cyclical economic trends in the commercial real estate industry;
- our ability to attract new user and investor clients;

- our ability to retain major clients and renew related contracts;
- our ability to leverage our global services platform to maximize and sustain long-term cash flow;
- our ability to continue investing in our platform and client service offerings;
- our ability to maintain expense discipline;
- the emergence of disruptive business models and technologies;
- the ability of our investment management business to maintain and grow assets under management and achieve desired investment returns for our investors, and any potential related litigation, liabilities or reputational harm possible if we fail to do so;
- our ability to manage fluctuations in net earnings and cash flow, which could result from poor performance in our investment programs, including our participation as a principal in real estate investments;
- our leverage under our debt instruments as well as the limited restrictions therein on our ability to incur additional debt, and the potential increased borrowing costs to us from a credit-ratings downgrade;
- the ability of CBRE Capital Markets to periodically amend, or replace, on satisfactory terms, the agreements for its warehouse lines of credit;
- variations in historically customary seasonal patterns that cause our business not to perform as expected;
- litigation and its financial and reputational risks to us;
- our exposure to liabilities in connection with real estate advisory and property management activities and our ability to procure sufficient insurance coverage on acceptable terms;
- liabilities under guarantees, or for construction defects, that we incur in our development services business;
- our and our employees' ability to execute on, and adapt to, information technology strategies and trends;
- cybersecurity threats or other threats to our information technology networks, including the potential misappropriation of assets or sensitive information, corruption of data or operational disruption;
- our ability to comply with laws and regulations related to our global operations, including real estate licensure, tax, labor and employment laws and regulations, as well as the anti-corruption laws and trade sanctions of the U.S. and other countries;
- changes in applicable tax or accounting requirements;
- any inability for us to implement and maintain effective internal controls over financial reporting;
- the effect of implementation of new accounting rules and standards or the impairment of our goodwill and intangible assets; and
- the other factors described elsewhere in this Quarterly Report on Form 10-Q, included under the headings "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies," "Quantitative and Qualitative Disclosures About Market Risk" and Part II, Item 1A, "Risk Factors" or as described in our 2019 Annual Report, in particular in Part II, Item 1A "Risk Factors", or as described in the other documents and reports we file with the Securities and Exchange Commission (SEC).

Forward-looking statements speak only as of the date the statements are made. You should not put undue reliance on any forward-looking statements. We assume no obligation to update forward-looking statements to reflect actual results, changes in assumptions or changes in other factors affecting forward-looking information, except to the extent required by applicable securities laws. If we do update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect to those or other forward-looking statements. Additional information concerning these and other risks and uncertainties is contained in our other periodic filings with the SEC.

Investors and others should note that we routinely announce financial and other material information using our investor relations website (https://ir.cbre.com), SEC filings, press releases, public conference calls and webcasts. We use these channels of distribution to communicate with our investors and members of the public about our company, our services and other items of interest. Information contained on our website is not part of this Quarterly Report or our other filings with the SEC.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

The information in this section should be read in connection with the information on market risk related to changes in interest rates and non-U.S. currency exchange rates in Part II, Item 7A, "Quantitative and Qualitative Disclosures About Market Risk" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019.

Our exposure to market risk primarily consists of foreign currency exchange rate fluctuations related to our international operations and changes in interest rates on debt obligations. We manage such risk primarily by managing the amount, sources, and duration of our debt funding and by using derivative financial instruments. We apply Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 815, *"Derivatives and Hedging,"* when accounting for derivative financial instruments. In all cases, we view derivative financial instruments as a risk management tool and, accordingly, do not use derivatives for trading or speculative purposes.

Exchange Rates

Our foreign operations expose us to fluctuations in foreign exchange rates. These fluctuations may impact the value of our cash receipts and payments in terms of our functional (reporting) currency, which is U.S. dollars. See the discussion of international operations, which is included in Item 2. "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the caption "Items Affecting Comparability—International Operations" and is incorporated by reference herein.

Interest Rates

We manage our interest expense by using a combination of fixed and variable rate debt. Historically, we have entered into interest rate swap agreements to attempt to hedge the variability of future interest payments due to changes in interest rates. As of March 31, 2020, we did not have any outstanding interest rate swap agreements. See discussion of our interest rate swap agreements, which is included in Item 2. "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the caption "Liquidity and Capital Resources—Indebtedness—Interest Rate Swap Agreements" and is incorporated by reference herein.

The estimated fair value of our senior term loans was approximately $708.8 million at March 31, 2020. Based on dealers' quotes, the estimated fair values of our 4.875% senior notes and 5.25% senior notes were $620.4 million and $459.2 million, respectively, at March 31, 2020.

We utilize sensitivity analyses to assess the potential effect on our variable rate debt. If interest rates were to increase 100 basis points on our outstanding variable rate debt at March 31, 2020, the net impact of the additional interest cost would be a decrease of $1.9 million on pre-tax income and an increase of $1.9 million in cash used in operating activities for the three months ended March 31, 2020.

Item 4. Controls and Procedures

Disclosure Controls and Procedures

Rule 13a-15 of the Securities and Exchange Act of 1934, as amended, requires that we conduct an evaluation of the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report, and we have a disclosure policy in furtherance of the same. This evaluation is designed to ensure that all corporate disclosure is complete and accurate in all material respects. The evaluation is further designed to ensure that all information required to be disclosed in our SEC reports is accumulated and communicated to management to allow timely decisions regarding required disclosures and recorded, processed, summarized and reported within the time periods and in the manner specified in the SEC’s rules and forms. Any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. Our Chief Executive Officer and Chief Financial Officer supervise and participate in this evaluation, and they are assisted by our Chief Accounting Officer and other members of our Disclosure Committee. In addition to our Chief Accounting Officer, our Disclosure Committee consists of our General Counsel, our Chief Digital and Technology Officer, our Chief Communication Officer, our Global Controller, our Vice President of Global SOX Assurance, our Senior Officers of significant business lines and other select employees.

We conducted the required evaluation, and our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures (as defined by Securities Exchange Act Rule 13a-15(e)) were not effective as of March 31, 2020 due to the material weaknesses in internal control over financial reporting that was disclosed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019 (2019 Annual Report).

Notwithstanding such material weaknesses in internal control over financial reporting, our management concluded that our consolidated financial statements in this Quarterly Report on Form 10-Q present fairly, in all material respects, the company’s financial position, results of operations and cash flows as of the dates, and for the periods presented, in conformity with U.S. GAAP.

Remediation

As previously described in Part II, Item 9A of our 2019 Annual Report, we began implementing a remediation plan to address the material weaknesses mentioned above. Such weaknesses will not be considered remediated until the applicable controls operate for a sufficient period of time and management has concluded, through testing, that these controls are operating effectively.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting during the fiscal quarter ended March 31, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings

There have been no material changes to our legal proceedings as previously disclosed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019.

Item 1A. Risk Factors

With the exception of the following, there have been no material changes to our risk factors as previously disclosed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019.

Risks Related to Our Operations

The COVID-19 pandemic could have a material adverse effect on our business, results of operations, cash flows and financial condition.

The COVID-19 pandemic has created significant volatility, uncertainty and economic disruption, which has adversely affected our business operations, and may materially and adversely affect our results of operations, cash flows and financial condition. The ongoing COVID-19 pandemic has resulted in a decline in real estate acquisition, disposition, financing, construction and leasing activity, which we have begun to see, and expect to continue to see, adversely impacting deal volume in our property sales and leasing activity in our Advisory Services segment. The continued spread of the COVID-19 pandemic may cause further economic weakness and may result in a general decline in the value of commercial real estate and in rents, which in turn may reduce our revenue from property commissions derived from property leasing, sales, valuation and financing, as well as property management fees and other fees and revenues, equity earnings and gains on asset sales associated with development or investment management activities. It may also result in losses due to our participation in the Government Sponsored Enterprise lending programs, which require us to satisfy certain forbearance and loss sharing/repurchase obligations. Furthermore, our investment management, development services and capital markets (including property sales and mortgage and structured financing services) businesses are sensitive to credit costs and availability, as well as financial liquidity, and dislocations in the capital markets related to the COVID-19 pandemic may adversely impact the performance of these businesses.

We have transitioned a significant subset of our employee population to a remote work environment in an effort to mitigate the spread of COVID-19, which may exacerbate certain risks to our business, including the security and effectiveness of our information and technology networks. Increased reliance on technology and cyber security capabilities to support a global workforce remotely creates additional risks. While we have undertaken measures that we believe to be best practices to safeguard CBRE operations and business continuity, there can be no assurance that these measures will be successful in every instance. In addition, certain of our employees and independent contractors, in particular in our Global Workplace Solutions segment, have been deemed to be “essential workers” and are unable to work remotely. As a result, they may be exposed to COVID-19 in their workplaces. If one of more of our employees, independent contractors, clients or others at our worksites becomes ill from COVID-19 and attributes their exposure to such illness to us or one of our worksites, we could be subject to allegations of failure to adequately mitigate the risk of such exposure. Such allegations could harm our reputation and expose us to the risks of litigation and liability.

The extent to which the COVID-19 pandemic impacts our business, results of operations, cash flows and financial condition will depend on numerous evolving factors that we may not be able to accurately predict, including: the duration and scope of the pandemic; governmental, business and other actions that have been and continue to be taken in response to the pandemic; the impact of the pandemic on economic activity and actions taken in response; the effect on our clients and client demand for our services; the health of and the effect on our workforce and our ability to meet staffing needs, particularly if members of our workforce are quarantined as a result of exposure; the ability of our clients to pay for our services; and any closures of our or our clients' offices and facilities. In addition, if the pandemic continues to create disruptions in the credit or financial markets, or impacts our credit ratings, it could adversely affect our ability to access capital on favorable terms and continue to meet our liquidity needs, all of which are highly uncertain and cannot be predicted. This situation is changing rapidly and additional impacts may arise that we are not aware of currently. To the extent the COVID-19 pandemic adversely affects our business and financial results, it may also have the effect of heightening many of the other risks described in the "Risk Factors" section of our Annual Report on Form 10-K for the year ended December 31, 2019.

A significant portion of our loan origination and servicing business depends upon our relationships with U.S. Government Sponsored Enterprises. As an approved seller/servicer for the Government Sponsored Enterprises, we are required to originate and service loans in accordance with their individual program requirements, including participation in loss sharing and repurchase arrangements. Our obligations under these programs may adversely impact our results of operations, cash flows and financial condition.

A significant portion of our loan origination and servicing business (which we conduct through certain of our wholly-owned subsidiaries) depends upon our relationship with the Federal National Mortgage Association (Fannie Mae), and the Federal Home Loan Mortgage Corporation (Freddie Mac), collectively the Government Sponsored Enterprises, or GSEs. Numerous pieces of legislation seeking various types of changes designed to reform the GSEs and the U.S. housing finance system have been introduced in Congress including among other things, changes to the role the GSEs play in the U.S. housing finance system and the winding down or conservatorship of Fannie Mae and Freddie Mac over a period of years. Legislation which curtails the GSEs activities and/or alters the structure or existence of the GSEs, if enacted, may result in a significant decrease in our loan origination and servicing revenue and could have a significant impact on our loan origination and servicing business.

As an approved seller/servicer for the GSEs, we are required to comply with various eligibility criteria and are required to originate and service loans in accordance with their individual program requirements. Failure to comply with these requirements may result in termination or withdrawal of our approval to sell and service the GSEs loans. On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) was enacted in the United States in response to the COVID-19 pandemic. The CARES Act, among other things, permits borrowers with government-backed mortgages from GSEs who are experiencing a financial hardship to obtain forbearance of their loans. For Fannie Mae loans that we service, we are obligated to advance (for a forbearance period of up to 90 consecutive days and potentially for longer periods) scheduled principal and interest payments to Fannie Mae, regardless of whether the borrowers actually make the payments. These advances are reimbursable by Fannie Mae after 120 days, but require an immediate capital outlay. Further, with respect to Fannie Mae loans, if the loan goes into foreclosure or is restructured, we have an obligation to share in up to one-third of any losses. In connection with the Freddie Mac program, we are not obligated to make any advances, as we are not the master servicer. For the Freddie Mac Small Balance Lending (SBL) program, we could potentially be obligated to repurchase any loan that remains in default for 120 days following the forbearance period, if the default occurred during the first 12 months after origination and such loan had not been earlier securitized. In addition, we may be responsible for a loss not to exceed 10% of the original principal amount of any SBL loan that is not securitized and goes into default after the 12-month repurchase period. We may need to secure additional sources of financing in order to satisfy our forbearance and loss sharing/repurchase obligations under these programs. We cannot make any assurances that such financing would be available on attractive terms, if at all. Our forbearance and loss sharing/ repurchase obligations under these programs may adversely impact our results of operations, cash flows and financial condition.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Open market share repurchase activity during the three months ended March 31, 2020 was as follows (dollars in thousands, except per share amounts):

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares That May Yet Be Purchased Under the Plans or Programs (1)
January 1, 2020 - January 31, 2020	—	$ —	—	
February 1, 2020 - February 29, 2020	—	$ —	—	
March 1, 2020 - March 31, 2020	1,050,084	$ 47.62	1,050,084	
Total	1,050,084	$ 47.62	1,050,084	$ 350,000

(1) During 2019, our board of directors authorized a program for the company to repurchase up to $500.0 million of our Class A common stock over three years, and during 2019 we repurchased $100.0 million of our common stock under this program. The remaining $350.0 million in the table represents the amount available to repurchase shares under the authorized repurchase program as of March 31, 2020.

Our repurchase programs do not obligate us to acquire any specific number of shares. Under these programs, shares may be repurchased in privately negotiated and/or open market transactions, including under plans complying with Rule 10b5-1 under the Exchange Act. The timing of any future repurchases and the actual amounts repurchased will depend on a variety of factors, including the market price of our common stock, general market and economic conditions and other factors.

Item 6. Exhibits

Exhibit No.	Exhibit Description	Incorporated by Reference Form	SEC File No.	Exhibit	Filing Date	Filed Herewith
3.1	Amended and Restated Certificate of Incorporation of CBRE Group, Inc.	8-K	001-32205	3.1	05/23/2018	
3.2	Amended and Restated By-Laws of CBRE Group, Inc.	8-K	001-32205	3.1	03/27/2020	
10.1	Employment and Transition Agreement dated as of April 21, 2020, by and between CBRE, Inc. and James R. Groch +					X
22.1	Subsidiary Guarantors of CBRE Group, Inc.'s Registered Debt.					X
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to §302 of the Sarbanes-Oxley Act of 2002					X
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to §302 of the Sarbanes-Oxley Act of 2002					X
32	Certifications of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002					X
101.INS	Inline XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document)					X
101.SCH	Inline XBRL Taxonomy Extension Schema Document					X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document					X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document					X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document					X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document					X
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)					X

\+ Denotes a management contract or compensatory arrangement

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

CBRE GROUP, INC.

Date: May 7, 2020	/s/ Leah C. Stearns Leah C. Stearns *Chief Financial Officer (Principal Financial Officer)*
Date: May 7, 2020	/s/ Dara A. Bazzano Dara A. Bazzano *Chief Accounting Officer (Principal Accounting Officer)*

Exhibit 10.1

Employment and Transition Agreement

James R. Groch

EMPLOYMENT AND TRANSITION AGREEMENT (this "Agreement"), dated as of April 21, 2020, by and between CBRE, Inc., a Delaware corporation (the "Company") and James R. Groch ("Executive" and, together with the Company, the "Parties").

WHEREAS, the Parties desire to enter into this Agreement to set forth certain terms (a) with respect to Executive's continued employment with the Company and mutually planned separation from the Company as a non-retirement good leaver as of the Separation Date (defined below) and (b) provide for (i) certain payments, rights and benefits that Executive will receive, and (ii) certain restrictive covenants that will apply, both in accordance with the terms and conditions below.

NOW, THEREFORE, in consideration of the promises and the mutual covenants herein contained, the Parties hereby agree as follows:

1. Effective Date; Term. This Agreement shall become effective on the eighth (8th) day following its execution by Executive (such date, the "Effective Date"); provided, that, Executive does not revoke this Agreement in accordance with Section 6(g) below. Subject to earlier termination in accordance with the provisions of Section 4 below, Executive shall be employed by the Company under the terms of this Agreement for the period commencing on the Effective Date and ending on June 30, 2020 (the "Term"). June 30, 2020, the date on which the Term expires, is hereafter referred to as the "Separation Date."

2. Compensation and Benefits. This Section 2 sets forth all of Executive's entitlements with respect to compensation and benefits during the Term.

a. Base Salary. During the Term, Executive will continue to be paid a base salary at the rate of $770,000 per year ("Base Salary"), which Base Salary shall be paid in periodic installments in accordance with the Company's payroll practices.

b. Employee Benefits. During the Term, Executive will remain eligible to participate in all employee benefit plans of the Company in accordance with the terms of such plans as in effect from time to time (the "Employee Benefits").

c. Expense Reimbursement. Executive will continue to be reimbursed for reasonable business expenses in accordance with Company policy as in effect from time to time; provided, that if Executive is placed on garden leave, then any travel, entertainment or other non-ordinary course expenses incurred by Executive after being placed on garden leave must be approved in advance by the Company's Chief Executive Officer (the "CEO").

3. Duties. During the Term, Executive shall continue as Global Group President and Chief Investment Officer with such duties as reasonably determined by the CEO and commensurate with Executive's title and position; provided, that, if so requested by the CEO, Executive shall recuse himself from any meetings (or segments of such meetings) of the Company's board of directors, any committee thereof, or the Company's executive officers in which the BCG strategy report or items of a similar nature are to be discussed; provided, further, that following the initial thirty (30) days of the Term, the Company may, in its sole discretion and subject to Section 4 below, elect to place Executive on garden leave for the remainder of the Term. If Executive is placed on garden leave, the Company may suspend Executive from performing any further services for the Company, and/or following three (3) business days' prior written notice to Executive, exclude Executive from Company premises, electronic mail distribution lists, computer hardware or software, or similar information or resources, but Executive (a) may not (i) undertake any other paid or unpaid work for any other company, entity or person (other than serving on the board of directors or providing other advisory work to companies outside of the real estate industry, including but not limited to WEX, Inc.), or (ii) contact any clients, customers or vendors (unless otherwise agreed by the CEO or any of the Segment CEOs in writing), (b) shall continue to owe all the duties of his employment (whether express or implied) and (c) shall continue to receive all compensation, benefits and vesting as if Executive continued as an active employee, including, but not limited to, payments of Base Salary; continued vesting in all of the Equity Awards (as defined in the Severance Plan (as defined below)) listed in Schedule 1 attached to this Agreement, which is hereby incorporated into this Agreement by reference; continued accrual toward his prorated bonus for 2020 payable under Section 5(d)(ii) of the Severance Plan; and continued participation in the Employee Benefits. Subject to his compliance with this Section 3 if he is placed on garden leave, Executive shall continue to have the use of his Company voicemail and email accounts through the date on which his employment with the Company terminates in accordance with the terms of this Agreement.

4. Termination of Employment, Non-Retirement Good Leaver. Except as otherwise expressly required by law or as specifically provided in this Section 4, all of Executive's rights to salary, severance, equity awards, benefits, bonuses and other amounts hereunder (if any) shall cease upon the termination of Executive's employment hereunder. If Executive's employment with the Company is terminated for any reason, Executive's sole and exclusive remedy with regard to the compensation for services shall be to receive the payments, rights, and benefits described in this Section 4, as applicable, and Executive's rights with respect to the restricted stock units granted to Executive pursuant to each of those three CBRE Group, Inc. 2017 Equity Incentive Plan Restricted Stock Unit Agreements between the Company and Executive each dated as of December 1, 2017 (each as amended by that certain letter agreement by and between Executive and the Company, dated January 4, 2019 (the "January 2019 Letter Agreement"), collectively, the "Special Award Agreements") shall be governed by the terms thereof and this Agreement; provided, that, for the avoidance of doubt, Executive's separation pursuant to Section 4(c), below, shall be deemed to be a termination subject to the non-Retirement good leaver accelerated vesting provisions set forth in the first paragraph of Section 4 of each of the Special Award Agreements, as further provided below, and provided, further, that the certification required by the performance-vesting Special Award Agreements shall be in the form attached hereto as Exhibit B.

a. Death or Disability. Executive's employment hereunder shall terminate upon Executive's death or Executive's Disability (as defined in Section 2(l) of the Change in Control and Severance Plan for Senior Management effective March 24th, 2015 (the "Severance Plan")). Upon the termination of Executive's employment as a result of this Section 4(a), Executive or Executive's estate, as applicable, shall receive (i) (x) in a lump sum cash payment within ten (10) days following such date of termination or on such earlier date as may be required by applicable law (A) any unpaid Base Salary and any unused vacation pay (if any) accrued through such date of termination, and (B) any unreimbursed expenses in accordance with Company policy, and (y) any vested or accrued benefits provided for under the applicable terms of applicable Company employee benefit plans or arrangements in accordance with such terms (clauses (x) and (y), and the applicable terms of payment, but with references to Executive's estate being replaced by references to Executive, if applicable, are hereafter referred to as the "Accrued Amounts"), (ii) accelerated vesting of the restricted stock units that are subject to the Special Award Agreements (subject to the level of performance actually achieved to the extent applicable) in accordance with the non-Retirement good leaver provisions set forth in the first paragraph of Section 4 of each of the Special Award Agreements, which Shares underlying such restricted stock units shall be delivered on the dates set forth on Schedule 1, and (iii) subject to Executive's or Executive's estate, as applicable, executing and not revoking the general release of claims set forth in Exhibit A hereto following the date on which Executive's employment terminates, which release shall be delivered to Executive or Executive's estate, as applicable, within five (5) days following the date of termination and which must be executed (and not revoked) by Executive or Executive's estate, as applicable, within sixty (60) days following the date of termination, the severance payments, rights, and benefits provided for in Section 5.1 of the Severance Plan (i.e., such termination shall be deemed to be a Qualifying Termination under Sections 2(z) and 5.1 of the Severance Plan), including (x) the payments, benefits, Shares (as defined in the CBRE Group, Inc. 2012 Equity Incentive Plan, the CBRE Group, Inc. 2017 Equity Incentive Plan or the CBRE Group, Inc. 2019 Equity Incentive Plan, as applicable), rights, and interests set forth on the attached Schedule 1, including all cash payments, bonuses, benefits, and accelerated vesting of Equity Awards (including the restricted stock units subject to the Special Award Agreements) (collectively, the "Schedule 1 Interests"), to be paid or delivered, as applicable, on the dates and in the amounts or number of Shares (but in the case of performance-vesting Equity Awards for which the performance period has not yet ended, subject to the level of performance actually achieved) set forth on that Schedule 1 (except that for purposes of this Section 4(a) and Section 4(d), the "Separation Date" shall be deemed to be the date of the termination of Executive's employment), (y) COBRA continuation coverage under the Company's group health insurance plan for the 18-month period following the date of Executive's termination of employment, with Executive (or his estate, spouse or eligible dependents, as applicable) continuing to pay the same amount of monthly premium as in effect for an active employee with the same coverage, subject to the terms and conditions of Section 5.1(f) of the Severance Plan, or as otherwise provided in Section 5.1(f) of the Severance Plan (the "Continuation Coverage"), and (z) reasonable outplacement services subject to the terms and conditions of Section 5.1(g) of the Severance Plan ("Outplacement Services"), subject to Section 14.2 of the Severance Plan which is hereby incorporated into and made part of this Agreement.

b. Termination by the Company for Cause. At any time during the Term, the Company may terminate Executive's employment hereunder for Cause (as defined in the Severance Plan); provided, that if the Company has placed Executive on garden leave, then thereafter, "Cause" shall instead mean either a material breach of the Restrictive Covenants (as defined below)) or Executive's conviction of (or plea of guilty or no contest to) a felony involving moral turpitude. Upon the termination of Executive's employment pursuant to this Section 4(b), Executive shall have no further rights to any compensation or any other benefits under this Agreement other than the Accrued Amounts. For avoidance of doubt, any claim that Executive has been terminated for Cause shall be resolved in accordance with the procedures applicable to a Section 16 Participant (as defined in the Severance Plan) under Sections 9.2, 13.1, and 13.2 of the Severance Plan. For avoidance of doubt, the Company shall not be permitted to terminate Executive without Cause (other than a termination due to Disability pursuant to Section 4(a) above) following the Effective Date.

c. Termination upon the Separation Date. Unless earlier terminated in accordance with this Section 4, Executive's employment hereunder shall automatically terminate on the Separation Date and, upon the Separation Date, Executive shall receive the Accrued Amounts, accelerated vesting of the restricted stock units that are subject to the Special Award Agreements (subject to the level of performance actually achieved, to the extent applicable) to the Separation Date in accordance with the non-Retirement good leaver provisions set forth in the first paragraph of Section 4 of each of the Special Award Agreements, which Shares shall be delivered on the dates set forth on Schedule 1, and, subject to Executive executing and not revoking a release of claims in the form attached as Exhibit A following the Separation Date (which release shall be delivered to Executive within five (5) days following the Separation Date and which must be executed (and not revoked) by Executive within sixty (60) days following the Separation Date), the severance payments, rights and benefits provided for in Section 5.1 of the Severance Plan (i.e., such termination shall be deemed to be a Qualifying Termination for purposes of the Severance Plan), including (i) the Schedule 1 Interests, to be paid or delivered on the dates and in the amounts or number of Shares set forth in the attached Schedule 1, (ii) the Continuation Coverage, and (iii) Outplacement Services, subject to Section 14.2 of the Severance Plan which is hereby incorporated into and made part of this Agreement.

d. Settlement Dates for Time-Vesting Equity Awards Subject to Section 5.1(h) of the Severance Plan and the Time-Vesting Special Award Agreement; Net Settlement. Notwithstanding any provision of the Severance Plan to the contrary, if any Time-Vesting Equity Awards (as defined in the Severance Plan) for which vesting is accelerated pursuant to Section 5.1(h) of the Severance Plan (including upon the Separation Date) constitute nonqualified deferred compensation subject to Section 409A of the Internal Revenue Code of 1986, as amended, because Executive is retirement eligible under the terms of the agreements governing such Time-Vesting Equity Awards, then the restricted stock units subject to such Time-Vesting Equity Awards shall be vested as of the Separation Date, but the Shares underlying such restricted stock units shall be delivered to Executive on the date(s) the restricted stock units subject to such Time-Vesting Equity Awards would have otherwise vested, as provided in the grant notice attached to the award agreement pursuant to which the applicable Time-Vesting Equity Awards were granted and not in accordance with the rules governing such delivery that are set forth in clause (A) of Section 5.1(h)(i) of the Severance Plan; provided, that, for the avoidance of doubt, the Shares underlying the restricted stock units subject to the Time-Vesting Equity Award granted to Executive as of March 3, 2020 for which vesting is accelerated pursuant to Section 5.1(h) of the Severance Plan shall be delivered to Executive on the dates set forth in Section 5.1(h) of the Severance Plan. In addition, Shares underlying the restricted stock units subject to the time-vesting Special Award Agreement for which vesting is accelerated to the Separation Date shall be delivered to Executive on December 1, 2023. The Company hereby acknowledges and agrees that any and all applicable federal, state and local income, employment, payroll and other withholding and tax obligations related to the Equity Awards (including the restricted stock units subject to the Special Award Agreements) (beyond those which have already been fulfilled) shall be satisfied by using a net settlement mechanism whereby the Company will withhold a number of Shares that would otherwise be issued to Executive as permitted under the terms of the applicable equity-based plans. Subject to its legal and regulatory obligations, the Company will reasonably cooperate with Executive regarding any tax issues, including (i) seeking a refund or offset for the Company's prior withholding of taxes pre-paid on unvested restricted stock units subject to Equity Awards (including the restricted stock units subject to the Special Award Agreements) that Executive will not receive and (ii) Executive's effort to obtain a refund of certain Philadelphia wage taxes; it being understood by Executive that he remains solely responsible for his own taxes and this sentence in no way implies any tax indemnity to Executive from the Company.

5. Restrictive Covenants. Executive entered into that certain Restrictive Covenants Agreement with the Company dated as of December 1, 2017 (as amended by this Agreement, the "Restrictive Covenants Agreement"), which contains post-termination non-competition and non-solicitation of clients and employees covenants (such covenants, together with Sections 6(h)(i) and (i) of this Agreement, collectively, the "Restrictive Covenants"). The Parties agree that the Restrictive Covenants set forth in the Restrictive Covenants Agreement shall apply to Executive at all times while he is employed by the Company and for a period commencing following the termination of Executive's employment with the Company for any reason other than due to death and ending on June 30, 2021 (subject to the terms and conditions of Section 2.2 of the Restrictive Covenants Agreement) (the "Restricted Period"). Notwithstanding any provision of the Restrictive Covenants Agreement to the contrary, the Parties hereby acknowledge and agree that: (a) Exhibit A of the Restrictive Covenants Agreement is hereby amended to add as Item 18 the following: "Any entity or person that provides products or services that are competitive with products or services provided by the Company Group; provided that nothing herein shall restrict any (i) passive investments in less than one percent (1%) of a broadly held public or private company, or (ii) personal investments in real estate assets (including through passive partnership interests)"; and (b) the non-solicitation of employees covenant set forth in the Restrictive Covenants Agreement shall not apply to (i) any employee of the Company Group in the Corporate Development group based in the Company Group's Philadelphia office if such employee is requested by the Company Group to relocate more than fifty (50) miles therefrom or experiences an involuntary termination of employment with the Company, or (ii) Jennifer Diers, whom the Company also agrees to make available to Executive (for fifty percent (50%) of her time) for so long as she continues to be employed with the Company from the Effective Date through the end of the Restricted Period; provided, that Executive shall, promptly following being invoiced by the Company, reimburse the Company on a monthly basis for fifty percent (50%) of her monthly base salary, employer benefits costs and the employer portion of the associate payroll taxes, for any period of Ms. Diers' continued employment with the Company following the Separation Date through the end of the Restricted Period and Ms. Diers shall not use the Company computers, software, e-mail etc., to provide any support to Executive after the Separation Date; provided, further, that, in the case of clause (i) only, Executive may not hire, engage or solicit for hiring or engaging, any such employee to work for any "Restricted Business" (as such term is defined in the Restrictive Covenants Agreement) or, if such business is a start-up, that Executive intends to become a "Restricted Business" within six months following the date of such solicitation or hiring, as applicable. If Executive wishes to engage in any activity that Executive believes the Company could assert would violate the non-competition

covenant in the Restrictive Covenants Agreement (as modified hereby), then Executive may contact the Company's General Counsel in writing regarding such activity and, after Executive has provided the Company's General Counsel with all material information the General Counsel believes to be reasonably necessary in order to enable the Company to make a determination as to whether the Company would assert that such activity would violate such non-competition covenant, if the Company responds in writing within ten (10) business days following the date that all such information necessary for the Company to make such determination has been provided by Executive that such activity would not violate such covenant or if the Company fails to respond in writing by the expiration of such 10-business day period, then Executive may engage in such activity and the Company will be estopped from asserting that such activity violates such non-competition covenant. In the event that Executive materially breaches any of the Restrictive Covenants and, if such breach is reasonably capable of being cured, does not promptly cure such breach, then, in addition to any other remedies available to the Company in law or in equity, the Company shall have no further obligation to make any additional payments or provide any further benefits hereunder or under the Severance Plan or the Equity Awards (including the Special Award Agreements) (other than the Accrued Amounts, to the extent then unpaid); provided, that, if it is determined by the arbitrator that Executive did not materially breach any of the Restrictive Covenants, the Company shall promptly pay or provide to Executive all amounts and benefits that Executive would have been entitled to receive under the terms of this Agreement, the Severance Plan and the Equity Awards but did not receive due to the application of this sentence. For the avoidance of doubt, Executive is not subject to any restrictive covenants under the Severance Plan (including, but not limited to, Section 7 or Exhibit B thereof) or any other plan, policy, or agreement of or with the Company or its affiliates other than as explicitly set forth in this Section 5.

6. Miscellaneous .

a. Amendments. No provision of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in a writing signed by Executive and either the CEO or the Company's General Counsel.

b. Successors and Assigns.

i. This Agreement is personal to Executive and without the prior written consent of the Company shall not be assignable by Executive otherwise than by will or the laws of descent and distribution. This Agreement shall inure to the benefit of and be enforceable by Executive's legal representatives.

ii. This Agreement shall inure to the benefit of and be binding upon the Company and its successors.

c. Notice. For the purpose of this Agreement, notices and all other communications provided for in this Agreement shall be in writing and shall be deemed to have been duly given if delivered personally, if delivered by overnight courier service, or if mailed by registered mail, or if sent by electronic mail.

If to Executive, to such address as shall most currently appear on the records of the Company.

With a copy to:

Richard J. Rabin
Akin Gump Strauss Hauer & Feld
One Bryant Park, 46th Floor
New York, New York 10036
Email: rrabin@akingump.com

If to the Company, to:
CBRE, Inc.
400 South Hope St., 25th Floor
Los Angeles, California 90071
Attention: General Counsel
Email: Larry.Midler@cbre.com

d. Arbitration. Section 13.2 of the Severance Plan is hereby incorporated into and made part of this Agreement.

e. GOVERNING LAW; JURY TRIAL WAIVER . THIS AGREEMENT WILL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF PENNSYLVANIA, WITHOUT GIVING EFFECT TO ANY CHOICE OF LAW OR CONFLICTING PROVISION OR RULE (WHETHER OF THE STATE OF PENNSYLVANIA OR ANY OTHER JURISDICTION) THAT WOULD CAUSE THE LAWS OF ANY JURISDICTION OTHER THAN THE STATE OF PENNSYLVANIA TO BE APPLIED. EACH PARTY TO THIS AGREEMENT WAIVES ALL RIGHT TO TRIAL BY JURY IN ANY ACTION, PROCEEDING, CLAIM OR COUNTERCLAIM.

f. Entire Agreement. This Agreement (including its Schedule 1 and the Schedule 1 Interests), together with the retirement provision in the January 2019 Letter Agreement, the Restrictive Covenants Agreement; any pension or welfare plan covered by Section 6(g)(ii), below; any agreements, bylaws, policies, or other documents regarding any rights to indemnification Executive may have, as set forth in Section 6(g)(iii), below; the award agreements related to the Equity Awards; the Special Award Agreements; and the specific terms of the Severance Plan cross-referenced herein including Section 8 thereof, constitute the entire agreement between the parties as of the Effective Date and supersede all previous agreements and understandings between the Parties with respect to the subject matter hereof.

g. Release. For and in consideration of the continued employment described in Section 1 and the payments and benefits described in Section 2 and Section 4, Executive hereby agrees on behalf of himself, his agents, assignees, attorneys, successors, assigns, heirs and executors, to, and Executive does hereby, fully and completely forever release the Company and its past, current and future affiliates, predecessors and successors and all of their respective past and/or present officers, directors, partners, members, managing members, managers, employees, agents, representatives, administrators, attorneys, insurers and fiduciaries, in their individual and/or representative capacities (hereinafter collectively referred to as the "Company Releasees"), from any and all causes of action, suits, agreements, promises, damages, disputes, controversies, contentions, differences, judgments, claims, debts, dues, sums of money, accounts, reckonings, bonds, bills, specialties, covenants, contracts, variances, trespasses, extents, executions and demands of any kind whatsoever, which Executive or his agents, assignees, attorneys, successors, assigns, heirs and executors ever had, now have or may have against the Company Releasees or any of them, in law or equity, whether known or unknown to Executive, for, upon, or by reason of, any matter, action, omission, course or thing whatsoever occurring up to the date this Agreement is signed by Executive, arising out of or in connection with or in relationship to Executive's employment or other service relationship with the Company or the termination thereof, and any applicable employment, compensatory or equity arrangement with the Company, any claims of breach of contract, wrongful termination, retaliation, fraud, defamation, infliction of emotional distress or national origin, race, age, sex, sexual orientation, disability, medical condition or other discrimination or harassment, (such released claims are collectively referred to herein as the "Released Claims"); provided, that, Executive does not waive or release (i) any claims with respect to the right to enforce this Agreement (or the agreements or provisions set forth in Section 6(f) of this Agreement), (ii) claims with respect to any vested right Executive may have under any employee pension or welfare benefit plan of the Company, (iii) any rights Executive may have for indemnification from the Company or any of its affiliates or under any insurance policy, and (iv) any claims that may not be waived by law.

Notwithstanding the generality of the immediately preceding paragraph, the Released Claims include, without limitation, all of the following claims occurring up to the date this Agreement is signed by Executive: (A) any and all claims under Title VII of the Civil Rights Act of 1964, the Age Discrimination in Employment Act of 1967 (the "ADEA," a law which prohibits discrimination on the basis of age), the Civil Rights Act of 1971, the Civil Rights Act of 1991, the Fair Labor Standards Act, Employee Retirement Income Security Act of 1974, the Americans with Disabilities Act, the Family and Medical Leave Act of 1993, the National Labor Relations Act, the Equal Pay Act, the Securities Act of 1933, the Securities Exchange Act of 1934, the Rehabilitation Act of 1973, and the Worker Adjustment and Retraining Notification Act, all as amended, and any and all other federal, state or local laws, statutes, rules and regulations pertaining to employment or otherwise, and (B) any claims for wrongful discharge, breach of contract, fraud, misrepresentation or any compensation claims, or any other claims under any statute, rule or regulation or under the common law, including compensatory damages, punitive damages, attorney's fees, costs, expenses and all claims for any other type of damage or relief.

THIS MEANS THAT, BY SIGNING THIS AGREEMENT, EXECUTIVE WILL HAVE WAIVED ANY RIGHT EXECUTIVE MAY HAVE HAD TO BRING A LAWSUIT OR MAKE ANY CLAIM AGAINST THE COMPANY RELEASEES BASED ON ANY ACTS OR OMISSIONS OF THE COMPANY RELEASEES UP TO THE DATE OF THE SIGNING OF THIS AGREEMENT. NOTWITHSTANDING THE ABOVE, NOTHING IN THIS SECTION 6(G) SHALL PREVENT EXECUTIVE FROM (X) INITIATING OR CAUSING TO BE INITIATED ON HIS BEHALF ANY COMPLAINT, CHARGE, CLAIM OR PROCEEDING AGAINST THE COMPANY BEFORE ANY LOCAL, STATE OR FEDERAL AGENCY, COURT OR OTHER BODY CHALLENGING THE VALIDITY OF THE WAIVER OF HIS CLAIMS UNDER ADEA CONTAINED IN THIS SECTION 6(G) (BUT NO OTHER PORTION OF SUCH WAIVER); OR (Y) INITIATING OR PARTICIPATING IN (BUT NOT BENEFITING FROM) AN INVESTIGATION OR PROCEEDING CONDUCTED BY THE EQUAL EMPLOYMENT OPPORTUNITY COMMISSION WITH RESPECT TO ADEA.

Executive represents that he has read carefully and fully understands the terms of this Agreement, and that Executive has been advised to consult with an attorney and has availed himself of the opportunity to consult with an attorney prior to signing this Agreement. Executive acknowledges and agrees that he is executing this Agreement willingly, voluntarily and knowingly, of his own free will, in exchange for the continued employment described in Section 1 and the payments and benefits described in Section 2 and Section 4, and that he has not relied on any representations, promises or agreements of any kind made to him in connection with his decision to accept the terms of this Agreement, other than those set forth in this Agreement. **Executive acknowledges that he could take up to twenty-one (21) days to consider whether he wants to sign this Agreement and that the ADEA gives him the right to revoke the Agreement within seven (7) days after it is signed, and Executive understands that he will not receive any payments or benefits under Section 2 or Section 4 of this Agreement (other than payment of Accrued Amounts), subject to the terms and conditions hereof, until such seven (7) day revocation period has passed and then, only if he has not revoked the Agreement. To the extent Executive has executed the Agreement within less than twenty-one (21) days after its delivery to him, Executive hereby waives the twenty-one (21) day period and acknowledges that his decision to execute the Agreement prior to the expiration of such twenty-one (21) day period was entirely voluntary. If Executive revokes this Agreement, it shall be null and void**.

h. Mutual Non-Disparagement; Communications. Following the date of this Agreement (and continuing following the termination of Executive's employment hereunder):

(i) Executive hereby agrees not to defame or disparage any member of the Company Group or any executive, manager, director, or officer of any member of the Company Group in any medium to any person.

(ii) The Company hereby agrees that neither the Company nor the executive officers of the Company Group shall defame or disparage Executive in any medium to any person.

Notwithstanding the preceding, Executive, the Company and the executive officers of the Company Group may confer in confidence with their respective legal representatives and make truthful statements as required by law or legal process.

Promptly following the execution of this Agreement, Executive and the CEO shall confer regarding the timing and content of any corporate communication regarding Executive's departure from the Company. Executive will be provided with a reasonable opportunity to comment on any such communication before it is released, and the Company shall consider in good faith any such comments Executive may provide.

From the Separation Date through June 30, 2021, the Company shall maintain an automatic reply on Executive's Company email account stating that as of June 30, 2020, Executive is no longer employed by the Company, and that for personal matters, he can be contacted at Executive's personal email address (to be provided to the Company by Executive).

i. Continuing Obligation Not to Use Any Confidential Information; and Return of All Confidential Information and Other Company Property.

(i) Executive acknowledges and agrees that all confidential, proprietary, trade secret and other business information belonging to the Company Group, whether in tangible form or otherwise, including all documents and records, whether printed, typed, handwritten, videotaped, transmitted or transcribed on data files or on any other type of media, and whether or not labeled or identified as confidential and/or proprietary, made or compiled by Executive or made available to Executive during his employment with the Company, is and remains the sole property of the Company Group which Executive shall not knowingly at any time use or disclose to any third party.

(ii) Executive agrees that Executive has an obligation to and, no later than ten (10) business days following the earlier of the date on which his employment terminates or the date on which he is placed on garden leave, shall warrant in writing that he has made a reasonable search for, and returned, all originals and all copies of all documents and records made or compiled by Executive and/or made available to Executive or provided to Executive during the period of Executive's employment with the Company that he is aware of that contain confidential, proprietary, trade secret or other business information belonging to the Company Group, whether printed, typed, handwritten, videotaped, transmitted or transcribed on data files or on any other type of media and whether or not labeled or identified as confidential, proprietary or trade secret. No later than ten (10) business days following the earlier of the date on which his employment terminates or the date on which he is placed on garden leave, Executive shall also warrant in writing that Executive has previously destroyed any such documents or information that he is aware of and has not retained any copies of any such documents or information in any format for Executive's own personal use or any other purposes for Executive's own benefit or the benefit of any third party.

(iii) In addition to returning all originals and copies (in whatever format) of all confidential, proprietary, trade secret or other business information belonging to the Company Group that Executive is aware of, Executive agrees that Executive has an obligation to, no later than ten (10) business days following the earlier of the date on which his employment terminates or the date on which he is placed on garden leave, return all other Company-owned property and materials that he is aware of, including, but not limited to, credit cards, calling cards, keys, key fobs, identification badges, files, records, product samples, marketing materials, computer disks, tablets, printers, personal digital assistants, pagers, cellular telephones and all associated accessories for technology (e.g. power cords, mouse, etc.) and shall warrant in writing at the end of such ten-business day period that he has returned all such items. The warranties set forth in this Section 6(i) shall be in the form attached hereto as Exhibit C which, together with Exhibit B, shall be the only warranties Executive shall be required to execute in connection with this Agreement or the agreements, plans, or policies referenced in Section 6(f). If the Company believes Executive has failed to return any property, documents, or other materials as required by this Section 6(i), it shall provide Executive with written notice of such alleged failure and provide Executive with five (5) business days to cure.

(iv) To the extent that after signing this Agreement and providing the written warranties required by this Section 6(i), Executive becomes aware that he has access to any confidential, proprietary, trade secret or other business information belonging to the Company Group, including on any personal computer equipment or other personal electronic storage devices, or is aware or becomes aware that he has uploaded or downloaded such information to any cloud or other file sharing service to which Executive has access (including but not limited to Dropbox or Dropbox Free), Executive shall (A) make prompt reasonable steps to delete such information, and (B) not review or use such information for any purpose.

(v) Nothing in this Agreement shall prohibit or impede Executive from communicating, cooperating or filing a complaint with any U.S. federal, state or local governmental or law enforcement branch, agency or entity (collectively, a "Governmental Entity") with respect to possible violations of any U.S. federal, state or local law or regulation, or otherwise making disclosures to any Governmental Entity, in each case, that are protected under the whistleblower provisions of any such law or regulation; provided, that in each case such communications and disclosures are consistent with applicable law. Executive does not need the prior authorization of (or to give notice to) the Company regarding any such communication or disclosure. Executive understands and acknowledges that an individual shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that is made (A) in confidence to a Federal, State, or local government official or to an attorney solely for the purpose of reporting or investigating a suspected violation of the law; or (B) in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. Executive understands and acknowledges further that an individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the attorney of the individual and use the trade secret information in the court proceeding, if the individual files any document containing the trade secret under seal; and does not disclose the trade secret, except pursuant to court order. Notwithstanding the foregoing, under no circumstance is Executive authorized to disclose any information covered by the Company's attorney-client privilege or attorney work product without the prior written consent of the Company's General Counsel.

j. Cooperation. Executive shall cooperate with the Company in any internal investigation or administrative, regulatory or judicial proceeding, or to provide information to the Company for any project or assignment in which he was involved during his employment, as reasonably requested by the Company (including, without limitation, Executive being available to the Company upon reasonable notice and at mutually-acceptable times and locations) for interviews and factual investigations, providing testimony without requiring service of a subpoena or other legal process, volunteering to the Company all pertinent information that he recalls, and turning over to the Company all relevant documents which are requested by the Company and which may come into Executive's possession, all at times and on schedules that are reasonably consistent with Executive's other permitted activities and commitments). Such services will be without additional compensation to Executive, but the Company will reimburse Executive for any reasonable travel and out-of-pocket costs and expenses (including, without limitation, attorneys' fees and expenses in accordance with the Company's charter and by-laws and directors and officers insurance policy) incurred by Executive in providing such cooperation. To the extent consistent with applicable law, Executive will provide the Company advance written notice of any subpoena or legal proceeding and perform all acts reasonably and commercially practicable, at the Company's expense, to assist the Company to obtain a protective order to the extent the Company seeks such protection. Furthermore, if such a protective order or other remedy is not obtained, or the Company waives compliance with the provision of this Section 6(j), Executive will furnish only such information or take only such action which his lawyers advise him is legally advisable and will exercise reasonable commercial efforts to obtain reliable assurance that confidential treatment will be accorded any information so furnished. For avoidance of doubt, nothing in this Section 6(j) shall require Executive to cooperate with the Company in any dispute that arises under this Agreement or on any other any matter in which the Company's and Executive's interests are adverse.

k. Withholding Taxes. The Company shall be entitled to withhold from any payment due to Executive hereunder any amounts required to be withheld by applicable tax laws or regulations.

l. Survival. Sections 4, 5 and 6 shall survive and continue in full force in accordance with their terms notwithstanding any termination of Executive's employment with the Company.

m. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together will constitute one and the same instrument.

[*Signature page follows.*]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

CBRE, Inc.

By: /s/ LH Midler
Name: Laurence H. Midler
Title: Executive Vice President and General Counsel

Executive

/s/ James Groch
James R. Groch

[Signature page to Employment and Transition Agreement]

Exhibit A

General Release

For and in consideration of the payments and benefits described in Section 4 of the Employment and Transition Agreement (the "Agreement") dated as of April 21, 2020, by and between CBRE, Inc., a Delaware corporation (the "Company") and James R. Groch "(Executive"), Executive hereby agrees on behalf of himself, his agents, assignees, attorneys, successors, assigns, heirs and executors, to, and Executive does hereby, fully and completely forever release the Company Releasees, from any and all causes of action, suits, agreements, promises, damages, disputes, controversies, contentions, differences, judgments, claims, debts, dues, sums of money, accounts, reckonings, bonds, bills, specialties, covenants, contracts, variances, trespasses, extents, executions and demands of any kind whatsoever, which Executive or his agents, assignees, attorneys, successors, assigns, heirs and executors ever had, now have or may have against the Company Releasees or any of them, in law or equity, whether known or unknown to Executive, for, upon, or by reason of, any matter, action, omission, course or thing whatsoever occurring up to the date this release is signed by Executive, arising out of or in connection with or in relationship to Executive's employment or other service relationship with the Company or the termination thereof, and any applicable employment, compensatory or equity arrangement with the Company, any claims of breach of contract, wrongful termination, retaliation, fraud, defamation, infliction of emotional distress or national origin, race, age, sex, sexual orientation, disability, medical condition or other discrimination or harassment, (such released claims are collectively referred to herein as the "Released Claims"); provided, that, Executive does not waive or release (i) any claims with respect to the right to enforce the Agreement (or the agreements or provisions set forth in Section 6(f) of the Agreement), (ii) claims with respect to any vested right Executive may have under any employee pension or welfare benefit plan of the Company, (iii) any rights Executive may have for indemnification from the Company or any of its affiliates or under any insurance policy, and (iv) any claims that may not be waived by law.

Notwithstanding the generality of the immediately preceding paragraph, the Released Claims include, without limitation, all of the following claims occurring up to the date this release is signed by Executive: (A) any and all claims under Title VII of the Civil Rights Act of 1964, the Age Discrimination in Employment Act of 1967 (the "ADEA," a law which prohibits discrimination on the basis of age), the Civil Rights Act of 1971, the Civil Rights Act of 1991, the Fair Labor Standards Act, Employee Retirement Income Security Act of 1974, the Americans with Disabilities Act, the Family and Medical Leave Act of 1993, the National Labor Relations Act, the Equal Pay Act, the Securities Act of 1933, the Securities Exchange Act of 1934, the Rehabilitation Act of 1973, and the Worker Adjustment and Retraining Notification Act, all as amended, and any and all other federal, state or local laws, statutes, rules and regulations pertaining to employment or otherwise, and (B) any claims for wrongful discharge, breach of contract, fraud, misrepresentation or any compensation claims, or any other claims under any statute, rule or regulation or under the common law, including compensatory damages, punitive damages, attorney's fees, costs, expenses and all claims for any other type of damage or relief.

THIS MEANS THAT, BY SIGNING THIS RELEASE, EXECUTIVE WILL HAVE WAIVED ANY RIGHT EXECUTIVE MAY HAVE HAD TO BRING A LAWSUIT OR MAKE ANY CLAIM AGAINST THE COMPANY RELEASEES BASED ON ANY ACTS OR OMISSIONS OF THE COMPANY RELEASEES UP TO THE DATE OF THE SIGNING OF THIS RELEASE. NOTWITHSTANDING THE ABOVE, NOTHING IN THIS RELEASE SHALL PREVENT EXECUTIVE FROM (X) INITIATING OR CAUSING TO BE INITIATED ON HIS BEHALF ANY COMPLAINT, CHARGE, CLAIM OR PROCEEDING AGAINST THE COMPANY BEFORE ANY LOCAL, STATE OR FEDERAL AGENCY, COURT OR OTHER BODY CHALLENGING THE VALIDITY OF THE WAIVER OF HIS CLAIMS UNDER ADEA CONTAINED IN THIS RELEASE (BUT NO OTHER PORTION OF SUCH WAIVER); OR (Y) INITIATING OR PARTICIPATING IN (BUT NOT BENEFITING FROM) AN INVESTIGATION OR PROCEEDING CONDUCTED BY THE EQUAL EMPLOYMENT OPPORTUNITY COMMISSION WITH RESPECT TO ADEA.

Executive represents that he has read carefully and fully understands the terms of this release, and that Executive has been advised to consult with an attorney and has availed himself of the opportunity to consult with an attorney prior to signing this release. Executive acknowledges and agrees that he is executing this release willingly, voluntarily and knowingly, of his own free will, in exchange for the payments and benefits described in Section 4 of the Agreement, and that he has not relied on any representations, promises or agreements of any kind made to him in connection with his decision to accept the terms of the Agreement and this release, other than those set forth in the Agreement and this release. **Executive acknowledges that he could take up to twenty-one (21) days to consider whether he wants to sign this release and that the ADEA gives him the right to revoke this release within seven (7) days after it is signed, and Executive understands that he will not receive any payments or benefits under Section 4 of the Agreement (other than payment of Accrued Amounts), subject to the terms and conditions thereof, until such seven (7) day revocation period has passed and then, only if he has not revoked this release. To the extent Executive has executed this release within less than twenty-one (21) days after its delivery to him, Executive hereby waives the twenty-one (21) day period and acknowledges that his decision to execute this release prior to the expiration of such twenty-one (21) day period was entirely voluntary. If Executive revokes this release, it and the Agreement shall be null and void as of the date of such revocation**.

Capitalized terms used in this release but not defined herein shall have the meanings ascribed to such terms in the Agreement.

Executive

____
James R. Groch

Exhibit B

Form of Certification

Attn: Compensation Department
c/o CBRE, Inc.
2100 Ross Avenue, Suite 1600
Dallas, TX 75201

Re: Certification of Compliance with Restrictive Covenants

All capitalized terms used but not defined herein shall have the meanings ascribed to them in the Employment and Transition Agreement by and between CBRE, Inc. and me, dated as of April 21, 2020 (the "Transition Agreement").

In accordance with Section 4 of the performance-vesting Special Award Agreements, I certify that I continually complied with the restrictive covenants set forth in the Restrictive Covenants Agreement (as modified in the Transition Agreement) through the Restricted Period.

____
James R. Groch

Date: ___________________

Exhibit C

Return of Confidential Information and Property

I warrant that I have (a) made a reasonable search for, and returned, all originals and all copies of all documents and records made or compiled by me and/or made available to me or provided to me during the period of my employment with the Company that I am aware of that contain confidential, proprietary, trade secret or other business information belonging to the Company Group, whether printed, typed, handwritten, videotaped, transmitted or transcribed on data files or on any other type of media and whether or not labeled or identified as confidential, proprietary or trade secret, and (b) previously destroyed any such documents or information that I am aware of and have not retained any copies of any such documents or information in any format for my own personal use or any other purposes for my own benefit or the benefit of any third party.

In addition to returning all originals and copies (in whatever format) of all confidential, proprietary, trade secret or other business information belonging to the Company Group that I am aware of, I warrant that I have returned all other Company-owned property and materials that I am aware of, including, but not limited to, credit cards, calling cards, keys, key fobs, identification badges, files, records, product samples, marketing materials, computer disks, tablets, printers, personal digital assistants, pagers, cellular telephones and all associated accessories for technology (e.g. power cords, mouse, etc.).

____
James R. Groch

Date: ____________________

Schedule 1

James R. Groch
Separation Package

Schedule 1 Interests		
Summary Upon Termination Date		
	Category	**Payout ($s & Shares)**
Cash payment	Target cash compensation (base + target bonus) x 1.5	$2,887,500
Bonus	Prorated 2020 Bonus	$575,918
Cash	**Total Payout in Cash delivered at Termination Date**	**$3,463,418**
Shares	**Total Number of Shares delivered at Termination Date (50% of 2018 Performance Award and 50% of 2020 Time Award)***	**28,059**
Summary of Shares Delivered After Separation Date		
Delivery Date	**Equity Grants**	**Shares***
8/11/2020	2016 Time	12,031
2/16/2021	2018 Time	9,874
2/28/2021	2019 Time	5,734
2/28/2021	2019 Performance**	9,498
3/3/2021	2017 Time	9,865
12/31/2021	2018 Performance (50%)*	22,123
12/31/2021	2019 Performance**	9,499
12/31/2021	2020 Time (50%)*	5,936
2/16/2022	2018 Time	9,875
2/28/2022	2019 Time	5,735
2/28/2023	2019 Time	5,734
3/3/2023	2020 Performance**	15,836
12/1/2023	Special Time*	18,005
12/1/2023	Special TSR**	18,269
12/31/2023	Special EPS**	18,015
	Total Number of Shares delivered after Termination Date * and **	**176,029**

Total Number of Shares * and **	**204,088**

*Does not account for Shares that will be withheld to cover employment and income taxes
** For awards where the performance period has not yet ended, the number of Shares noted reflects the target number originally granted, assuming target performance; however, Executive will remain eligible to receive the maximum number of Shares that are subject to the award and the number of Shares ultimately delivered may be more or less than target depending on the performance achievement factor. Once certified, the performance achievement factor will be applied to calculate the number of Shares due. Delivery date shown is the approximate delivery date. Shares subject to performance will be delivered as soon as practicable after the compensation committee of the board certifies the performance (but in no event later than 30 days thereafter).
*** In the event of a stock split or other event described in Section 13(a) of the CBRE Group, Inc. 2012 Equity Incentive Plan, Section 13(a) of the CBRE Group, Inc. 2017 Equity Incentive Plan or Section 12(a) of the CBRE Group, Inc. 2019 Equity Incentive Plan, as applicable, Executive's Shares shall be treated no less favorably than those of other Company executives holding Shares.

EXHIBIT 22.1

SUBSIDIARY GUARANTORS OF CBRE GROUP, INC.'S

REGISTERED DEBT

At March 31, 2020

The following is a list of the subsidiaries of CBRE Group, Inc. (the "Company") that were issuers, co-issuers or guarantors of securities registered under the Securities Act of 1933, as amended, for which the Company was an issuer, co-issuer or guarantor as of March 31, 2020. CBRE Services, Inc. is the issuer of the 4.875% senior notes (as defined the Company's Quarterly Report on Form 10-Q for the three months ended March 31, 2020 (the "Quarterly Report")) and the 5.25% senior notes (as defined in the Quarterly Report), each of which is guaranteed by the Company on a joint and several basis. Each subsidiary listed below jointly and severally guarantees the 5.25% senior notes and the 4.875% senior notes:

CBRE, Inc.
CBRE Global Investors, Inc.
CBRE Global Investors, LLC
CB/TCC Global Holdings Limited
CBRE Capital Markets of Texas, LP
CBRE Capital Markets, Inc.
CBRE Clarion CRA Holdings, Inc.
CBRE Clarion REI Holding, Inc.
CBRE Government Services, LLC
CBRE/LJM – Nevada, Inc.
CBRE Partner, Inc.
CBRE Technical Services, LLC
CB/TCC, LLC
Trammell Crow Company, LLC
CBRE GWS LLC
CBRE Business Lending, Inc.
CBRE Consulting, Inc.
CBRE/LJM Mortgage Company, L.L.C.
Insignia/ESG Capital Corporation
Trammell Crow Development & Investment, Inc.
CBRE Holdings, LLC

EXHIBIT 31.1

Certification of Chief Executive Officer Pursuant to
Rule 13a-14(a) Under the Securities Exchange Act of 1934, as Amended

I, Robert E. Sulentic, certify that:

1) I have reviewed this quarterly report on Form 10-Q of CBRE Group, Inc.;

2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3) Based on my knowledge, the financial statements and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 7, 2020

/s/ Robert E. Sulentic

Robert E. Sulentic
President and Chief Executive Officer

EXHIBIT 31.2

Certification of Chief Financial Officer Pursuant to
Rule 13a-14(a) Under the Securities Exchange Act of 1934, as Amended

I, Leah C. Stearns, certify that:

1) I have reviewed this quarterly report on Form 10-Q of CBRE Group, Inc.;

2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3) Based on my knowledge, the financial statements and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 7, 2020

/s/ Leah C. Stearns

Leah C. Stearns
Chief Financial Officer

EXHIBIT 32

Certifications of Chief Executive Officer and Chief Financial Officer
Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act Of 2002

The undersigned, Robert E. Sulentic, Chief Executive Officer, and Leah C. Stearns, Chief Financial Officer of CBRE Group, Inc. (the “Company”), hereby certify as of the date hereof, solely for the purposes of 18 U.S.C. §1350, that:

(i) the Quarterly Report on Form 10-Q for the period ended March 31, 2020, of the Company (the “Report”) fully complies with the requirements of Section 13(a) and 15(d), as applicable, of the Securities Exchange Act of 1934; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company at the dates and for the periods indicated.

Date: May 7, 2020

/s/ Robert E. Sulentic
Robert E. Sulentic
President and Chief Executive Officer

/s/ Leah C. Stearns
Leah C. Stearns
Chief Financial Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.