20240708 14299

Årsredovisning

för

CBRE GWS Sweden AB

556991-2628

Räkenskapsåret

2023

Fastställelseintyg

Undertecknad styrelseledamot i CBRE GWS Sweden AB intygar att resultaträkningen och balansräkningen i årsredovisningen har fastställts på årsstämma 2024-06-28. Årsstämman beslutade att godkänna styrelsens förslag till resultatdisposition.

Jag intygar också att innehållet i årsredovisningen och revisionsberättelsen stämmer överens med originalen.

Stockholm 2024-06-28

Mattias Wennberg

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Räkenskapsåret

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Styrelsen för CBRE GWS Sweden AB har upprättat följande årsredovisning för räkenskapsåret 2023.

Årsredovisningen är upprättad i svenska kronor, SEK. Om inte annat särskilt anges, redovisas alla belopp i hela kronor (kr). Uppgifter inom parentes avser föregående år.

Förvaltningsberättelse

Information om verksamheten

CBRE GWS är en leverantör av integrerade lösningar inom fastighetsförvaltning och fastighetstjänster. CBRE hjälper globala och lokala företag att fokusera på kärnverksamheten och skapa säkra och effektiva arbetsplatser för sina anställda.

Bolaget har sitt säte i Stockholm och är ett helägt dotterbolag till holländska bolaget Relam Amsterdam Holdings B.V. orgnr - 801823869 med säte i Prinse Berhardplein 200, 1097JB Amsterdam, Nederländskt bolag som ingår i en koncern där CBRE Group, Inc. orgnr 0777218 beläget i 2100 McKinney Avenue, Suite 1250, Dallas, TX 75201, USA är det slutliga moderbolaget.

Väsentliga händelser under räkenskapsåret

I februari 2023 förvärvades H2M Sverige AB med fyra dotterbolag. H2M är ett ledande företag inom tekniskt underhåll och fastighetsförvaltning. Bolaget arbetar inom flera olika sektorer, såsom (men ej avgränsat till) transport, offentlig verksamhet, kontor, köpcentra, logistik, sjukvård och bostäder. H2M grundades 2003 och har 195 anställda runt om i Stockholm, Mälardalen och Östergötland.

Både CBRE och H2M har företagskulturer med liknande värderingar som är avgörande för företagens framgång. Bolagen kompletterar varandra i tjänsteutbud och tillsammans kan de erbjuda ett bredare utbud av tjänster till dess kunder.

I december 2023 genomfördes en omstrukturering genom ett internt förvärv där CBRE GWS Sweden AB förvärvade samtliga aktier i H2M Fastighetsteknik AB från H2M Sverige AB.

Förväntad framtida utveckling samt väsentliga risker och osäkerhetsfaktorer

Bolaget förväntar sig en omsättningstillväxt och rörelsevinst under 2024.
Bolagets marknad är fortfarande under tillväxt. Osäkerhetsfaktorerna som kan föreligga gäller i första hand förmågan att bibehålla befintliga kunder och förnyelse av avtal.

Hållbarhet

CBRE är engagerad i att förstå miljöpåverkan från affärsverksamheten och aktivt söka vägar till att mäta och mildra dessa effekter.

I enlighet med ÅRL 6 kap. 10 § andra stycket så upprättar Bolaget ingen hållbarhetsrapport då de omfattas av koncernens. Denna hållbarhetsrapport upprättas av CBRE Group Inc. (organisationsnummer 3358676) och finns tillgänglig via koncernens hemsida:
https://www.cbre.com/about-us/corporate-responsibility/report-2023

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Flerårsöversikt (Tkr)	**2023**	**2022**	**2021**	**2020**	**2019**
Nettoomsättning	678 806	628 108	602 741	507 122	416 567
Resultat efter finansiella poster	5 842	5 559	5 954	9 375	5 561
Eget kapital	199 249	68 794	64 541	59 903	52 607
Balansomslutning	497 199	260 154	233 770	245 682	168 656
Antal anställda	273	262	252	237	224
Soliditet (%)	41	26	28	24	31
Avkastning på eget kap. (%)	3	6	7	12	8

För definitioner av nyckeltal, se Redovisnings- och värderingsprinciper.

Förändringar i eget kapital

	Aktie-kapital	**Balanserat resultat**	**Årets resultat**	**Totalt**
Belopp vid årets ingång	50 000	64 490 817	4 253 248	**68 794 065**
Disposition enligt beslut av årsstämman:				
Balanseras i ny räkning		4 253 248	-4 253 248	**0**
Erhållna aktieägartillskott		125 000 000		**125 000 000**
Årets resultat			5 455 370	**5 455 370**
Belopp vid årets utgång	**50 000**	**193 744 065**	**5 455 370**	**199 249 435**

Ovillkorlig återbetalningsskyldighet för aktieägartillskott uppgick till 30,2 (30,2) Mkr.

Förslag till vinstdisposition

Styrelsen föreslår att till förfogande stående vinstmedel (kronor):

balanserad vinst	193 744 065
årets vinst	5 455 370
	199 199 435
disponeras så att	
i ny räkning överföres	199 199 435
	199 199 435

Företagets resultat och ställning i övrigt framgår av efterföljande resultat- och balansräkning samt kassaflödesanalys med noter.

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Resultaträkning

	Not	2023-01-01 -2023-12-31	2022-01-01 -2022-12-31
Rörelsens intäkter			
Nettoomsättning	2	678 806 323	628 108 485
		678 806 323	**628 108 485**
Rörelsens kostnader			
Övriga externa kostnader	3, 4	-427 475 088	-386 496 500
Personalkostnader	5	-244 852 165	-235 548 245
Avskrivningar och nedskrivningar av materiella och immateriella anläggningstillgångar	10	-213 550	-3 449
Övriga rörelsekostnader		-44 523	-157 584
		-672 585 326	**-622 205 778**
Rörelseresultat	6	**6 220 997**	**5 902 707**
Resultat från finansiella poster			
Resultat från andelar i koncernföretag	7	0	0
Räntekostnader och liknande resultatposter	8	-378 767	-343 824
		-378 767	**-343 824**
Resultat efter finansiella poster		**5 842 230**	**5 558 883**
Resultat före skatt		**5 842 230**	**5 558 883**
Skatt på årets resultat	9	-386 860	-1 305 635
Årets resultat		**5 455 370**	**4 253 248**

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Balansräkning

	Not	2023-12-31	2022-12-31
TILLGÅNGAR			
Anläggningstillgångar			
Materiella anläggningstillgångar			
Inventarier, verktyg och installationer	10	847 579	203 504
		847 579	**203 504**
Finansiella anläggningstillgångar			
Andelar i koncernföretag	11, 12	122 888 341	0
		122 888 341	**0**
Summa anläggningstillgångar		**123 735 920**	**203 504**
Omsättningstillgångar			
Kortfristiga fordringar			
Kundfordringar		247 906 144	129 776 463
Fordran mot beställare		46 881 960	64 801 205
Fordringar hos koncernföretag		4 025 569	12 849 976
Aktuella skattefordringar		5 095 388	7 455 796
Övriga fordringar		6 536 223	4 172 452
Förutbetalda kostnader och upplupna intäkter	13	13 225 299	17 245 455
		323 670 583	**236 301 347**
Kassa och bank		49 792 482	23 649 250
Summa omsättningstillgångar		**373 463 065**	**259 950 597**
SUMMA TILLGÅNGAR		**497 198 985**	**260 154 101**

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Balansräkning

	Not	2023-12-31	2022-12-31
EGET KAPITAL OCH SKULDER			
Eget kapital	14, 18		
Bundet eget kapital			
Aktiekapital		50 000	50 000
		50 000	**50 000**
Fritt eget kapital			
Balanserad vinst eller förlust		193 744 065	64 490 817
Årets resultat		5 455 370	4 253 248
		199 199 435	**68 744 065**
Summa eget kapital		**199 249 435**	**68 794 065**
Kortfristiga skulder			
Skulder till kreditinstitut		66 927 754	45 954 494
Leverantörsskulder		52 226 484	25 034 607
Skulder till koncernföretag		24 634 624	9 311 225
Övriga skulder		51 601 178	6 594 754
Upplupna kostnader och förutbetalda intäkter	15	102 559 510	104 464 956
Summa kortfristiga skulder		**297 949 550**	**191 360 036**
SUMMA EGET KAPITAL OCH SKULDER		**497 198 985**	**260 154 101**

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Kassaflödesanalys

	Not	2023-01-01 -2023-12-31	2022-01-01 -2022-12-31
Den löpande verksamheten			
Resultat före finansiella poster		6 220 997	5 902 707
Erlagd ränta		-378 767	-343 824
Betald skatt		1 973 548	-3 667 669
Avskrivningar		213 550	3 449
Kassaflöde från den löpande verksamheten före förändring av rörelsekapital		**8 029 328**	**1 894 663**
Kassaflöde från förändring av rörelsekapitalet			
Förändring av kundfordringar		-118 129 680	32 239 026
Förändring av kortfristiga fordringar		28 400 037	-51 914 007
Förändring av leverantörsskulder		27 191 877	9 399 875
Förändring av kortfristiga skulder		6 211 376	-27 682 153
Kassaflöde från den löpande verksamheten		**-48 297 062**	**-36 062 596**
Investeringsverksamheten			
Investeringar i materiella anläggningstillgångar		-857 625	0
Förvärv av koncernföretag		-70 675 341	0
Kassaflöde från investeringsverksamheten		**-71 532 966**	**0**
Finansieringsverksamheten			
Upptagna lån		572 085 002	454 209 752
Amortering av lån		-551 111 742	-414 003 847
Erhållna aktieägartillskott		125 000 000	0
Kassaflöde från finansieringsverksamheten		**145 973 260**	**40 205 905**
Årets kassaflöde		**26 143 232**	**4 143 309**
Likvida medel vid årets början			
Likvida medel vid årets början		23 649 250	19 505 941
Likvida medel vid årets slut		**49 792 482**	**23 649 250**

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Noter

Not 1 Redovisnings- och värderingsprinciper

Allmänna upplysningar
CBRE GWS Sweden ABs årsredovisning har upprättats enligt årsredovisningslagen och Bokföringsnämndens allmänna råd BFNAR 2012:1 Årsredovisning och koncernredovisning (K3).

Redovisningsprinciperna är oförändrade jämfört med föregående år.

Intäktsredovisning
Intäkter innefattar värdet av sålda varor och tjänster exklusive mervärdesskatt och rabatter. Försäljning av tjänster intäktsredovisas i den redovisningsperiod då de utförs genom successiv vinstavräkning baserad på utförda tjänster per balansdagen i proportion till de totala tjänster som skall utföras.

Finansiella instrument
Finansiella instrument värderas utifrån anskaffningsvärdet. Instrumentet redovisas i balansräkningen när bolaget blir part i instrumentets avtalsmässiga villkor. Finansiella tillgångar tas bort från balansräkningen när rätten att erhålla kassaflöden från instrumentet har löpt ut eller överförts och bolaget har överfört i stort sett alla risker och förmåner som är förknippade med äganderätten. Finansiella skulder tas bort från balansräkningen när förpliktelserna har reglerats eller på annat sätt upphört.

Andelar i dotterföretag
Andelar i dotterföretag redovisas till anskaffningsvärde efter avdrag för eventuella nedskrivningar. I anskaffningsvärdet ingår köpeskillingen som erlagts för aktierna samt förvärvskostnader. Eventuella kapitaltillskott läggs till anskaffningsvärdet när de uppkommer.

Fordringar
Fordringar har efter individuell värdering upptagits till belopp varmed de beräknas inflyta.

Fordringar och skulder i utländsk valuta
Fordringar och skulder i utländsk valuta har omräknats till balansdagens kurs. Kursdifferenser på rörelsefordringar och skulder ingår i rörelseresultatet.

Låneskulder och leverantörsskulder
Låneskulder redovisas initialt till anskaffningsvärde efter avdrag för transaktionskostnader. Skiljer sig det redovisade beloppet från det belopp som ska återbetalas vid förfallotidpunkten periodiseras mellanskillnaden som räntekostnad över lånets löptid med hjälp av instrumentets effektivränta. Härigenom överensstämmer vid förfallotidpunkten det redovisade beloppet och det belopp som ska återbetalas.

Kortfristiga leverantörsskulder redovisas till anskaffningsvärde.

Kvittning av finansiell fordran och finansiell skuld
En finansiell tillgång och en finansiell skuld kvittas och redovisas med ett nettobelopp i balansräkningen endast då legal kvittningsrätt föreligger samt då en reglering med ett nettobelopp avses ske eller då en samtida avyttring av tillgången och reglering av skulden avses ske.

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Inkomstskatter

Redovisade inkomstskatter innefattar skatt som skall betalas eller erhållas avseende aktuellt år, justeringar avseende tidigare års aktuella skatt.

Skatteskulder/fordringar värderas till vad som enligt företagets bedömning skall erläggas till eller erhållas från Skatteverket. Bedömningen görs enligt de skatteregler och skattesatser som är beslutade eller som är aviserade och med stor säkerhet kommer att fastställas.

För poster som redovisas i resultaträkningen, redovisas även därmed sammanhängande skatteeffekter i resultaträkningen. Skatteeffekter av poster som redovisas direkt mot eget kapital, redovisas mot eget kapital.

Uppskjuten skatt avseende framtida skatteeffekter redovisas i resultat- och balansräkningarna.

Leasing

Leasingavtal redovisas som operationell leasing. Det innebär att leasingavgiften kostnadsförs i resultaträkningen linjärt över leasingperioden.

Ersättningar till anställda

Kortfristiga ersättningar i bolaget utgörs av lön, sociala avgifter, betald semester, betald sjukfrånvaro, sjukvård och bonus. Kortfristiga ersättningar redovisas som en kostnad och en skuld då det finns en legal eller informell förpliktelse att betala ut ersättning.

I företaget finns endast avgiftsbestämda pensionsplaner. Som avgiftsbestämda planer klassificeras planer där fastställda avgifter betalas och det inte finns förpliktelser att betala något ytterligare, utöver dessa avgifter.

Utgifter för avgiftsbestämda planer redovisas som en kostnad under den period de anställda utför de tjänster som ligger till grund för förpliktelsen.

Materiella anläggningstillgångar

Materiella anläggningstillgångar redovisas till anskaffningsvärdet minskat med ackumulerade avskrivningar och eventuella nedskrivningar. Avskrivning sker linjärt över tillgångens beräknade nyttjandeperiod.

Möbler	3 år
Maskiner	3 år
Datorer	3 år

Kassaflödesanalys

Kassaflödesanalysen upprättas enligt indirekt metod. Det redovisade kassaflödet omfattar endast transaktioner som medfört in- eller utbetalningar.

Som likvida medel klassificerar företaget, förutom kassamedel, disponibla tillgodohavanden hos banker och andra kreditinstitut samt kortfristiga likvida placeringar som är noterade på en marknadsplats och har en kortare löptid än tre månader från anskaffningstidpunkten. Förändringar i spärrade medel redovisas i investeringsverksamheten.

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Uppskattningar och bedömningar

Bolaget gör uppskattningar och bedömningar om framtiden. De uppskattningar som görs för redovisningsändamål som blir följden av dessa kommer, definitionsmässigt, sällan att motsvara det verkliga resultatet. Bolaget gör inga uppskattningar och antaganden som innebär en betydande risk för väsentliga justeringar i redovisade värden för tillgångar och skulder under nästkommande år.

Nyckeltalsdefinitioner

Nettoomsättning
Rörelsens huvudintäkter, fakturerade kostnader, sidointäkter samt intäktskorrigeringar.

Resultat efter finansiella poster
Resultat efter finansiella intäkter och kostnader men före bokslutsdispositioner och skatter.

Eget kapital
Företagets nettotillgångar, dvs skillnaden mellan tillgångar och skulder.

Balansomslutning
Företagets samlade tillgångar.

Antal anställda
Medelantal anställda under räkenskapsåret.

Soliditet (%)
Justerat eget kapital (eget kapital och obeskattade reserver med avdrag för uppskjuten skatt) i procent av balansomslutning.

Avkastning på eget kap. (%)
Resultat efter skatt dividerat med eget kapital

Not 2 Nettoomsättningens fördelning

	2023	**2022**
Nettoomsättningen per rörelsegren		
Fastighetsförvaltning samt tillhörande tjänster	537 838 156	473 805 606
Projektledning	140 968 167	154 302 879
	678 806 323	**628 108 485**
Nettoomsättningen per geografisk marknad		
Sverige	673 072 986	620 051 415
Övriga nordiska länder	1 285 558	3 106 333
Europa exklusive Norden	4 447 779	4 950 737
	678 806 323	**628 108 485**

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Not 3 Leasingavtal

Årets leasingkostnader avseende leasingavtal, uppgår till 6 701 771 (5 647 124) kronor.

Framtida leasingavgifter, för icke uppsägningsbara leasingavtal, förfaller till betalning enligt följande:

	2023	**2022**
Inom ett år	2 951 563	1 155 796
Senare än ett år men inom fem år	6 350 733	1 075 076
	9 302 296	**2 230 872**

Bolagets leasing består främst av bilar samt lokalhyra.

Not 4 Arvode till revisorer

Med revisionsuppdrag avses granskning av årsredovisningen och bokföringen samt styrelsens förvaltning, övriga arbetsuppgifter som det ankommer på bolagets revisor att utföra samt rådgivning eller annat biträde som föranleds av iakttagelser vid sådan granskning eller genomförandet av sådana övriga arbetsuppgifter.

	2023	**2022**
KPMG AB		
Revisionsuppdrag	-492 550	-521 975
	-492 550	**-521 975**

Not 5 Anställda och personalkostnader

	2023	**2022**
Medelantalet anställda		
Kvinnor	114	100
Män	159	162
	273	**262**
Löner och andra ersättningar		
Styrelse och verkställande direktör	-3 339 029	-3 984 180
Tantiem och liknande ersättning till styrelse och verkställande direktör	-2 419 377	-866 100
Övriga anställda	-160 529 491	-156 920 240
	-166 287 897	**-161 770 520**
Sociala kostnader		
Pensionskostnader för styrelse och verkställande direktör	-478 182	-612 933
Pensionskostnader för övriga anställda	-21 046 803	-22 087 745
Övriga sociala avgifter enligt lag och avtal	-53 720 417	-51 052 349
	-75 245 402	**-73 753 027**
Totala löner, ersättningar, sociala kostnader och pensionskostnader	**-241 533 299**	**-235 523 547**
Könsfördelning bland ledande befattningshavare		
Andel kvinnor i styrelsen	33 %	67 %
Andel män i styrelsen	67 %	33 %

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Not 6 Inköp och försäljning mellan koncernföretag

	2023	2022
Andel av årets totala inköp som skett från andra företag i koncernen	4,00 %	5,00 %
Andel av årets totala försäljningar som skett till andra företag i koncernen	1,00 %	1,00 %

Not 7 Resultat från andelar i koncernföretag

	2023	2022
Resultat	98 462 341	0
Nedskrivningar	-98 462 341	0
	0	**0**

I februari 2023 förvärvades H2M Sverige AB med fyra dotterbolag. H2M är ett ledande företag inom tekniskt underhåll och fastighetsförvaltning. I december 2023 genomfördes en omstrukturering genom ett internt förvärv där CBRE GWS Sweden AB förvärvade samtliga aktier i H2M Fastighetsteknik AB från H2M Sverige AB.

Not 8 Räntekostnader och liknande resultatposter

	2023	2022
Räntekostnader till koncernföretag	0	0
Övriga räntekostnader	-378 767	-343 824
	-378 767	**-343 824**

Not 9 Aktuell och uppskjuten skatt

	2023	2022
Skatt på årets resultat		
Aktuell skatt	-386 860	-1 305 635
Totalt redovisad skatt	**-386 860**	**-1 305 635**

Avstämning av effektiv skatt

	2023		2022	
	Procent	**Belopp**	**Procent**	**Belopp**
Redovisat resultat före skatt		5 842 230		5 558 883
Skatt enligt gällande skattesats	20,60	-1 203 499	20,60	-1 145 130
Ej avdragsgilla kostnader	5,50	-323 567	2,89	-160 506
Ej skattepliktiga intäkter	-2,90	167 835	0,00	0
Justering avseende skatter för tidigare år	1,70	-99 495	0,00	0
Utnyttjande av tidigare ej aktiverade underskottsavdrag	-18,30	1 071 866	0,00	0
Redovisad effektiv skatt	**6,62**	**-386 860**	**23,49**	**-1 305 636**

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Not 10 Inventarier, verktyg och installationer

	2023	2022
Ingående anskaffningsvärden	206 953	501 430
Inköp	857 625	206 953
Försäljningar/utrangeringar	0	-501 430
Utgående ackumulerade anskaffningsvärden	**1 064 578**	**206 953**
Ingående avskrivningar	-3 449	-501 430
Försäljningar/utrangeringar	0	501 430
Årets avskrivningar	-213 550	-3 449
Utgående ackumulerade avskrivningar	**-216 999**	**-3 449**
Utgående redovisat värde	**847 579**	**203 504**

Not 11 Andelar i koncernföretag

	2023-12-31	2022-12-31
Ingående anskaffningsvärden	0	0
Förvärv	122 888 341	0
Utgående ackumulerade anskaffningsvärden	**122 888 341**	**0**
Utgående redovisat värde	**122 888 341**	**0**

Not 12 Specifikation andelar i koncernföretag

	Kapitalandel	Antal andelar	Bokfört värde 2023	Bokfört värde 2022
H2M Fastighetsteknik AB, 556639-8003, Stockholm	100%	5 000	110 675 341	0
H2M Sverige AB, 559035-8411, Stockholm	100%	1 061	12 213 000	0
			122 888 341	**0**

Not 13 Förutbetalda kostnader och upplupna intäkter

	2023-12-31	2022-12-31
Förutbetalda hyreskostnader	500 670	385 700
Förutbetalda kostnader för kunds räkning	12 704 082	14 413 618
Övriga förutbetalda kostnader	20 547	2 446 137
	13 225 299	**17 245 455**

Not 14 Antal aktier och kvotvärde

Namn	Antal aktier	Kvot-värde
Antal aktier	500	100
	500	

DocuSign Envelope ID: F949D9C8-25DC-4144-B301-A60B9E215F98

Not 15 Upplupna kostnader och förutbetalda intäkter

	2023-12-31	2022-12-31
Upplupen lön inklusive sociala avgifter	19 429 693	16 877 212
Semesterlöner inklusive sociala avgifter	25 459 368	22 283 152
Övriga upplupna kostnader för kunds räkning	6 433 912	14 988 426
Övriga upplupna kostnader	51 236 537	50 316 166
	102 559 510	**104 464 956**

Not 16 Uppgifter om moderföretag

Företaget upprättar ingen koncernredovisning med hänvisning till ÅRL kap. 7, 2 § då företaget och dess dotterföretag omfattas av en koncernredovisning som upprättas av överordnat moderföretag, CBRE Group Inc.

Moderföretag i den minsta koncern där företaget ingår och som upprättar koncernredovisning är CBRE Group Inc. med organisationsnummer 3358676 med säte i Dallas, Texas, USA.

Koncernredovisningen för CBRE Group Inc. finns på
https://ir.cbre.com/financials/annual-reports/default.aspx

Not 17 Väsentliga händelser efter räkenskapsårets slut

I februari 2024 betalades den resterande delen (39 699 370 SEK) av köpeskillingen vid förvärvet av H2M Sverige AB.

Not 18 Disposition av vinst eller förlust

	2023-12-31
Förslag till vinstdisposition	
Styrelsen föreslår att till förfogande stående vinstmedel:	
balanserad vinst	193 744 065
årets vinst	5 455 370
	199 199 435
disponeras så att	
i ny räkning överföres	199 199 435
	199 199 435

DocuSign Envelope ID: F949D9C8-25DC-4144-B301-A60B9E215F98

Underskrifter

Stockholm, den dag som framgår av respektive befattningshavares elektroniska underskrift

DocuSigned by:
8E42A8B0427C48B...
Paul Chun Kit Wan
Ordförande

DocuSigned by:
63203155 31CF4D9...
Mattias Wennberg
Styrelseledamot

Vår revisionsberättelse har lämnats den dag som framgår av min elektroniska underskrift

KPMG AB

DocuSigned by:
AD5B5BE989D34BD...
Mattias Lötborn
Auktoriserad revisor

DocuSign

Certificate Of Completion

Envelope Id: F949D9C825DC4144B301A60B9E215F98
Status: Completed

Subject: Complete with Docusign: 556991-2628 CBRE GWS Sweden AB 2023 SFS.pdf

Source Envelope:

Document Pages: 15
Signatures: 3
Certificate Pages: 6
Initials: 0
AutoNav: Enabled
EnvelopeId Stamping: Enabled
Time Zone: (UTC+01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna

Envelope Originator:
Anna Fahlman
400 S Hope St Ste 25
Los Angeles, 90071-2800
Anna.Fahlman@cbre.com
IP Address: 185.69.116.108

Record Tracking

Status: Original
June 19, 2024 | 14:01

Holder: Anna Fahlman
Anna.Fahlman@cbre.com

Location: DocuSign

Signer Events

Mattias Wennberg
Mattias.Wennberg@cbre.com
Security Level: Email, Account Authentication (None)

Signature

DocuSigned by:
6320315531CF4D9...

Signature Adoption: Drawn on Device
Using IP Address: 185.69.116.107

Timestamp

Sent: June 19, 2024 | 14:14
Viewed: June 19, 2024 | 21:30
Signed: June 19, 2024 | 21:32

Authentication Details
Identity Verification Details:
Workflow ID: 1630fe20-b82d-4d58-a81c-bf16e7488b77
Workflow Name: DocuSign ID Verification
Workflow Description: The signer will need to identify themselves with a valid government ID.
Identification Method: Electronic ID
Type of Electronic ID: BankID Sweden
Transaction Unique ID: 61633f84-c954-58da-99eb-d386e2092f85
Country or Region of ID: SE
Result: Passed
Performed: June 19, 2024 | 21:30

Electronic Record and Signature Disclosure:
Accepted: June 19, 2024 | 21:30
ID: 593f7048-4e02-4a02-9722-481c521c34bc

Paul Chun Kit Wan
Paul.Wan@cbre.com
Managing Director
Security Level: Email, Account Authentication (None)

DocuSigned by:
8E42A8B0427C48B...

Signature Adoption: Uploaded Signature Image
Using IP Address: 185.69.116.105

Sent: June 19, 2024 | 21:32
Viewed: June 20, 2024 | 07:55
Signed: June 20, 2024 | 07:57

Authentication Details
Identity Verification Details:
Workflow ID: 1630fe20-b82d-4d58-a81c-bf16e7488b77
Workflow Name: DocuSign ID Verification
Workflow Description: The signer will need to identify themselves with a valid government ID.
Identification Method: Electronic ID
Type of Electronic ID: BankID Sweden
Transaction Unique ID: 67ce4a2d-7015-566d-ae53-6040e92812b0
Country or Region of ID: SE
Result: Passed
Performed: June 20, 2024 | 07:55

Electronic Record and Signature Disclosure:
Accepted: June 20, 2024 | 07:55
ID: 9a68d64b-c0ba-454c-be22-dc35bd5388ac

Signer Events	Signature	Timestamp
Mattias Lötborn mattias.lotborn@kpmg.se KPMG AB Security Level: Email, Account Authentication (None)	DocuSigned by: Mattias Lötborn AD5B5BE989D34BD...	Sent: June 20, 2024 | 07:57 Resent: June 24, 2024 | 15:34 Viewed: June 28, 2024 | 12:33 Signed: June 28, 2024 | 12:33
	Signature Adoption: Pre-selected Style Using IP Address: 195.84.56.2	

Authentication Details

Identity Verification Details:
- Workflow ID: 1630fe20-b82d-4d58-a81c-bf16e7488b77
- Workflow Name: DocuSign ID Verification
- Workflow Description: The signer will need to identify themselves with a valid government ID.
- Identification Method: Electronic ID
- Type of Electronic ID: BankID Sweden
- Transaction Unique ID: 1137d22f-8e5a-5b4c-b815-b25be83b5ad2
- Country or Region of ID: SE
- Result: Passed
- Performed: June 28, 2024 | 12:33

Identity Verification Details:
- Workflow ID: 1630fe20-b82d-4d58-a81c-bf16e7488b77
- Workflow Name: DocuSign ID Verification
- Workflow Description: The signer will need to identify themselves with a valid government ID.
- Identification Method: Electronic ID
- Type of Electronic ID: BankID Sweden
- Transaction Unique ID: 4ccf5024-41fe-5dd1-8886-00452077088e
- Country or Region of ID: SE
- Result: Passed
- Performed: June 28, 2024 | 12:35

Electronic Record and Signature Disclosure:
- Accepted: June 30, 2022 | 17:43
- ID: 91d76329-0742-47cd-b6f9-18ea06c82356

In Person Signer Events	Signature	Timestamp
Editor Delivery Events	**Status**	**Timestamp**
Agent Delivery Events	**Status**	**Timestamp**
Intermediary Delivery Events	**Status**	**Timestamp**
Certified Delivery Events	**Status**	**Timestamp**
Carbon Copy Events	**Status**	**Timestamp**
Janine Coto-Horsthemke Janine.CotoHorsthemke@cbre.com Security Level: Email, Account Authentication (None)	COPIED	Sent: June 28, 2024 | 12:33 Viewed: June 28, 2024 | 12:54

Electronic Record and Signature Disclosure:
- Not Offered via DocuSign

Witness Events	Signature	Timestamp
Notary Events	**Signature**	**Timestamp**

Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	June 19, 2024 | 14:14
Certified Delivered	Security Checked	June 28, 2024 | 12:33
Signing Complete	Security Checked	June 28, 2024 | 12:33
Completed	Security Checked	June 28, 2024 | 12:33
Payment Events	**Status**	**Timestamps**

Electronic Record and Signature Disclosure

Revisionsberättelse

Till bolagsstämman i CBRE GWS Sweden AB, org. nr 556991-2628

Rapport om årsredovisningen

Uttalanden

Vi har utfört en revision av årsredovisningen för CBRE GWS Sweden AB för år 2023.

Enligt vår uppfattning har årsredovisningen upprättats i enlighet med årsredovisningslagen och ger en i alla väsentliga avseenden rättvisande bild av CBRE GWS Sweden ABs finansiella ställning per den 31 december 2023 och av dess finansiella resultat och kassaflöde för året enligt årsredovisningslagen. Förvaltningsberättelsen är förenlig med årsredovisningens övriga delar.

Vi tillstyrker därför att bolagsstämman fastställer resultaträkningen och balansräkningen.

Grund för uttalanden

Vi har utfört revisionen enligt International Standards on Auditing (ISA) och god revisionssed i Sverige. Vårt ansvar enligt dessa standarder beskrivs närmare i avsnittet Revisorns ansvar. Vi är oberoende i förhållande till CBRE GWS Sweden AB enligt god revisorssed i Sverige och har i övrigt fullgjort vårt yrkesetiska ansvar enligt dessa krav.

Vi anser att de revisionsbevis vi har inhämtat är tillräckliga och ändamålsenliga som grund för våra uttalanden.

Styrelsens ansvar

Det är styrelsen som har ansvaret för att årsredovisningen upprättas och att den ger en rättvisande bild enligt årsredovisningslagen. Styrelsen ansvarar även för den interna kontroll som den bedömer är nödvändig för att upprätta en årsredovisning som inte innehåller några väsentliga felaktigheter, vare sig dessa beror på oegentligheter eller misstag.

Vid upprättandet av årsredovisningen ansvarar styrelsen för bedömningen av bolagets förmåga att fortsätta verksamheten. Den upplyser, när så är tillämpligt, om förhållanden som kan påverka förmågan att fortsätta verksamheten och att använda antagandet om fortsatt drift. Antagandet om fortsatt drift tillämpas dock inte om styrelsen avser att likvidera bolaget, upphöra med verksamheten eller inte har något realistiskt alternativ till att göra något av detta.

Revisorns ansvar

Våra mål är att uppnå en rimlig grad av säkerhet om huruvida årsredovisningen som helhet inte innehåller några väsentliga felaktigheter, vare sig dessa beror på oegentligheter eller misstag, och att lämna en revisionsberättelse som innehåller våra uttalanden. Rimlig säkerhet är en hög grad av säkerhet, men är ingen garanti för att en revision som utförs enligt ISA och god revisionssed i Sverige alltid kommer att upptäcka en väsentlig felaktighet om en sådan finns. Felaktigheter kan uppstå på grund av oegentligheter eller misstag och anses vara väsentliga om de enskilt eller tillsammans rimligen kan förväntas påverka de ekonomiska beslut som användare fattar med grund i årsredovisningen.

Som del av en revision enligt ISA använder vi professionellt omdöme och har en professionellt skeptisk inställning under hela revisionen. Dessutom:

- identifierar och bedömer vi riskerna för väsentliga felaktigheter i årsredovisningen, vare sig dessa beror på oegentligheter eller misstag, utformar och utför granskningsåtgärder bland annat utifrån dessa risker och inhämtar revisionsbevis som är tillräckliga och ändamålsenliga för att utgöra en grund för våra uttalanden. Risken för att inte upptäcka en väsentlig felaktighet till följd av oegentligheter är högre än för en väsentlig felaktighet som beror på misstag, eftersom oegentligheter kan innefatta agerande i maskopi, förfalskning, avsiktliga utelämnanden, felaktig information eller åsidosättande av intern kontroll.
- skaffar vi oss en förståelse av den del av bolagets interna kontroll som har betydelse för vår revision för att utforma granskningsåtgärder som är lämpliga med hänsyn till omständigheterna, men inte för att uttala oss om effektiviteten i den interna kontrollen.
- utvärderar vi lämpligheten i de redovisningsprinciper som används och rimligheten i styrelsens uppskattningar i redovisningen och tillhörande upplysningar.
- drar vi en slutsats om lämpligheten i att styrelsen använder antagandet om fortsatt drift vid upprättandet av årsredovisningen. Vi drar också en slutsats, med grund i de inhämtade revisionsbevisen, om huruvida det finns någon väsentlig osäkerhetsfaktor som avser sådana händelser eller förhållanden som kan leda till betydande tvivel om bolagets förmåga att fortsätta verksamheten. Om vi drar slutsatsen att det finns en väsentlig osäkerhetsfaktor, måste vi i revisionsberättelsen fästa uppmärksamheten på upplysningarna i årsredovisningen om den väsentliga osäkerhetsfaktorn eller, om sådana upplysningar är otillräckliga, modifiera uttalandet om årsredovisningen. Våra slutsatser baseras på de revisionsbevis som inhämtas fram till datumet för revisionsberättelsen. Dock kan framtida händelser eller förhållanden göra att ett bolag inte längre kan fortsätta verksamheten.
- utvärderar vi den övergripande presentationen, strukturen och innehållet i årsredovisningen, däribland upplysningarna, och om årsredovisningen återger de underliggande transaktionerna och händelserna på ett sätt som ger en rättvisande bild.

Vi måste informera styrelsen om bland annat revisionens planerade omfattning och inriktning samt tidpunkten för den. Vi måste också informera om betydelsefulla iakttagelser under revisionen, däribland de eventuella betydande brister i den interna kontrollen som vi identifierat.

Penneo document key: 8L0VY-OSCU5-Q5I6N-D5EP8-08YL5-3AQT3

Rapport om andra krav enligt lagar och andra författningar

Uttalanden

Utöver vår revision av årsredovisningen har vi även utfört en revision av styrelsens förvaltning för CBRE GWS Sweden AB för år 2023 samt av förslaget till dispositioner beträffande bolagets vinst eller förlust.

Vi tillstyrker att bolagsstämman disponerar vinsten enligt förslaget i förvaltningsberättelsen och beviljar styrelsens ledamöter ansvarsfrihet för räkenskapsåret.

Grund för uttalanden

Vi har utfört revisionen enligt god revisionssed i Sverige. Vårt ansvar enligt denna beskrivs närmare i avsnittet Revisorns ansvar. Vi är oberoende i förhållande till CBRE GWS Sweden AB enligt god revisorssed i Sverige och har i övrigt fullgjort vårt yrkesetiska ansvar enligt dessa krav.

Vi anser att de revisionsbevis vi har inhämtat är tillräckliga och ändamålsenliga som grund för våra uttalanden.

Styrelsens ansvar

Det är styrelsen som har ansvaret för förslaget till dispositioner beträffande bolagets vinst eller förlust. Vid förslag till utdelning innefattar detta bland annat en bedömning av om utdelningen är försvarlig med hänsyn till de krav som bolagets verksamhetsart, omfattning och risker ställer på storleken av bolagets egna kapital, konsolideringsbehov, likviditet och ställning i övrigt.

Styrelsen ansvarar för bolagets organisation och förvaltningen av bolagets angelägenheter. Detta innefattar bland annat att fortlöpande bedöma bolagets ekonomiska situation och att tillse att bolagets organisation är utformad så att bokföringen, medelsförvaltningen och bolagets ekonomiska angelägenheter i övrigt kontrolleras på ett betryggande sätt.

Revisorns ansvar

Vårt mål beträffande revisionen av förvaltningen, och därmed vårt uttalande om ansvarsfrihet, är att inhämta revisionsbevis för att med en rimlig grad av säkerhet kunna bedöma om någon styrelseledamot i något väsentligt avseende:

- företagit någon åtgärd eller gjort sig skyldig till någon försummelse som kan föranleda ersättningsskyldighet mot bolaget, eller
- på något annat sätt handlat i strid med aktiebolagslagen, årsredovisningslagen eller bolagsordningen.

Vårt mål beträffande revisionen av förslaget till dispositioner av bolagets vinst eller förlust, och därmed vårt uttalande om detta, är att med rimlig grad av säkerhet bedöma om förslaget är förenligt med aktiebolagslagen.

Rimlig säkerhet är en hög grad av säkerhet, men ingen garanti för att en revision som utförs enligt god revisionssed i Sverige alltid kommer att upptäcka åtgärder eller försummelser som kan föranleda ersättningsskyldighet mot bolaget, eller att ett förslag till dispositioner av bolagets vinst eller förlust inte är förenligt med aktiebolagslagen.

Som en del av en revision enligt god revisionssed i Sverige använder vi professionellt omdöme och har en professionellt skeptisk inställning under hela revisionen. Granskningen av förvaltningen och förslaget till dispositioner av bolagets vinst eller förlust grundar sig främst på revisionen av räkenskaperna. Vilka tillkommande granskningsåtgärder som utförs baseras på vår professionella bedömning med utgångspunkt i risk och väsentlighet. Det innebär att vi fokuserar granskningen på sådana åtgärder, områden och förhållanden som är väsentliga för verksamheten och där avsteg och överträdelser skulle ha särskild betydelse för bolagets situation. Vi går igenom och prövar fattade beslut, beslutsunderlag, vidtagna åtgärder och andra förhållanden som är relevanta för vårt uttalande om ansvarsfrihet. Som underlag för vårt uttalande om styrelsens förslag till dispositioner beträffande bolagets vinst eller förlust har vi granskat om förslaget är förenligt med aktiebolagslagen.

Stockholm den

KPMG AB

Mattias Lötborn
Auktoriserad revisor

Penneo document key: 8L0VY-OSCU5-Q5J6N-D5EP8-08YL5-3AQT3

Signaturerna i detta dokument är juridiskt bindande. Dokumentet är signerat genom Penneo™ för säker digital signering. Tecknarnas identitet har lagrats, och visas nedan.

"Med min signatur bekräftar jag innehållet och alla datum i detta dokumentet."

MATTIAS LÖTBORN
Auktoriserad revisor
Serienummer: b2466e69b84f6d[…]05f580af125fc
IP: 195.84.xxx.xxx
2024-06-28 10:37:27 UTC

Penneo dokumentnyckel: 8LOVY-OSCUS-Q5J6N-D5EP8-08YL5-3AQT3

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

FORM 10-K

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

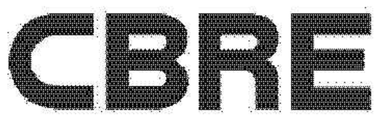
For the fiscal year ended December 31, 2023

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	**94-3391143**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
2100 McKinney Avenue, Suite 1250, Dallas, Texas	**75201**
(Address of principal executive offices)	(Zip Code)

(214) 979-6100
(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 if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

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 has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firms that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

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

As of June 30, 2023, the aggregate market value of Class A Common Stock held by non-affiliates of the registrant was $ 24.2 billion based upon the last sales price on June 30, 2023 on the New York Stock Exchange of $80.71 for the registrant's Class A Common Stock.

As of February 15, 2024, the number of shares of Class A Common Stock outstanding was 305,695,875.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the proxy statement for the registrant's 2024 Annual Meeting of Stockholders to be held May 22, 2024 are incorporated by reference in Part III of this Annual Report on Form 10-K.

CBRE GROUP, INC.
ANNUAL REPORT ON FORM 10-K

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PART I

Item 1. Business.

Company Overview

CBRE is the world's largest commercial real estate services and investments firm. Our competitive advantage comes from our considerable scale and ability to offer integrated solutions to real estate investors and occupiers in more than 100 countries. We are global market leaders in most lines of business we serve and drive significant growth from bundling these services, while helping our clients optimize real estate costs, value, investment returns and workplace experiences. These capabilities, combined with our extensive research and data platform, allow us to generate superior outcomes for our clients, which include nearly 90% of Fortune 100 companies in 2023, and many of the world's largest institutional real estate investors.

The future growth opportunity across our company is enhanced by the large and expanding base of commercial real estate assets globally. We are focused on cementing our leadership position in each of our businesses with a strategy that achieves diversification and growth across four dimensions: geographies, clients, property types and services. We are committed to deploying our resources and capital across these four dimensions in parts of our business that have secular tailwinds and/or provide cyclical resilience. Examples of this include our recent investments in the global project management firm, Turner & Townsend, and the flexible office platform, Industrious, as well as increased focus on geographies that are well positioned for growth, such as Japan and asset classes such as industrial and multi-family. As a result, we have built a large and more resilient services offering. Our platform – the resources and infrastructure that support our professionals and underpin our growth, such as research, marketing, data and technology – combined with our balance sheet strength, provide us access to top talent and compelling growth opportunities.

Business Segments

We serve clients through three business segments: Advisory Services, Global Workplace Solutions and Real Estate Investments, and a fourth segment, called Corporate and other, which encompasses our platform and non-core investments.

Advisory Services

Advisory Services provides a comprehensive range of services globally, including property leasing; capital markets, which includes property sales and mortgage origination; mortgage servicing; property management and valuation. With a global network of experts that have a deep understanding of their local markets, we offer comprehensive insights and solutions across a wide range of real estate assets. Our client base is comprised of large occupiers and investors who contract for our services across multi-market portfolios as well as local market clients that we serve on a one-off basis.

We are leaders in each of our five primary business lines globally (property leasing, capital markets, mortgage servicing, property management and valuation) and in most key local markets across the world. We leverage our platform to attract and retain top talent as well as provide differentiated insights to our clients through our at-scale investments in research, data, technology tools and property marketing. We also focus on serving clients end-to-end through the intentional bundling of our various services. For example, as our investor clients seek to optimize the value and performance of their assets across the real estate lifecycle, we often bring together expertise from property sales, mortgage originations, leasing, valuations and property management. While many of our business lines in this segment are sensitive to changes in macro-economic conditions, their cyclicality is partly offset by the value investors and occupiers place on our insights and consulting services through cycles as they adjust their real estate portfolios and strategies in response to changing market circumstances. In contrast, our loan servicing, property management and valuations businesses, while a smaller part of our revenue mix, have proven to be more resilient than property sales, mortgage originations and leasing through periods of economic slowdown. For example, in the last five years, we have organically grown our loan servicing revenue at a low double digit compound annual growth rate (CAGR) and revenue in both property management and valuations at a mid-single digit CAGR, despite challenging macroeconomic conditions. We remain committed to growing these resilient business lines further, particularly where there are clear and sustained demand tailwinds.

Global Workplace Solutions

Global Workplace Solutions (GWS) is the leading global provider of integrated facilities management and project management solutions for major occupiers of commercial real estate. This segment benefits from multiple tailwinds, most notably multi-national corporations' increased desire to outsource and consolidate real estate services to optimize costs, operational efficiencies and workplace experiences. We serve, typically through multi-year contracts, large global corporations including many Fortune 500 firms through our GWS Enterprise business as well as smaller occupiers with more localized portfolios through our GWS Local business.

With facilities management experts in more than 100 countries, we perform mission-critical technical services and maintenance in more locations worldwide than any other provider. This allows us to deliver tailored property solutions at both a local and global level, while increasing quality and experience, reducing cost and mitigating risk. We provide these services across virtually all asset types including offices, retail outlets, laboratories, data centers, manufacturing environments, warehouses and mission-critical facilities. We achieve growth by investing in (a) superior talent and processes that deliver account excellence; (b) capabilities to perform a wide range of technical services in-house that increase our clients' real estate operational efficiency and reliability while reducing carbon emissions and lowering costs; (c) proprietary technology and data solutions that allow us to amass data at scale and deliver actionable insights to clients for managing complex challenges; and (d) ongoing acquisition activity, including larger companies such as Norland Managed Services, which marked our entry into the local facilities management space, and the Johnson Controls Global Workplace Solutions business, which substantially scaled our core enterprise facilities management business, as well as numerous in-fill transactions.

Our project management business, which encompasses CBRE's wholly-owned services and those delivered by our majority-owned subsidiary Turner & Townsend, delivers program management, project management, and cost consultancy services across commercial real estate, infrastructure and natural resources sectors. With our combined capabilities, we are a leading global, full-service building consulting, program, project and cost management provider, completing nearly 65,000 projects/programs and managing nearly $2.9 trillion in capital spend annually. We manage a wide range of programs and projects from small repairs/refurbishments in corporate facilities to massive infrastructure projects such as airports and power stations. We also increasingly serve clients for net-zero program management and energy and sustainability solutions. Our scale, highly diverse capabilities and technology investments in this business allow us to solve our clients' and industry's biggest challenges in managing capital projects around the world.

Real Estate Investments

Real Estate Investments (REI) is a large real assets developer, investor and operator. This segment is comprised of two businesses: investment management and real estate development.

With more than $145 billion (as of December 31, 2023) in assets under management, CBRE Investment Management (IM) is one of the leading investment platforms in global real assets. The growth opportunity in this business is enhanced by investors' growing appetite for investment alternatives, including real estate, that diversify their holdings and offer the potential for higher returns compared to traditional investment strategies. Much like other parts of our company, IM is diversified across many dimensions – investment strategies, sectors, geographies, risk profiles and execution formats. IM invests capital on behalf of pension funds, insurance companies, sovereign wealth funds, and other institutional investors in real estate, infrastructure, master limited partnerships and other assets. We often hold a co-investment in many of our investment funds and programs. Our primary investment categories include private direct real estate, private indirect real estate through third-party operators, listed real assets and private infrastructure.

Our real estate development business – Trammell Crow Company (TCC) in the U.S., U.K., and Continental Europe, and Telford Homes in the U.K. multifamily residential market – provides leading-edge development services to real estate investors, owners and occupiers. TCC has been the largest commercial developer in the U.S. for the last ten years and has a track record of developing best-in-class buildings across multiple property sectors in top-tier markets across the U.S. and Europe. Our portfolio represents a diversified mix of projects that we either own 100% or participate economically via co-investment with strategic capital partners as well as fee-based developments, such as built-to-suit projects. Our in-process portfolio and pipeline totaled nearly $30 billion (as of December 31, 2023) and spanned industrial, office, multifamily residential, retail, life sciences and healthcare properties. We have a track record of generating high investment returns for the company and our capital partners and our conservative, risk-mitigated capital structures enable us to time asset dispositions when market circumstances are most favorable.

We drive growth in this segment by: (a) enabling REI's real-time access to the broader CBRE global brand, boots-on-the-ground market intelligence, and IM's and TCC's own investments in research/data that enable them to identify early and invest in secularly favored markets/products with tailwinds; (b) leveraging CBRE's balance sheet to create opportunities for co-investment alongside our investor clients in our fund vehicles and developments; and (c) benefiting from the strong and continued partnership between IM and TCC.

Corporate and Other Segment

The Corporate and other segment houses most costs associated with our platform – the resources and infrastructure that support our professionals and support our growth – that are not allocated to the client-facing business segments, including corporate leadership costs. We believe the platform – ranging from research to marketing to data/technology to procurement and more – is a distinct advantage because of the level of resources and investment that our scale and financial strength allow us to make in these areas. In this segment, we also account for the value of our investments in non-core, non-controlling equity investments.

Competitive Positioning

Because of the range of services we provide and numerous markets we serve, we encounter a wide variety of competitors, including a handful of globally diversified real estate services firms that are well-established but smaller than CBRE, as well as many business-line-specific specialists that operate in various geographies. Despite this competition, we are the market leaders in most of our business lines, with significant opportunities for continued growth. These opportunities result from clients highly valuing our scale, depth of expertise, technology and data-led insights, as well as their increasing preference for consolidating the number of service providers, which plays to our advantage in delivering integrated solutions globally. Our large balance sheet enables significant investments in our platform, market-leading talent recruitment and transformational M&A execution.

Human Capital

People are at the center of our business strategy. We have learning & development programs designed to help our professionals succeed and develop future leaders, including: webinars, live virtual and in-person training, self-paced digital learning, coaching, mentoring and on-the-job learning. We also reward our people with competitive pay and benefits, foster an engaging and inclusive workplace, and improve productivity through investments in technology, tools and resources.

At December 31, 2023, we had more than 130,000 employees (including Turner & Townsend employees) worldwide, of which 34.5% are female and 65.5% are male. The costs associated with approximately 62% of our people are fully reimbursed by clients and are mainly in our Global Workplace Solutions and property management businesses. At December 31, 2023, approximately 14% of our employees worldwide were subject to collective bargaining agreements.

Diversity, Equity & Inclusion (DE&I)

We are committed to increasing the diversity of our workforce, strengthening an inclusive culture where everyone is valued and supported in achieving their full potential, and investing in the communities where we live and work. These efforts are led by our Chief Culture Officer, a senior executive level position reporting directly to our Chief Executive Officer, and include collaborating with partners to increase outreach to and help develop diverse talent, organizing internal events to foster belonging and building a diverse talent pool and interview process. We spent nearly $2 billion with diverse suppliers in 2023, with a goal to lift that annual spend to $3 billion by the end of 2025. Also, we made significant financial contributions to nonprofit organizations that are helping to improve education and career development opportunities for people in diverse and underrepresented communities. We publicly report demographics, including diversity data, for our U.S. workforce annually in our Corporate Responsibility Report, in accordance with reporting requirements by the U.S. Equal Employment Opportunity Commission.

Intellectual Property

We hold various trademarks and trade names worldwide, including the "CBRE," "Turner & Townsend" and "Telford" marks. We believe the "CBRE" and "Trammell Crow Company" marks are vitally important in maintaining our leadership position. We hold a license to use the "Trammell Crow Company" trade name pursuant to a license agreement with CF98, L.P., an affiliate of Crow Realty Investors, L.P., d/b/a Crow Holdings, which may be revoked if we fail to satisfy usage and quality control covenants under the license agreement. We also hold a number of issued and pending patent applications relating to proprietary technologies, and intend to file additional patent applications reflecting our commitment to technology and innovation.

Material Governmental Matters

Environment

Certain federal, state and local laws and regulations may impose liability on current or previous real property owners or operators for the cost of investigating, cleaning up or removing contamination caused by hazardous or toxic substances at a property. If contamination is present during our role as a property or facility manager or developer, we could be held liable for such costs as a current "operator" of a property, regardless of the legality of the acts or omissions that caused the contamination and without regard to whether we knew of, or were responsible for, the presence of such hazardous or toxic substances. Further, federal, state and local governments in various countries have enacted various laws, regulations and treaties governing climate change, particularly for "greenhouse gas emissions" which seek to tax, penalize or limit their release. Such regulations could lead to increased operational or compliance costs over time. We are not aware of any material noncompliance with the environmental laws or regulations currently applicable to us, and we are not the subject of any material claim for liability with respect to contamination at any location. However, these laws and regulations may discourage sales and leasing activities and mortgage lending with respect to some properties, which may adversely affect us. Environmental contamination or other environmental liabilities may also negatively affect the value of commercial real estate assets held by entities that are managed by our investment management and development services businesses.

Environmental Sustainability

We have developed measurable environmental and sustainability goals for 2035, grounded in science and an assessment of where our operations have the most significant potential to impact on the environment, as well as the areas where we can most effectively mitigate that impact. These include a goal to reduce absolute Scope 1 and 2 greenhouse gas emissions 68% from the 2019 base year. Additional information about our approach to corporate social responsibility and to environmental, social and governance (ESG) issues is available in the CBRE Corporate Responsibility Report. The contents of our website and Corporate Responsibility Report are referenced for general information only and are not incorporated in this Annual Report on Form 10-K.

Available Information

In this Annual Report on Form 10-K, we use the terms "CBRE," "we," the "company," "our," and "us" to refer to CBRE Group, Inc. and all of its consolidated subsidiaries, unless otherwise indicated or the context requires otherwise. Our Annual Report on Form 10-K (Annual Report), Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, Proxy Statements and amendments to those reports filed or furnished pursuant to Sections 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the Exchange Act), are available on the Investor Relations section of our website (https://ir.cbre.com/) as soon as reasonably practicable after we electronically file such material with, or furnish it to, the U.S. Securities and Exchange Commission (SEC). We also make available through our website other reports filed with or furnished to the SEC under the Exchange Act, including reports filed by our officers and directors under Section 16(a) of the Exchange Act. All of the information on our Investor Relations website is available to be viewed free of charge. The SEC maintains a website (https://www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

Our website (https://www.cbre.com) contains information concerning us. We routinely use our website as a channel of distribution for our information, including financial and other material information. Information contained on our website is not part of this Annual Report or our other filings with the SEC. We have included the web addresses of the company and the SEC as inactive textual references only. Except as specifically incorporated by reference into this document, information on these websites is not part of this document.

Cautionary Note on Forward-Looking Statements

This Annual Report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the Securities Act) and Section 21E of the Exchange Act. The words "anticipate," "believe," "could," "should," "propose," "continue," "estimate," "expect," "intend," "may," "plan," "predict," "project," "will," "forecast," "target" and similar terms and phrases are used in this Annual Report to identify forward-looking statements. Except for historical information contained herein, the matters addressed in this Annual 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 and significant public health events, 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 U.S.;
- 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;
- foreign currency fluctuations and changes in currency restrictions, trade sanctions and import/export and transfer pricing rules;
- 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;
- 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;
- 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;
- negative publicity or harm to our brand and reputation;

- the failure by third parties to comply with service level agreements or regulatory or legal requirements;
- 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;
- the ability of CBRE Capital Markets to periodically amend, or replace, on satisfactory terms, the agreements for its warehouse lines of credit;
- declines in lending activity of U.S. GSEs, regulatory oversight of such activity and our mortgage servicing revenue from the commercial real estate mortgage market;
- 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;
- 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;
- our ability to retain, attract and incentivize key personnel;
- our ability to manage organizational challenges associated with our size;
- liabilities under guarantees, or for construction defects, that we incur in our development services business;
- 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;
- 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, fire and safety building requirements and regulations, as well as data privacy and protection regulations, ESG matters, and 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;
- the performance of our equity investments in companies we do not control; and
- the other factors described elsewhere in this Annual Report, included under the headings "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates," "Quantitative and Qualitative Disclosures About Market Risk" or as described in the other documents and reports we file with the 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 Annual Report or our other filings with the SEC.

Item 1A. Risk Factors.

Set forth below and elsewhere in this Annual Report and in other documents we file with the SEC are risks and uncertainties that could cause our actual results to differ materially from the results contemplated by the forward-looking statements contained in this Annual Report and other public statements we make. Based on the information currently known to us, we believe that the matters discussed below identify the material risk factors affecting our business. However, the risks and uncertainties we face are not limited to those described below. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial, but that could later become material, may also adversely affect our business.

Risks Related to our Business Environment

Our performance is significantly related to general economic, political and regulatory conditions and, accordingly, our business, operations and financial condition could be materially adversely affected by economic slowdowns, liquidity constraints, significant rises in interest rates, significant public health events, fiscal or political uncertainty and possible subsequent downturns in commercial real estate asset values, property sales and leasing activities in the geographies or industry sectors that we or our clients serve.

Periods of economic weakness or recession, fiscal or political uncertainty, market volatility, declining employment levels, declining demand for commercial real estate, falling real estate values, disruption to the global capital or credit markets, significant rises in interest rates or the public perception that any of these events may occur, may materially and negatively affect the performance of some or all of our business lines.

Our business is significantly affected by generally prevailing economic conditions in the markets where we operate. Adverse economic conditions, political or regulatory uncertainty and significant public health events may result in declines in real estate sale and leasing volumes and the value of commercial real estate. It may also lead to a decrease in funds invested in commercial real estate assets and development projects. Such developments in turn may reduce our revenue from property management fees and commissions derived from property sales, leasing, valuation and financing, as well as revenues associated with development or investment management activities. For example, in 2023, commercial real estate capital markets remained under significant pressure. As a result, we experienced a sustained slowdown in property sales and debt financing activity. Furthermore, the Covid-19 pandemic engendered structural changes to the utilization of many types of commercial real estate, which will likely have ongoing repercussions for our business. Our businesses could also suffer from political or economic disruptions (or the perception that such disruptions may occur) that affect interest rates or liquidity or create financial, market or regulatory uncertainty. For example, Russia's invasion of Ukraine in 2022 heightened risks for our operations in Europe, caused us to exit most of our business in Russia, and exacerbated a number of existing macroeconomic challenges that adversely impacted our markets and our business.

We also make co-investments alongside our investor clients in our development and investment management businesses. During an economic downturn, capital for our investment activities could be constrained and it may take longer for us to dispose of real estate investments or sale prices we achieve may be lower than originally anticipated. As a result, the value of our commercial real estate investments may be reduced, and we could realize losses or diminished profitability. In addition, economic downturns may reduce the volume of loans our capital markets business originates and/or services. Fees within our property management business are generally based on a percentage of rent collections, making them sensitive to macroeconomic conditions that negatively impact rent collections and the performance of the properties we manage.

Economic, political and regulatory uncertainty as well as significant changes and volatility in the financial markets and business environment, and in the global landscape, make it difficult for us to predict our financial performance into the future. As a result, any guidance or outlook that we provide on our performance is based on then-current conditions, and there is a risk that such guidance may turn out to be inaccurate.

Adverse developments in the credit markets may materially harm our business, results of operations and financial condition.

Our investment management, development services, capital markets (including property sales and mortgage origination) and mortgage services businesses are sensitive to credit cost and availability as well as financial liquidity. Additionally, the revenues in all of our businesses are dependent to some extent on the overall volume of activity (and pricing) in the commercial real estate markets.

Disruptions in the credit markets may have a material adverse effect on our business of providing advisory services to owners, investors and occupiers of real estate in connection with the leasing, disposition and acquisition of property. If our clients are unable to obtain credit on favorable terms, there may be fewer property leasing, disposition and acquisition transactions. For example, in 2023, central banks around the world continued to raise interest rates in efforts to rein in inflation, reducing credit availability. Less available and more expensive debt capital had pronounced effects on our capital markets, mortgage origination and property sales businesses. In addition, under such conditions, our investment management and development services businesses may be unable to attract capital or achieve returns sufficient to earn incentive fees and we may also experience losses of co-invested equity capital if any such disruption causes a prolonged decline in the value of investments made.

Risks Related to Our Operations

Currency fluctuations could have a material adverse effect on our business, financial condition and operating results.

We conduct a significant portion of our business and employ a substantial number of people outside of the U.S. and, as a result, we are subject to risks associated with doing business globally. During the year ended December 31, 2023, approximately 45% of our revenue was transacted in foreign currencies. We also report our results in U.S. dollars. As a result, the strengthening or weakening of the U.S. dollar will positively or negatively impact our reported results, including revenue and earnings as well as the assets under management for our investment management business, which could have a material adverse effect on our business, financial condition and operating results. 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.

Our operations are subject to international social, political and economic risks in foreign countries.

International economic trends, foreign governmental policy actions and the following factors may have a material adverse effect on the performance of our business:

- difficulties and costs of staffing and managing international operations among diverse geographies, languages and cultures;
- currency restrictions, transfer-pricing regulations and adverse tax consequences, which may affect our ability to transfer capital and profits;
- adverse changes in regulatory or tax requirements and regimes or uncertainty about the application of or the future of such regulatory or tax requirements and regimes;
- responsibility for complying with numerous, potentially conflicting and frequently complex and changing laws in multiple jurisdictions (*e.g.*, with respect to data privacy and protection, sustainability, corrupt practices, embargoes, trade sanctions, employment and licensing);
- the impact of regional or country-specific business cycles and economic instability, including those related to public health or safety events;
- greater difficulty in collecting accounts receivable or delays in client payments in some geographic regions;
- rising interest rates and less available and more expensive debt capital resulting from efforts by central banks outside the U.S. to rein in inflation;
- foreign ownership restrictions in certain countries, particularly in Asia Pacific and the Middle East, or the risk that such restrictions will be adopted in the future; and
- changes in laws or policies governing foreign trade or investment and use of foreign operations or workers, and any negative sentiments towards multinational companies as a result of any such changes to laws or policies as well as other geopolitical risks.

Our international operations require us to comply with a broad range of complex legal and regulatory environments in which we operate. We may not be successful in complying with regulations in all situations and violations may result in criminal or material civil sanctions and other costs against us or our employees, and may have a material adverse effect on our reputation and business. Furthermore, our efforts to comply with developments in these laws may adversely impact our business.

We have committed additional resources to expand our worldwide sales and marketing activities, to globalize our service offerings and products in select markets and to develop local sales and support channels. If we are unable to successfully implement these plans, maintain adequate long-term strategies that successfully manage the risks associated with our global business or adequately manage operational fluctuations, our business, financial condition or results of operations could be harmed. In addition, we have established operations and seek to grow our presence in many emerging markets to further expand our global platform. However, we may not be successful in effectively evaluating and monitoring the key business, operational, legal and compliance risks specific to those markets. The political and cultural risks present in emerging countries could also harm our ability to successfully execute our operations or manage our businesses there.

We have numerous local, regional and global competitors across all of our business lines and the geographies that we serve, and further industry consolidation, fragmentation or innovation could lead to significant future competition.

We compete across a variety of business disciplines within the commercial real estate services and investment industry, including property management, facilities management, project and transaction management, tenant and landlord leasing, capital markets solutions (property sales and commercial mortgage origination) and mortgage services, real estate investment management, valuation, loan servicing, development services and proprietary research. Although we are the largest commercial real estate services firm in the world in terms of 2023 revenue, our relative competitive position varies across geographies, property types and services and business lines.

Depending on the geography, property type or service or business line, we face competition from other commercial real estate services providers and investment firms, including outsourcing companies that traditionally competed in limited portions of our facilities management business and have expanded their offerings from time to time, in-house corporate real estate departments, developers, flexible space providers, institutional lenders, insurance companies, investment banking firms, investment managers and accounting and consulting firms. Some of these firms may have greater financial resources allocated to a particular geography, property type or service or business line than we have allocated to that geography, property type, service or business line. In addition, future changes in laws could lead to the entry of other new competitors, such as financial institutions.

Some of our competitors are larger than us on a local or regional basis despite having a smaller global footprint. We also compete with large national and multi-national firms that have similar service and investment competencies to ours, and it is possible that further industry consolidation could lead to much larger and more formidable competitors globally or in the particular geographies, property types, service or business lines that we serve. In addition, disruptive innovation by existing or new competitors could alter the competitive landscape in the future and require us to accurately identify and assess such changes and make timely and effective changes to our strategies and business model to compete effectively. Furthermore, we are substantially dependent on long-term client relationships and on revenue received for services under various service agreements. Many of these agreements may be canceled by the client for any reason with as little as 30 to 60 days' notice, as is typical in the industry.

In this competitive market, if we are unable to effectively execute on our strategy and differentiate ourselves from our competitors, maintain long-term client relationships or are otherwise unable to retain existing clients and develop new clients, our business, results of operations and/or financial condition may be materially adversely affected. There is no assurance that we will be able to compete effectively, to maintain current fee levels or margins, or maintain or increase our market share.

Our growth and financial performance have benefited significantly from acquisitions, which may not perform as expected and similar opportunities may not be available in the future.

Acquisitions have accounted for a significant component of our growth over time. Any future growth through acquisitions will depend in part upon the continued availability of suitable acquisition candidates at attractive prices, terms and conditions, as well as sufficient liquidity and credit to fund these acquisitions. We may incur significant additional debt from time to time to finance any such acquisitions, which could increase the risks associated with our leverage, including our ability to service our debt. Acquisitions involve risks that business judgments made concerning the value, strengths and weaknesses of businesses acquired may prove to be incorrect. Future acquisitions and any necessary related financings also may involve significant transaction-related expenses, which could include severance, lease termination, transaction and deferred financing costs, among others.

We have had, and may continue to experience, challenges in integrating operations and information technology systems acquired from other companies. This could result in the diversion of management's attention from other business concerns and the potential loss of our key employees or clients or those of the acquired operations. The integration process itself may be costly and may adversely impact our business and the acquired company's business as it requires coordination of geographically diverse organizations and implementation of accounting and information technology systems.

We complete acquisitions with the expectation that they will result in various benefits, but the anticipated benefits of these acquisitions are subject to a number of uncertainties, including the ability to timely realize accretive benefits, the level of attrition from professionals licensed or associated with the acquired companies and whether we can successfully integrate the acquired business. Failure to achieve these anticipated benefits could result in increased costs, decreases in the amount of expected revenues and diversion of management's time and energy, which could in turn materially and adversely affect our overall business, financial condition and operating results.

Our brand and reputation are key assets of our company, and our business may be affected by how we are perceived in the marketplace.

Our brand and reputation are key assets, and we believe our continued success depends on our ability to preserve, grow and leverage the value of our brand. Our ability to attract and retain clients is highly dependent upon the external perceptions of our level of service, trustworthiness, business practices, management, workplace culture, financial condition, our response to unexpected events and other subjective qualities. Negative perceptions or publicity regarding these matters, even if related to seemingly isolated incidents and whether or not factually correct, could erode trust and confidence and damage our reputation among existing and potential clients, which could make it difficult for us to attract new clients and maintain existing ones. Negative public opinion could result from actual or alleged conduct in any number of activities or circumstances, including handling of complaints, regulatory compliance, such as compliance with government sanctions, the Foreign Corrupt Practices Act (FCPA), the U.K. Bribery Act and other anti-bribery, anti-money laundering and corruption laws, the use and protection of client and other sensitive information and from actions taken by regulators or others in response to such conduct. Furthermore, as a company with headquarters and operations located in the U.S., a negative perception of the U.S. arising from its political or other positions could harm the perception of our company and our brand abroad. Although we monitor developments for areas of potential risk to our reputation and brand, negative perceptions or publicity would materially and adversely affect our revenues and profitability. Social media channels may also cause rapid, widespread reputational harm to our brand. Our brand and reputation may also be harmed by the actions of third parties that are outside of our control, including vendors and joint venture partners.

The protection of our brand, including related trademarks, may require the expenditure of significant financial and operational resources. Moreover, the steps we take to protect our brand may not adequately protect our rights or prevent third parties from infringing or misappropriating our trademarks. Even when we detect infringement or misappropriation of our trademarks, we may not be able to enforce all such trademarks. Any unauthorized use by third parties of our brand may adversely affect our brand. Furthermore, as we continue to expand our business, especially internationally, there is a risk we may face claims of infringement or other alleged violations of third-party intellectual property rights, which may restrict us from leveraging our brand in a manner consistent with our business goals.

Our Real Estate Investments businesses, including our real estate investment programs and co-investment activities, subject us to performance and real estate investment risks which could cause fluctuations in our earnings and cash flow and impact our ability to raise capital for future investments.

The revenue, net income and cash flows generated by our investment management business line within our Real Estate Investments segment may be volatile primarily because the management, transaction and incentive fees may vary as a result of market movements. In the event that any of the investment programs that our investment management business manages were to perform poorly, our revenue, net income and cash flows could decline, because the value of the assets we manage would decrease and thereby reduce our management fees and our investment returns, resulting in a reduction in the incentive compensation we earn. Moreover, we could experience losses on co-investments of our own capital in such programs as a result of poor performance. Investors and potential investors in our programs continually assess our performance, and our ability to raise capital for existing and future programs and maintaining our current fee structure will depend on our continued satisfactory performance.

An important part of the strategy for our Real Estate Investments segment involves co-investing our capital in certain real estate investments with our clients, and there is an inherent risk of loss of our investments. As of December 31, 2023, we had a net investment of approximately $337.0 million and had committed $180.4 million to fund future co-investments in our investment funds, approximately $128.0 million of which is expected to be funded during 2024. In addition to required future capital contributions, some of the co-investment entities may request additional capital from us and our subsidiaries holding investments in those assets. The failure to provide these contributions could have adverse consequences to our interests in these investments, including damage to our reputation with our co-investment partners and clients, as well as the necessity of obtaining alternative funding from other sources that may be on disadvantageous terms for us and the other co-investors. Participating as a co-investor is an important part of our investment management line of business, which might suffer if we were unable to make these investments.

Selective investment in real estate projects is critical to our development services business strategy within our Real Estate Investments segment, and there is an inherent risk of loss of our investments. As of December 31, 2023, we were involved as a principal in 36 real estate projects that were consolidated in our financial statements with invested equity of $526.7 million and co-invested with our clients in approximately 132 unconsolidated real estate projects with a net investment of $358.8 million. We had committed additional capital of $230.1 million and $73.9 million to consolidated and unconsolidated projects, respectively, as of December 31, 2023.

During the ordinary course of business within our development services business line, we provide numerous completion and budget guarantees requiring us to complete 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. There can be no assurance that we will not have to perform under any such guarantees. If we are required to perform under a significant number of such guarantees, it could harm our business, results of operations and financial condition.

Because the disposition of a single significant investment may affect our financial performance in any period, our real estate investment activities could cause fluctuations in our earnings and cash flows. In many cases, we have limited control over the timing of the disposition of these investments and the recognition of any related gain or loss, or incentive participation fee.

The success of our Global Workplace Solutions segment depends on our ability to enter into mutually beneficial contracts, deliver high quality levels of service and accurately assess working capital requirements.

Contracts for our Global Workplace Solutions clients often include complex terms regarding payment of fees, risk transfer, liability limitations, termination, due diligence and transition timeframes. Further, the facilities management and project management businesses within our Global Workplace Solutions segment are often impacted by transition activities in the first year of a contract as well as the timing of starting operations on these large client contracts. If we are unable to negotiate contracts with our clients in a timely manner and on mutually beneficial terms, or there is a delay in becoming fully operational, our business and results of operation may be negatively impacted. Further, if we fail to deliver the high-quality levels of service expected by our clients, it may result in reputational and financial damage, and could impact our ability to retain existing clients and attract new clients.

Our Global Workplace Solutions segment also requires us to accurately model the working capital needs of this business. Should we fail to accurately assess working capital requirements, the cash flows generated by this business may be adversely impacted. In addition, if we do not accurately assess the creditworthiness of a client or if a client's creditworthiness changes during the term of the contract, we could potentially be unable to collect on any outstanding payments.

We have concentrations of business with large clients, which may cause increased credit risk and greater impact from the loss of certain clients and increased risks from higher limitations of liability in contracts.

Having large and concentrated clients may lead to greater or more concentrated risks of loss if, among other possibilities, such a client (i) experiences its own financial problems, which may lead to larger individual credit risks; (ii) becomes bankrupt or insolvent, which may lead to our failure to be paid for services we have previously provided or funds we have previously advanced; (iii) decides to reduce its real estate operations; (iv) makes a change in its real estate strategy; (v) decides to change its providers of real estate services; or (vi) merges with another corporation or otherwise undergoes a change of control, which may result in new management taking over with a different real estate philosophy or in different relationships with other real estate providers. In addition, competitive conditions, particularly in connection with increasingly large clients, may require us to compromise on certain contract terms with respect to the payment of fees, the extent of risk transfer, or acting as principal rather than agent in connection with supplier relationships, liability limitations, credit terms and other contractual

terms, or in connection with disputes or potential litigation. Where competitive pressures result in higher levels of potential liability under our contracts, the cost of operational errors and other activities for which we have indemnified our clients will be greater and may not be fully insured.

A significant portion of our loan origination and servicing business depends upon our relationships with U.S. Government Sponsored Enterprises.

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 (GSEs). 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, including participation in loss sharing and repurchase arrangements. Failure to comply with these requirements may result in termination or withdrawal of our approval to sell and service the GSE loans.

A failure by third parties to comply with service level agreements or regulatory or legal requirements could result in economic and reputational harm to us.

We rely on third parties, and in some cases subcontractors, to perform activities on behalf of our organization to improve quality, increase efficiencies, cut costs and lower operational risks across our business and support functions. We have instituted a Supplier Code of Conduct, which is intended to communicate to our vendors the standards of conduct we expect them to uphold. Our contracts with vendors typically impose a contractual obligation to comply with our Supplier Code of Conduct. In addition, we leverage technology to help us better screen vendors, with the aim of gaining a deeper understanding of the compliance, data privacy, health and safety, environmental, sustainability and other risks posed to our business by potential and existing vendors. If our third parties do not have the proper safeguards and controls in place, or appropriate oversight cannot be provided, we could be exposed to increased operational, regulatory, financial or reputational risks. A failure by third parties to comply with service level agreements or regulatory or legal requirements in a high quality and timely manner could result in economic and reputational harm to us. In addition, these third parties face their own technology, operating, business and economic risks, and any significant failures by them, including the improper use or disclosure of our confidential client, employee or company information, could cause damage to our reputation and harm to our business.

Our success depends upon the retention of our senior management, as well as our ability to attract and retain qualified and experienced employees.

Our continued success is highly dependent upon the efforts of our executive officers and other key employees. While certain of our executive officers and key employees are subject to long-term compensatory arrangements, there is no assurance that we will be able to retain all key members of our senior management. We also are highly dependent upon the retention of our property sales and leasing professionals, who generate a significant amount of our revenues, as well as other revenue producing professionals. The departure of any of our key employees, or the loss of a significant number of key revenue producers, if we are unable to quickly hire and integrate qualified replacements, including diverse talent, could cause our business, financial condition and results of operations to materially suffer. Competition for employee talent is intense and we may not be able to successfully recruit, integrate or retain sufficiently qualified personnel, including diverse talent. In addition, the growth of our business is largely dependent upon our ability to attract and retain qualified personnel in all areas of our business. If we were to experience significant employee attrition or turnover, it could lead to increased recruitment and training costs as well as operating inefficiencies that could adversely impact our results of operation. We and our competitors use equity incentives and sign-on and retention bonuses to help attract, retain and incentivize key personnel. As competition is significant for the services of such personnel, the expense of such incentives and bonuses may increase, which could negatively impact our profitability, or result in our inability to attract or retain such personnel to the same extent that we have in the past. If we are unable to attract and retain these qualified personnel, our growth may be limited, and our business and operating results could materially suffer.

If we are unable to manage the organizational challenges associated with our global operations, we might be unable to achieve our business objectives

Our global operations present significant management and organizational challenges. It might become increasingly difficult to maintain effective standards across a large enterprise and effectively institutionalize our knowledge. It might also become more difficult to maintain our culture, effectively manage and monitor our personnel and operations and effectively communicate our core values, policies and procedures, strategies and goals. The size of our employee base increases the possibility that we will have individuals who engage in unlawful or fraudulent activity, or otherwise expose us to business and reputational risks. If we are not successful in continuing to develop and implement the processes and tools designed to manage our enterprise and instill our culture and core values into all of our employees, our reputation and ability to compete successfully and achieve our business objectives could be impaired. In addition, from time to time, we have made, and may continue to make, changes to our operating model, including how we are organized, as the needs and size of our business change. If we do not successfully implement any such changes, our business and results of operation may be negatively and materially impacted.

Our policies, procedures and programs to safeguard the health, safety and security of our employees and others may not be adequate.

We have approximately 130,000 employees (including Turner & Townsend employees) as well as independent contractors working in over 100 countries. We have undertaken to implement what we believe to be best practices to safeguard the health, safety and security of our employees, independent contractors, clients and others at our worksites. However, if these policies, procedures and programs are not adequate, or employees do not receive related adequate training or follow them for any reason, the consequences may be severe to us, including serious injury or loss of life, which could impair our operations and cause us to incur significant legal liability or fines as well as reputational damage. Our insurance may not cover, or may be insufficient to cover, any legal liability or fines that we incur for health, safety or security incidents.

We may be subject to actual or perceived conflicts of interest.

Similar to other global services companies with different business lines and a broad client base, we may be subject to potential conflicts of interests in the provision of our services. For example, conflicts may arise from our role in advising or representing both owners and tenants in commercial real estate lease transactions. In certain cases, we are also subject to fiduciary obligations to our clients. In such situations, our policies are designed to give full disclosure and transparency to all parties as well as implement appropriate barriers on information-sharing and other activities to ensure each party's interests are protected; however, there can be no assurance that our policies will be successful in every case. If we fail, or appear to fail, to identify, disclose and appropriately address potential conflicts of interest or fiduciary obligations, there could be an adverse effect on our business or reputation regardless of whether any such claims have merit. In addition, it is possible that in some jurisdictions, regulations could be changed to limit our ability to act for certain parties where potential conflicts may exist even with informed consent, which could limit our market share in those markets. There can be no assurance that potential conflicts of interest will not materially adversely affect us.

Infrastructure disruptions, climate change, natural disasters and other events may disrupt our ability to manage real estate for clients or may adversely affect the value of real estate investments we make on behalf of clients.

Our ability to conduct a global business may be adversely impacted by disruptions to the infrastructure that supports our businesses and the communities in which they are located. This may include disruptions as a result of political instability, public health crises, attacks on our information technology systems, war or other hostilities, terrorist attacks, interruptions or delays in services from third-party data center hosting facilities or cloud computing platform providers, employee errors or malfeasance, building defects, utility outages, the effects of climate change and natural disasters such as fires, earthquakes, floods and hurricanes. The infrastructure disruptions we may experience as a result of such events could also disrupt our ability to manage real estate for clients or may adversely affect the value of our real estate investments in our investment management and development services businesses. Furthermore, to the extent climate change causes changes in weather patterns, certain regions where we operate could experience increases in storm intensity, extreme temperatures, rising sea-levels and/or drought. Over time, these conditions could result in declining demand for commercial real estate, decreased value of any real estate investments we hold in those regions or result in increases in our operating costs. The buildings we manage for clients, which include some of the world's largest office properties and retail centers, are used by people daily. We also manage the critical facilities (including data centers) that our clients rely on to serve the public and their customers, where unplanned downtime could potentially disrupt other parts of their businesses or society. As a result, fires, earthquakes, floods, hurricanes, other

natural disasters, building defects, acts of war, terrorist attacks, mass shootings or infrastructure disruptions may result in significant loss of life or injury, and, to the extent we are held to have been negligent in connection with our management of the affected properties, we could incur significant financial liabilities and reputational harm.

Our joint venture activities and affiliate program involve risks that are often outside of our control and that, if realized, could materially harm our business.

We have utilized joint ventures for commercial investments, select local brokerage and other affiliations both in the U.S. and internationally, and we may acquire interests in other joint ventures in the future. Under our affiliate program, we enter into contractual relationships with local brokerage, property management or other operations pursuant to which we license to that operation our name and make available certain of our resources, in exchange for a royalty or economic participation in that operation's revenue, profits or transactional activity. In many of these joint ventures and affiliations, we may not have the right or power to direct the management and policies of the joint ventures or affiliates, and other participants or operators of affiliates may take action contrary to our instructions or requests and against our policies and objectives. In addition, the other participants and operators may become bankrupt or have economic or other business interests or goals that are inconsistent with ours. If a joint venture participant or affiliate acts contrary to our interest, it could harm our brand, business, results of operations and financial condition.

Risks Related to Our Indebtedness

Our debt instruments impose operating and financial restrictions on us, and in the event of a default, all of our borrowings would become immediately due and payable.

As of December 31, 2023, our total debt, excluding notes payable on real estate (which are generally non-recourse to us) and warehouse lines of credit (which are recourse only to our wholly-owned subsidiary, CBRE Capital Markets, and are secured by our related warehouse receivables), was $2.8 billion. For the year ended December 31, 2023, our interest expense was $243.2 million.

Our debt instruments impose, and the terms of any future debt may impose, operating and other restrictions on us and many of our subsidiaries. These restrictions affect, and in many respects limit or prohibit, our ability to:

- plan for or react to market conditions;
- meet capital needs or otherwise restrict our activities or business plans; and
- finance ongoing operations, strategic acquisitions, investments or other capital needs or to engage in other business activities that would be in our interest, including:
  - incurring or guaranteeing additional indebtedness;
  - entering into mergers and consolidations;
  - creating liens; and
  - entering into sale/leaseback transactions.

Our credit agreements require us to maintain a minimum interest coverage ratio of consolidated EBITDA (as defined in the applicable credit agreement) to consolidated interest expense (as defined in the applicable credit agreement) and a maximum leverage ratio of total debt (as defined in the applicable credit agreement) less available cash (as defined in the applicable credit agreement) to consolidated EBITDA as of the end of each fiscal quarter. Our ability to meet these financial ratios may be affected by events beyond our control, and we cannot give assurance that we will be able to meet those ratios when required. We continue to monitor our projected compliance with these financial ratios and other terms of our credit agreements.

A breach of any of these restrictive covenants or the inability to comply with the required financial ratios could result in a default under our debt instruments. If any such default occurs, the lenders under our credit agreements and noteholders with respect to our senior notes may elect to declare all outstanding borrowings, together with accrued interest and other fees, to be immediately due and payable. The lenders under our credit agreements also have the right in these circumstances to terminate any commitments they have to provide further borrowings thereunder. In addition, a default under our credit agreements or senior notes could trigger a cross default or cross acceleration under our other debt instruments.

We have limited restrictions on the amount of additional recourse debt we are able to incur, which may intensify the risks associated with our leverage, including our ability to service our indebtedness. In addition, in the event of a credit-ratings downgrade, our ability to borrow and the costs of such borrowings could be adversely affected.

Subject to the maximum amounts of indebtedness permitted by the covenants under our debt instruments, we are not restricted in the amount of additional recourse debt we are able to incur, and so we may in the future incur such indebtedness in order to finance our operations and investments. In addition, Moody's Investors Service, Inc. and Standard & Poor's Ratings Services, rate our significant outstanding debt. These ratings, and any downgrades of them, may affect our ability to borrow as well as the costs of our current and future borrowings.

Our variable rate indebtedness subjects us to interest rate risk, which could cause our debt service obligations to increase significantly and potentially limit our ability to effectively refinance our indebtedness as it matures.

Borrowings under certain of our debt instruments bear interest at variable rates and expose us to interest rate risk. If interest rates increase, our debt service obligations on the variable rate indebtedness will increase even though the amount borrowed will remain the same, and our net income and operating cash flows, including cash available for servicing our indebtedness, will correspondingly decrease.

Additionally, our ability to refinance portions of our indebtedness in advance of their maturity dates depends on securing new financing bearing interest at rates that we are able to service. While we believe that we currently have adequate cash flows to service the interest rates currently applicable to our indebtedness, if interest rate were to continue to rise significantly, we might be unable to maintain a level of cash flows from operating activities sufficient to meet our debt service obligations at such increased rates.

Risks Related to our Information Technology, Cybersecurity and Data Protection

Failure to maintain and execute information technology strategies and ensure that our employees adapt to changes in technology could materially and adversely affect our ability to remain competitive in the market.

Our business relies heavily on information technology, including solutions provided by third parties, to deliver services that meet the needs of our clients. If we are unable to effectively execute or maintain our information technology strategies or adopt new technologies and processes relevant to our service platform, our ability to deliver high-quality services may be materially impaired. In addition, we make significant investments in new systems and tools to achieve competitive advantages and efficiencies. Implementation of such investments in information technology could exceed estimated budgets and we may experience challenges that prevent new strategies or technologies from being realized according to anticipated schedules. If we are unable to maintain current information technology and processes or encounter delays, or fail to exploit new technologies, then the execution of our business plans may be disrupted. Similarly, our employees require effective tools, technologies and techniques to perform functions integral to our business. Failure to successfully provide such items, or ensure that employees have properly adopted them, could materially and adversely impact our ability to achieve positive business outcomes.

Interruption or failure of our information technology, communications systems or data services could impair our ability to provide our services effectively, which could damage our reputation and materially harm our operating results.

Our business requires the continued operation of information technology and communication systems and network infrastructure. Our ability to conduct our global business may be materially adversely affected by disruptions to these systems or our infrastructure. Our information technology and communications systems are vulnerable to damage or disruption from fire, power loss, telecommunications failure, system malfunctions, computer viruses, cyberattacks, natural disasters such as hurricanes, earthquakes and floods, acts of war or terrorism, employee errors or malfeasance, or other events which are beyond our control. Cyberattacks and malware pose growing threats to many companies, and we, as well as our third-party service providers, have been a target and may continue to be a target of such threats, which could expose us to liability, reputational harm and significant remediation costs and cause material harm to our business and financial results. In addition, the operation and maintenance of these systems and networks is in some cases dependent on third-party technologies, systems and service providers for which there is no certainty of uninterrupted availability. Any of these events could cause system interruption, delays and loss, corruption or exposure of data or intellectual property and may also disrupt our ability to provide services to or interact with our clients, contractors and vendors, and we may not be able to successfully implement contingency plans. Furthermore, while we have certain business interruption and cyber insurance coverage and various contractual arrangements

that can serve to mitigate costs, damages and liabilities, any such event could result in substantial recovery and remediation costs and liability to customers, business partners and other third parties. We have crisis management, business continuity and disaster recovery plans and backup systems to reduce the potentially adverse effect of such events, but our disaster recovery planning may not be sufficient and cannot account for all eventualities, and a catastrophic event that results in the destruction or disruption of any of our data centers and third-party cloud hosting providers or our critical business or information technology systems could severely affect our ability to conduct normal business operations, and as a result, our future operating results could be materially adversely affected.

Our business relies heavily on the use of commercial real estate data. A portion of this data is purchased or licensed from third-party providers for which there is no certainty of uninterrupted availability or accuracy. A disruption of our ability to provide data to our professionals and/or our clients or an inadvertent exposure of proprietary data could damage our reputation and competitive position, and our operating results could be adversely affected.

Failure to maintain the security of our information and technology networks, including personal information and other client information, intellectual property and proprietary business information could materially adversely affect us.

Security breaches and other disruptions of our information and technology networks, as well as that of third-party vendors, could compromise our information and intellectual property and expose us to liability, reputational harm and significant remediation costs, which could cause material harm to our business and financial results. In the ordinary course of our business, we collect and store confidential data, including our proprietary business information and intellectual property, and that of our clients and personal information (also referred to as "personal data" or "personally identifiable information") of our employees, contractors and vendors, in our data centers, networks and third-party cloud hosting providers. The secure collection, use, storage, retention, maintenance, sharing, processing, transfer, transmission, disclosure, and protection (collectively, "Processing") of this information is critical to our operations. Although we and our vendors continue to implement new security measures and regularly conduct employee training, our information technology and infrastructure may nevertheless be vulnerable to cyberattacks by third parties or breached due to employee error, malfeasance or other disruptions. These risks have been heightened in connection with the ongoing conflict between Russia and Ukraine and we cannot be certain how this new risk landscape will impact our operations. When geopolitical conflicts develop, critical infrastructures may be targeted by state-sponsored cyberattacks even if they are not directly involved in the conflict. An increasing number of companies that rely on information and technology networks have disclosed breaches of their security, some of which have involved sophisticated and highly targeted attacks on portions of their websites or infrastructure. The techniques used to obtain unauthorized access, disable, or degrade service, or sabotage systems, change frequently, may be difficult to detect, and often are not recognized until launched against a target. To date, we have not experienced any cybersecurity breaches that have been material, either individually or in the aggregate. However, there can be no assurance that we will be able to prevent any material events from occurring in the future.

Our business is subject to complex and evolving United States and international laws and regulations regarding privacy, data protection, and cybersecurity. Many of these laws and regulations are subject to change and uncertain interpretation and could result in claims, increased cost of operations or otherwise harm our business.

We are subject to numerous United States federal, state, local, and international laws and regulations regarding privacy, data protection and cybersecurity that govern the processing of certain data (including personal information, sensitive information, health information, and other regulated data). These laws and regulations are increasing in severity, complexity and number, change frequently, and increasingly conflict among the various jurisdictions in which we operate, which has resulted in greater compliance risk and cost for us.

In addition, we are also subject to the possibility of security breaches and other incidents, which themselves may result in a violation of these laws. For example, the European Union General Data Protection Regulation (GDPR) became effective on May 25, 2018, and has resulted and will continue to result in significantly greater compliance burdens and costs for businesses established in the European Union (EU) or European Economic Area (EEA) or who are established outside the EU or EEA and offer goods or services, or monitor the behavior of individuals located in the EU or EEA, including with respect to cross-border transfers of personal information. Under GDPR, fines of up to 20 million Euros or up to 4% of the annual global revenues of the infringer, whichever is greater, may be imposed for violations. Further, the U.K.'s withdrawal from the EU and ongoing developments in the U.K. have created additional compliance obligations and some uncertainty regarding whether data protection regulation in the U.K. will further diverge from the GDPR. As of December 31, 2023, we are required to comply with the GDPR as well as the U.K. equivalent and other global data protection laws (including in Switzerland, Japan,

Singapore, China, United Arab Emirates, Australia, and Brazil), the implementation of which exposes us to parallel data protection regimes, each of which potentially authorizes similar fines and other enforcement actions for certain violations.

In the U.S., the California Consumer Privacy Act of 2018 (as amended by the California Privacy Rights Act of 2020) broadly defines personal information, gives California residents expanded privacy rights and protections, and provides for civil penalties for certain violations, and established a regulatory agency dedicated to enforcing those requirements. At least a dozen states including Colorado, Connecticut, Texas and Virginia, have also passed comprehensive privacy laws protecting residents acting in their individual or household capacities, and several states, most notably Illinois, have passed laws regulating the processing of biometric information. These state laws impose additional obligations and requirements on impacted businesses.

We are also subject to an increasing number of reporting obligations in respect of material cybersecurity incidents. These reporting requirements have been proposed or implemented by a number of regulators in different jurisdictions, may vary in their scope and application, and could contain conflicting requirements. Certain of these rules and regulations may require us to report a cybersecurity incident before we have been able to fully assess its impact or remediate the underlying issue. Efforts to comply with such reporting requirements could divert management's attention from our cybersecurity incident response and could potentially reveal system vulnerabilities to threat actors. Failure to timely report cybersecurity incidents under these rules could also result in regulatory investigations, litigation, monetary fines, sanctions, or subject us to other forms of liability.

A significant actual or potential theft, loss, corruption, exposure, fraudulent use or misuse of client, employee or other personal information or proprietary business data, whether by third parties or as a result of employee malfeasance or otherwise, perceived or actual non-compliance with our contractual or other legal obligations regarding such data or intellectual property or a violation of our privacy and security policies with respect to such data could result in significant remediation and other costs, fines, litigation or regulatory actions against us. Such an event could additionally disrupt our operations and the services we provide to clients, harm our relationships with contractors and vendors, damage our reputation, result in the loss of a competitive advantage, impact our ability to provide timely and accurate financial data and cause a loss of confidence in our services and financial reporting, which could adversely affect our business, revenues, competitive position and investor confidence. Additionally, we rely on third parties to support our information and technology networks, including cloud storage solution providers, and as a result have less direct control over our data and information technology systems. Such third parties are also vulnerable to security breaches and compromised security systems, for which we may not be indemnified and which could materially adversely affect us and our reputation.

Legal and Regulatory Related Risks

We are subject to various litigation and regulatory risks and may face financial liabilities and/or damage to our reputation as a result of litigation or regulatory investigations or proceedings.

Our businesses are exposed to various litigation and regulatory risks, especially within our valuations business. Although we maintain insurance coverage for most of this risk, insurance coverage is unavailable at commercially reasonable pricing for certain types of exposures. Additionally, our insurance policies may not cover us in the event of grossly negligent or intentionally wrongful conduct. Accordingly, an adverse result in a litigation against us, or a lawsuit that results in a substantial legal liability for us (and particularly a lawsuit that is not insured), could have a disproportionate and material adverse effect on our business, financial condition and results of operations. Furthermore, an adverse result in regulatory proceedings, if applicable, could result in fines or other liabilities or adversely impact our operations. Prolonged or complex investigations, even if they do not result in regulatory or other proceedings or adverse findings, may result in significant costs that may not be covered by insurance and in diversion of employee resources. In addition, we depend on our business relationships and our reputation for high-caliber professional services to attract and retain clients. As a result, allegations against us, or the announcement of a regulatory investigation involving us, irrespective of the ultimate outcome of that allegation or investigation, may harm our professional reputation and as such materially damage our business and its prospects.

Our businesses, financial condition, results of operations and prospects could be adversely affected by new laws or regulations or by changes in existing laws or regulations or the application thereof. If we fail to comply with laws and regulations applicable to us, or make incorrect determinations in complex tax regimes, we may incur material financial penalties.

We are subject to numerous federal, state, local and non-U.S. laws and regulations specific to the services we perform in our business. Brokerage of real estate sales and leasing transactions and the provision of property management and valuation services require us and our employees to maintain applicable licenses in each U.S. state and certain non-U.S. jurisdictions in

which we perform these services. If we and our employees fail to maintain our licenses or conduct these activities without a license, or violate any of the regulations covering our licenses, we may be required to pay fines (including treble damages in certain states) or return commissions received or have our licenses suspended or revoked. A number of our services, including the services provided by our indirect wholly-owned subsidiaries, CBRE Capital Markets and CBRE Investment Management, are subject to regulation by the Securities and Exchange Commission (SEC), Financial Industry Regulatory Authority (FINRA), or other self-regulatory organizations and state securities regulators and compliance failures or regulatory action could adversely affect our business. We could be subject to disciplinary or other actions in the future due to claimed noncompliance with these regulations, which could have a material adverse effect on our operations and profitability.

We are also subject to laws of broader applicability, such as tax, securities, environmental, employment laws and anti-bribery, anti-money laundering and corruption laws, including the Fair Labor Standards Act, occupational health and safety regulations, U.S. state wage-and-hour laws, the U.S. FCPA and the U.K. Bribery Act. Failure to comply with these requirements could result in the imposition of significant fines by governmental authorities, awards of damages to private litigants and significant amounts paid in legal fees or settlements of these matters.

Telford Homes, our residential development subsidiary in the U.K., is subject to certain U.K. laws and requirements that obligates U.K. homebuilders to remediate or fund the remediation work relating to certain fire-safety issues on their constructed buildings. The aggregate costs and liabilities related to these remediations are uncertain and may be material. In the event Telford Homes is unable to satisfy its obligations and liabilities under such government requirements and U.K. laws, Telford Homes and potentially its affiliates could face material business interruption, litigation, liabilities and reputational damage.

As the size and scope of our business has increased significantly, compliance with numerous licensing and other regulatory requirements and the possible loss resulting from non-compliance have both increased. New or revised legislation or regulations applicable to our business, both within and outside of the U.S., as well as changes in administrations or enforcement priorities may have an adverse effect on our business, including increasing the costs of regulatory compliance or preventing us from providing certain types of services in certain jurisdictions or in connection with certain transactions or clients. We are unable to predict how any of these new laws, rules, regulations and proposals will be implemented or in what form, or whether any additional or similar changes to laws or regulations, including the interpretation or implementation thereof, will occur in the future. Any such action could affect us in substantial and unpredictable ways and could have an adverse effect on our businesses, financial condition, results of operations and prospects.

Our business is subject to evolving corporate governance and public disclosure regulations and expectations, including with respect to environmental, social and governance (ESG) matters, that could expose us to numerous risks.

Recently, there has been heightened interest from advocacy groups, government agencies and the general public in ESG matters and increasingly regulators, customers, investors, employees and other stakeholders are focusing on ESG matters and related disclosures. Such governmental, investor and societal attention to ESG matters, including expanding mandatory and voluntary reporting, diligence, and disclosure on topics such as climate change, human capital, labor and risk oversight, could expand the nature, scope, and complexity of matters that we are required to control, assess and report.

We are subject to changing rules and regulations promulgated by a number of governmental and self-regulatory organizations, including the SEC, the New York Stock Exchange and the Financial Accounting Standards Board. Further, new and emerging regulatory initiatives in the U.S., EU and U.K. related to climate change and ESG could adversely affect our business, including, for example, initiatives such as the European Commission's May 2018 "action plan on financing sustainable growth" and Taskforce on Climate-related Financial Disclosures (TCFD)-aligned disclosure requirements in the U.K. These and other rules and regulations continue to evolve in scope and complexity and many new requirements have been created in response to laws enacted by the U.S. congress, making compliance more difficult and uncertain. These changing rules, regulations and stakeholder expectations have resulted in, and are likely to continue to result in, increased general and administrative expenses and increased management time and attention spent complying with or meeting such regulations and expectations. For example, developing and acting on new or ongoing initiatives within the scope of ESG, and collecting, measuring and reporting ESG related information and metrics may be costly, difficult and time consuming and subject to evolving reporting standards, including the SEC's proposed climate-related reporting requirements, California's Climate Corporate Data Accountability Act and Greenhouse Gases: Climate-related Financial Risk Act, and similar proposals by other international regulatory bodies. Further, we may choose to communicate certain initiatives and goals, regarding environmental matters, diversity, responsible sourcing and social investments and other ESG related matters, in our SEC filings or in other public disclosures. These initiatives and goals within the scope of ESG could be difficult and expensive to implement and we

could be criticized for the accuracy, adequacy or completeness of the disclosure. Statements about our ESG related initiatives and goals, and progress against those goals, may be based on standards for measuring progress that are still developing, internal controls and processes that continue to evolve, and assumptions that are subject to change in the future. We could also be criticized for the scope or nature of such initiatives or goals, or for any revisions thereto. If we are unable to adequately address such ESG matters or if we fail to achieve progress with respect to our goals within the scope of ESG on a timely basis, or at all, or if we or our borrowers fail or are perceived to fail to comply with all laws, regulations, policies and related interpretations, it could negatively impact our reputation and our business results.

Exposure to additional tax liabilities and changes in tax laws and regulations could adversely affect our financial results.

We operate in many jurisdictions with complex and varied tax regimes and are subject to different forms of taxation resulting in a variable effective tax rate. Due to the different tax laws in the many jurisdictions where we operate, we are often required to make subjective determinations. The tax authorities in the various jurisdictions where we carry on business may not agree with the determinations that are made by us with respect to the application of tax law. Such disagreements could result in disputes and, ultimately, in the payment of additional funds to the government authorities in the jurisdictions where we carry on business, which could have an adverse effect on our results of operations. In addition, changes in tax rules or the outcome of tax assessments and audits could have an adverse effect on our results in any particular quarter.

In addition, changes in tax laws or regulations and multi-jurisdictional changes enacted in response to the action items provided by the Organization for Economic Co-operation and Development (OECD) increase tax uncertainty and could impact the company's effective tax rate and provision for income taxes. Given the unpredictability of possible further changes to and the potential interdependency of the United States or foreign tax laws and regulations, it is difficult to predict the cumulative effect of such tax laws and regulations on the company's results of operations.

We may be subject to environmental liability as a result of our role as a property or facility manager or developer of real estate.

Various laws and regulations impose liability on real property owners or operators for the cost of investigating, cleaning up or removing contamination caused by hazardous or toxic substances at a property. In our role as a property or facility manager or developer, we could be held liable as an operator for such costs. This liability may be imposed without regard to the legality of the original actions and without regard to whether we knew of, or were responsible for, the presence of the hazardous or toxic substances. If we fail to disclose environmental issues, we could also be liable to a buyer or lessee of a property. If we incur any such liability, our business could suffer significantly as it could be difficult for us to develop or sell such properties, or borrow funds using such properties as collateral. In the event of a substantial liability, our insurance coverage might be insufficient to pay the full damages, or the scope of available coverage may not cover certain of these liabilities. Additionally, liabilities incurred to comply with more stringent future environmental requirements could adversely affect any or all of our lines of business.

Risks Related to our Internal Controls and Accounting Policies

If we are unable to maintain effective internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports and our results of operations and stock price could be materially adversely affected.

The accuracy of our financial reporting is dependent on the effectiveness of our internal controls. Internal control over financial reporting has inherent limitations, including human error, the possibility that controls could be circumvented or become inadequate because of changed conditions, and fraud. Because of these inherent limitations, internal control over financial reporting might not prevent or detect all misstatements or fraud. If we cannot maintain and execute adequate internal control over financial reporting or implement required new or improved controls that provide reasonable assurance of the reliability of the financial reporting and preparation of our financial statements for external use, we could suffer harm to our reputation, incur incremental compliance costs, fail to meet our public reporting requirements on a timely basis, be unable to properly report on our business and our results of operations, or be required to restate our financial statements, and our results of operations, our stock price and our ability to obtain new business could be materially adversely affected.

Our goodwill and other intangible assets could become impaired, which may require us to take material non-cash charges against earnings.

Under current accounting guidelines, we must assess, at least annually and potentially more frequently, whether the value of our goodwill and other intangible assets has been impaired. Any impairment of goodwill or other intangible assets as a result of such analysis would result in a non-cash charge against earnings, and such charge could materially adversely affect our reported results of operations, stockholders' equity and our stock price. A significant and sustained decline in our future cash flows, a significant adverse change in the economic environment, slower growth rates or if our stock price falls below our net book value per share for a sustained period, could result in the need to perform additional impairment analysis in future periods. If we were to conclude that a future write-down of goodwill or other intangible assets is necessary, then we would record such additional charges, which could materially adversely affect our results of operations.

Risks Related to our Investments

We have equity investments in certain companies or projects that we do not control, which subject us to risks related to their respective businesses.

As of December 31, 2023, we had over $1.5 billion invested in certain companies and projects that we do not control that were accounted for under the cost/measurement alternative method of accounting, equity method or fair value. These investments are subject to risks related to the businesses in which we invest, which may be different than the risks inherent in our own business. Factors beyond our control may significantly influence the value of these investments and may cause their fair value to decrease or adversely impact our ability to recognize a gain on such investments. These factors include decisions made by management or controlling stockholders of such businesses, who may have interests different than those of CBRE, and instability in the capital markets. Any of these factors, among others, could cause an impairment, realized and/or unrealized losses in future periods, which could have an adverse effect on our financial condition and results of operations. In the future, we may acquire more equity investments that are not consolidated, which could increase our exposure to the risks described above.

Item 1B. Unresolved Staff Comments.

None.

Item 1C. Cybersecurity.

Risk Management and Strategy

We recognize the importance of developing, implementing and maintaining cybersecurity measures to safeguard our information systems and protect the confidentiality, integrity, and availability of data. We have integrated cybersecurity risk management into our broader risk management framework. Our risk management team works with our digital & technology organization to evaluate and address cybersecurity risks in alignment with our business objectives and operational needs.

Our cybersecurity program is focused on the following areas:

- Governance: We leverage multiple cybersecurity frameworks (e.g., ISO 27001 and NIST CSF) and regulatory requirements to form our Information Security Management System (ISMS), which is defined through policies and standards. Policies are applicable to all employees globally. These policies are reviewed periodically to ensure they remain relevant. For additional information regarding governance of our cybersecurity program, see the sections below entitled "Board Oversight of Cybersecurity Risks" and "Management's Role in Assessing and Managing Cybersecurity Risks."
- Technical Safeguards: We deploy technical and procedural measures to protect our technology and data. Protection measures include network firewalls, network intrusion detection and prevention, penetration testing, vulnerability assessments and remediation processes, threat intelligence, anti-malware and access controls, plus data loss prevention and monitoring.
- Security Awareness / Training: All employees are required to adhere to our Standards of Business Conduct, which identifies an employee's responsibility for information security. We provide annual cybersecurity training for all employees, as well as enhanced role-specific information security training for certain employees. In addition to this training, security awareness articles are disseminated periodically throughout the year. We also sponsor a "Cyber Security Awareness Month" in October each year and conduct regular phishing detection and response exercises.
- Incident Response Plans: We maintain and update incident response plans that address the life cycle of a cyber-incident and routinely evaluate the effectiveness of such plans. Incident response plans focus on cyber risk issues, including detection, response and recovery; cyber threats, with a focus on external communication and legal compliance; and breach simulations and penetration testing through internal and external exercises. Each year, we engage a third-party expert to oversee a cybersecurity incident response exercise to test pre-planned response actions from our incident response plan and to facilitate group discussions regarding the effectiveness of our cybersecurity incident response strategies and tactics.
- Third-Party Suppliers and Service Providers: We conduct periodic vendor security reviews and risk assessments for prospective and current third-party technical suppliers and service providers. Vendor security reviews evaluate numerous key security controls and the outputs of these reviews are used as part of business decisions regarding procurement and to assess a vendor's overall security posture relative to a defined set of security criteria.
- Certifications: Our security program is audited on an annual basis by several independent groups including an accredited certification body, leading accounting firms and institutional clients.
- Experts: We engage a range of external experts, including cybersecurity assessors, consultants, and auditors in evaluating and testing our cybersecurity program. Our collaboration with these third-parties includes periodic audits, threat assessments and consultation on security enhancements.

Risks from Cybersecurity Threats

While we are subject to ongoing cybersecurity threats, we do not believe that the risks from these threats have materially affected, or are reasonably likely to materially affect the company, including our business strategy, results of operations or financial condition. For additional information regarding risks from cybersecurity threats, see "Item 1A. Risk Factors—Risks Related to our Information Technology, Cybersecurity and Data Protection" in this Annual Report.

Board Oversight of Cybersecurity Risks

Our Board of Directors (Board) is responsible for the oversight of our risk management program and regularly reviews information regarding our most significant strategic, operational, financial, legal and compliance risks, including cybersecurity risks. The Board delegates its oversight of cybersecurity risks to the Audit Committee; however, the Board reviews risks and mitigation plans through direct presentations and discussions with management as well as through receipt of committee chair reports at each regularly scheduled Board meeting.

The Audit Committee is responsible for evaluating and overseeing the management of risks related to information technology, which includes cybersecurity and data security risks. The Audit Committee receives quarterly reports from our Chief Information Security Officer (CISO) regarding cybersecurity and data security matters and related risk exposures. The Audit Committee Chair regularly updates the Board on such matters and the Board also periodically receives reports from management directly. Our Board escalation protocols require material cybersecurity incidents or data breaches to be reported to the Board on a real-time basis.

Management's Role in Assessing and Managing Cybersecurity Risks

Our CISO is responsible for setting the strategy and communicating cybersecurity risks. Our CISO's team is also responsible for defining policies, standards, architecture and processes for cybersecurity globally. With over 28 years of experience in the field of cybersecurity, our CISO brings a wealth of expertise to his role. His background includes extensive experience as an enterprise CISO.

Our CISO, in conjunction with other digital & technology leaders, implement and oversee processes for the regular monitoring of our information systems. This includes escalation protocols to identify, assess and escalate cyber incidents. We also deploy security measures and regular system audits to identify potential vulnerabilities. In the event of a cybersecurity incident, our CISO is equipped with a defined incident response plan. Our CISO meets quarterly with our risk management team and provides quarterly reports to the Audit Committee.

Item 2. Properties.

As of December 31, 2023, we occupied offices, excluding affiliates, in the following geographical regions:

	Sales Offices[1]	Corporate Offices	Total
Americas	258	1	259
Europe, Middle East and Africa (EMEA)	257	1	258
Asia Pacific	160	1	161
Total	675	3	678

(1) Includes 124 offices of Turner & Townsend, including 36 in the Americas, 58 in EMEA, and 30 offices in APAC regions.

Some of our offices house employees from more than one of our business segments (i.e. an office might house employees from all three of our business segments). As such, we have provided the above office totals by geographic region rather than by business segment in order to avoid double counting or triple counting our offices.

We do not own any material real property and generally lease our office space and believe it is adequate for our current needs. The most significant terms of the leasing arrangements for our offices are the length of the lease and rent. Our leases have terms varying in duration. The rent payable under our office leases varies significantly from location to location as a result of differences in prevailing commercial real estate rates in different geographic areas. Our management believes that no single office lease is material to our business, results of operations or financial condition. In addition, we believe there is adequate alternative office space available at acceptable rental rates to meet our needs, although adverse movements in rental rates in some markets may negatively affect our profits in those markets when we enter into new leases.

Item 3. Legal Proceedings.

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 consolidated financial statements are unlikely to be significant, but litigation is inherently uncertain and there is the potential for a material adverse effect on our consolidated financial statements if one or more matters are resolved in a particular period in an amount materially in excess of what we anticipated.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Stock Price Information

Our Class A common stock has traded on the NYSE under the symbol "CBRE" since March 19, 2018. Prior to that, from June 10, 2004 to March 18, 2018, our Class A common stock traded on the NYSE under the symbol "CBG."

As of February 15, 2024, there were 44 stockholders of record of our Class A common stock. This figure does not include beneficial owners who hold shares in nominee name.

Dividend Policy

We have not declared or paid any cash dividends on any class of our common stock since our inception on February 20, 2001. Any future determination to pay cash dividends will be at the discretion of our board of directors and will depend on our financial condition, acquisition or other opportunities to invest capital, results of operations, capital requirements and other factors that the board of directors deems relevant.

Recent Sales of Unregistered Securities

None.

Issuer Purchases of Equity Securities

Open market share repurchase activity during the three months ended December 31, 2023 was as follows (dollars in millions, 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]
October 1, 2023 - October 31, 2023	204,786	$ 68.36	204,786	
November 1, 2023 - November 30, 2023	80,468	69.51	80,468	
December 1, 2023 - December 31, 2023	—	—	—	
	285,254	$ 68.69	285,254	$ 1,466

[1] In November 2021, our board of directors authorized a program for the company to repurchase up to $2.0 billion of our Class A common stock over five years, effective November 19, 2021 (the 2021 program). In August 2022, our board of directors authorized an additional $2.0 billion under this program, bringing the total authorized amount under the 2021 program to a total of $4.0 billion. During the fourth quarter of 2023, we repurchased an aggregate of $19.6 million of our common stock under the 2021 program. The remaining $1.5 billion in the table represents the amount available to repurchase shares under the 2021 program as of December 31, 2023.

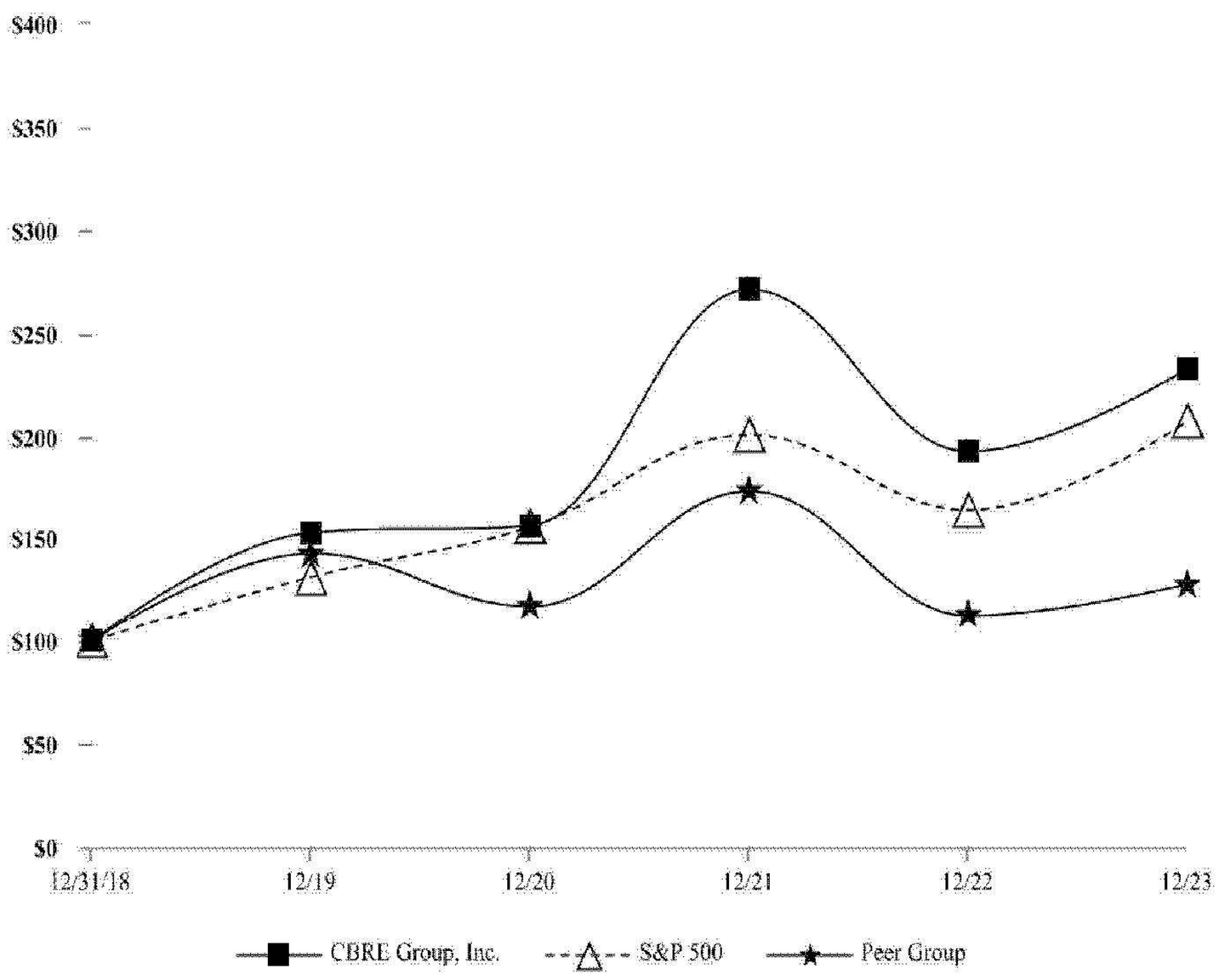
Our stock repurchase program does not obligate us to acquire any specific number of shares. Under this program, shares may be repurchased in privately negotiated and/or open market transactions, including under plans complying with Rule 10b5-1 under the Exchange Act. Our stock repurchases have been funded with cash on hand and we intend to continue funding future repurchases with existing cash. We may utilize our stock repurchase programs 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 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.

Stock Performance Graph

The graph below matches the 5 Year Cumulative Total Return of holders of CBRE Group, Inc.'s common stock with the cumulative total returns of the S&P 500 Index and a customized peer group of eight companies that includes: JLL, a global commercial real estate services company publicly traded in the U.S., as well as the following companies that have significant commercial real estate or real estate capital markets businesses within the U.S. or globally, that in each case are publicly traded in the U.S. or abroad: Colliers International Group Inc. (CIGI), Cushman & Wakefield plc (CWK), ISS A/S (ISS), Marcus & Millichap, Inc. (MMI), Newmark Group Inc. (NMRK), Savills plc (SVS.L), and Walker & Dunlop, Inc. (WD). These companies are or include divisions with business lines reasonably comparable to some or all of ours, and which represent our current primary competitors.

The graph assumes that the value of the investment in our common stock, in each index, and in the peer group (including reinvestment of dividends) was $100 on December 31, 2018 and tracks it through December 31, 2023. Our stock price performance shown in the graph below is not necessarily indicative of future stock price performance.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN[1]
AMONG CBRE GROUP, INC., THE S&P 500 INDEX [2],
AND PEER GROUP



	12/31/18	12/19	12/20	12/21	12/22	12/23
CBRE Group, Inc.	$ 100.00	$ 153.07	$ 156.64	$ 271.00	$ 192.21	$ 232.49
S&P 500	100.00	131.49	155.68	200.37	164.08	207.21
Peer Group	100.00	142.68	117.35	172.95	112.48	127.72

(1) $100 invested on December 31, 2018 in stock or index-including reinvestment of dividends. Fiscal year ending December 31.

(2) Copyright© 2024 Standard & Poor's, a division of S&P Global. All rights reserved.

This graph shall not be deemed incorporated by reference by any general statement incorporating by reference this Annual Report into any filing under the Securities Act or the Exchange Act, except to the extent that we specifically incorporate this information by reference therein, and shall not otherwise be deemed filed under the Securities Act or the Exchange Act.

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion provides an analysis of the company's financial condition and results of operations from management's perspective and should be read in conjunction with the consolidated financial statements and related notes included in this Annual Report. Discussion regarding our financial condition and results of operations for the year ended December 31, 2022 and comparisons between the years ended December 31, 2022 and 2021 are included in Part II, Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the company's 2022 Annual Report filed with the SEC on February 27, 2023.

Overview

CBRE is the world's largest commercial real estate services and investment firm (based on 2023 revenue). We serve clients through three business segments – Advisory Services, Global Workplace Solutions (GWS) and Real Estate Investments (REI) – which are described in "Item 1. Business." We generate revenue from both stable, resilient sources (large multi-year portfolio and per-project contracts) and non-recurring sources, including commissions on transactions. Our revenue mix has become more weighted towards resilient revenue sources, particularly occupier outsourcing, and our dependence on cyclical property sales and lease transaction revenue has declined. Transactional revenue and earnings within our Advisory Services segment (notably property sales and leasing) have historically been highest in the year's fourth quarter due to the focus on completing transactions prior to year-end. However, our consolidated results have become less seasonal in recent years, as our reliance on transactional revenue has decreased.

Business Environment

The operating environment for commercial real estate was significantly challenged in 2023. Markedly higher borrowing and constricted capital availability, particularly following the regional bank failures in March, depressed commercial real estate investment and financing and inhibited our ability to harvest gains from our real estate development and investment management portfolios. Real estate leasing markets were negatively impacted by economic uncertainty and the slow progress of company return-to-office plans, which resulted in reduced office demand, higher space availability and generally lower market rents. Demand for industrial space was firmer but down from record levels of recent years and an increase in new construction pushed up vacancy rates. Persistent inflation across the economy also required us to increase compensation expense to retain top talent and our development businesses incurred higher input costs for construction materials. On the other hand, we believe that contractual provisions in some parts of our business provide some protection against inflation.

Results of Operations

The following presents highlights of CBRE's performance for the year ended December 31, 2023:

Revenue
$31.9B
3.6%

Net Revenue [1]
$18.3B
(2.7)%

GAAP Net Income
$986M
(30.0)%

Core EBITDA [1]
$2.2B
(24.5)%

GAAP Earnings Per Share (EPS)
$3.15
(26.6)%

Core EPS [1]
$3.84
(32.5)%

The real estate capital markets environment weighed on our business performance in 2023, particularly the transactional business lines within Advisory Services and Real Estate Investments segments, which are sensitive to market cycles. While overall net revenue fell 3%, our resilient business lines (including the entire GWS business, property management, loan servicing, asset management fees and valuations), together, grew net revenue at a 10% clip[1]. These business lines are well-positioned for growth across market cycles. On the other hand, revenue from the transactional components of our business (sales, leasing, mortgage origination, carried interest and incentive and development fees) slumped 21% last year, but are poised to resume strong growth when the market cycle turns.

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[1] See Non-GAAP Financial Measures section in Item 7 of this Annual Report.

Despite the year's challenges, we invested approximately $961.3 million in share buybacks (repurchasing approximately7,867,348 shares), infill M&A and other strategic investments, while ending the year below the midpoint of our target leverage range, giving us substantial liquidity to finance future growth.

The following table sets forth items derived from our consolidated statements of operations for the years ended December 31, 2023 and 2022 (dollars in millions):

	Year Ended December 31,			
	2023		2022	
Revenue:				
Net revenue:				
Facilities management	$ 5,806	18.2 %	$ 5,137	16.7 %
Property management	1,840	5.8 %	1,777	5.8 %
Project management	3,124	9.8 %	2,735	8.9 %
Valuation	716	2.2 %	765	2.5 %
Loan servicing	317	1.0 %	311	1.0 %
Advisory leasing	3,503	11.0 %	3,872	12.6 %
Capital markets:				
Advisory sales	1,611	5.0 %	2,523	8.2 %
Commercial mortgage origination	424	1.3 %	563	1.8 %
Investment management	592	1.9 %	595	1.9 %
Development services	360	1.1 %	515	1.7 %
Corporate, other and eliminations	(17)	(0.1)%	(16)	(0.1)%
Total net revenue	18,276	57.2 %	18,777	60.9 %
Pass through costs also recognized as revenue	13,673	42.8 %	12,051	39.1 %
Total revenue	31,949	100.0 %	30,828	100.0 %
Costs and expenses:				
Cost of revenue	25,675	80.4 %	24,239	78.6 %
Operating, administrative and other	4,562	14.3 %	4,649	15.1 %
Depreciation and amortization	622	1.9 %	613	2.0 %
Asset impairments	—	0.0 %	59	0.2 %
Total costs and expenses	30,859	96.6 %	29,560	95.9 %
Gain on disposition of real estate	27	0.1 %	244	0.8 %
Operating income	1,117	3.5 %	1,512	4.9 %
Equity income from unconsolidated subsidiaries	248	0.8 %	229	0.7 %
Other income (loss)	61	0.2 %	(12)	0.0 %
Interest expense, net of interest income	149	0.5 %	69	0.2 %
Write-off of financing costs on extinguished debt	—	0.0 %	2	0.0 %
Income before provision for income taxes	1,277	4.0 %	1,658	5.4 %
Provision for income taxes	250	0.8 %	234	0.8 %
Net income	1,027	3.2 %	1,424	4.6 %
Less: Net income attributable to non-controlling interests	41	0.1 %	17	0.1 %
Net income attributable to CBRE Group, Inc.	$ 986	3.1 %	$ 1,407	4.6 %

Year Ended December 31, 2023 Compared to Year Ended December 31, 2022

We reported consolidated net income of $985.7 million for the year ended December 31, 2023 on revenue of $31.9 billion as compared to consolidated net income of $1.4 billion on revenue of $30.8 billion for the year ended December 31, 2022.

Revenue rose by $1.1 billion, or 3.6%, for the year, led by a 13.4% increase in the GWS segment, which benefited from new client wins, contract expansions, and in-fill acquisitions. Advisory Services segment revenue decreased by 14.0%, as macroeconomic uncertainty and high interest rates, curbed property leasing, sales and financing activity. These economic conditions also impacted the timing and value of asset and fund monetization in the REI segment, where revenue declined 14.2%. Foreign currency translation was a 0.5% drag on revenue, reflecting weakness in the Canadian dollar, Argentina peso and Australian dollar, partially offset by strength in the euro.

Cost of revenue increased by $1.4 billion, or 5.9%, during the year, due to higher costs associated with our GWS segment given the growth. Cost of revenue declined in our Advisory Services and REI segments, reflecting the variable nature of much of these segments' costs. Foreign currency translation had a 0.5% benefit to total costs. Cost of revenue as a percentage of revenue increased to 80.4% in 2023 as compared to 78.6% in 2022, largely due to a shift in revenue mix toward the GWS segment, which generally has lower gross margin. In addition, certain charges associated with our cost reduction and efficiency initiatives also contributed to an increase in cost of revenue this year.

Operating, administrative and other expenses decreased by $87.5 million, or 1.9%, for the year, driven by lower incentive compensation in the REI segment, reflecting the overall decline in revenue. In addition, we recorded approximately $185.9 million related to Telford Homes' fire safety remediation charges in 2022 that did not recur in 2023. GWS incurred higher infrastructure costs in support of revenue growth. Other factors weighing on expenses in 2023 include efficiency and cost reduction charges, increased professional fees associated with various capital allocation opportunities, certain legal settlement charges and higher bad debt expenses. Foreign currency translation had a 0.3% benefit on operating expenses for the year. Operating expenses as a percentage of revenue decreased to 14.3% from 15.1% in 2022, mainly due to GWS revenue outpacing operating expense growth and the Telford Homes fire safety remediation charges in 2022.

Depreciation and amortization expense increased by $8.9 million, or 1.4%, during the year, due to continued investment in capital assets and depreciation and amortization associated with fixed assets and intangible assets acquired as part of in-fill acquisitions. These increases were partially offset by lower amortization expense compared with 2022, when loan payoffs in our Capital Markets loan servicing business increased amortization.

We did not record any asset impairments in 2023 versus $58.7 million in 2022, including $10.4 million related to our exit of the Advisory Services business in Russia; $26.4 million for non-cash goodwill impairment and $21.9 million for non-cash trade name impairment both related to Telford Homes in our REI segment. The Telford Homes charges were attributable to the effect of elevated inflation on construction, materials and labor costs, which reduced profitability because sales prices for the build-to-rent developments were fixed at the time the developments were sold to a long-term investor.

Gain on disposition of real estate decreased by $216.9 million in 2023. Economic uncertainty and higher interest rates constrained asset sales in the REI segment compared with significant gains in 2022.

Equity income from unconsolidated subsidiaries increased by $19.3 million, or 8.4%, in 2023, reflecting improved equity pickups and fair value adjustments in our non-core investment portfolio this year. This was partially offset by lower equity earnings associated with property sales reported in our REI segment.

Other income on a consolidated basis was $60.8 million in 2023 versus a loss of $11.9 million in 2022. Current-year activity primarily includes a one-time gain of approximately $34.2 million associated with remeasuring an investment in an unconsolidated subsidiary to fair value as of the date the remaining controlling interest was acquired. In addition, we also recorded approximately $6.0 million in gain upon conversion of a debt security and net favorable fair value adjustments of $7.6 million on securities portfolio owned by our wholly-owned captive insurance company during the year. Losses in 2022 were primarily due to sales of certain marketable equity securities.

Consolidated interest expense, net of interest income, increased by $80.2 million, or 116.3%, in 2023, reflecting higher interest rates, increased borrowings on the revolving credit facilities, the issuance of new senior notes in the second quarter and borrowings on senior term loans in the third quarter of this year.

Our provision for income taxes on a consolidated basis was $249.5 million for the year ended December 31, 2023 as compared to $234.2 million in 2022. Our effective tax rate increased to 19.5% in 2023 from 14.1% in 2022. The increase is primarily due to the one-time benefit in 2022 related to the outside basis differences recognized as a result of a legal entity restructuring.

The Organization for Economic Co-operation & Development (OECD) Pillar Two Model Rules established a minimum global effective tax rate of 15% on country-by-country profits of large multinational companies. European Union member states along with many other countries adopted or expected to adopt the OECD Pillar Two Model effective January 1, 2024 or thereafter. The OECD and other countries continue to publish guidelines and legislation which include transition and safe harbor rules. We continue to monitor new legislative changes and assess the global impact of the Pillar Two Model Rules. Based on our initial assessment we anticipate Pillar Two top-up taxes to be immaterial.

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. We also have a Corporate and other segment. For additional information on our segments, see Note 19 of the Notes to Consolidated Financial Statements set forth in Item 8 of this Annual Report.

Advisory Services

The following table summarizes our results of operations for our Advisory Services operating segment for the years ended December 31, 2023 and 2022 (dollars in millions):

	Year Ended December 31,			
	2023		2022	
Revenue:				
Net revenue:				
Property management	$ 1,840	21.7 %	$ 1,777	18.0 %
Valuation	716	8.4 %	765	7.7 %
Loan servicing	317	3.7 %	311	3.2 %
Advisory leasing	3,503	41.2 %	3,872	39.2 %
Capital markets:				
Advisory sales	1,611	19.0 %	2,523	25.5 %
Commercial mortgage origination	424	5.0 %	563	5.7 %
Total segment net revenue	8,411	99.0 %	9,811	99.3 %
Pass through costs also recognized as revenue	88	1.0 %	72	0.7 %
Total segment revenue	8,499	100.0 %	9,883	100.0 %
Costs and expenses:				
Cost of revenue	5,147	60.6 %	5,980	60.5 %
Operating, administrative and other	2,076	24.4 %	2,055	20.8 %
Depreciation and amortization	289	3.4 %	311	3.1 %
Asset impairments	—	0.0 %	10	0.1 %
Total costs and expenses	7,512	88.4 %	8,356	84.5 %
Operating income	987	11.6 %	1,527	15.5 %
Equity income from unconsolidated subsidiaries	4	0.0 %	15	0.1 %
Other income	46	0.5 %	1	0.0 %
Add-back: Depreciation and amortization	289	3.4 %	311	3.1 %
Add-back: Asset impairments	—	0.0 %	10	0.1 %
Adjustments:				
One-time gain associated with remeasuring an investment in an unconsolidated subsidiary to fair value as of the date the remaining controlling interest was acquired	(34)	(0.4)%	—	0.0 %
Costs associated with efficiency and cost-reduction initiatives	72	0.9 %	46	0.5 %
Segment operating profit and segment operating profit on revenue margin	$ 1,364	16.0 %	$ 1,910	19.3 %
Segment operating profit on net revenue margin		16.2 %		19.5 %

Year Ended December 31, 2023 Compared to Year Ended December 31, 2022

Revenue decreased by $1.4 billion, or 14.0%, in 2023 with declines across most lines of business, except property management and loan servicing. Sales revenue fell 36.2%, mortgage origination revenue decreased 24.7%, leasing revenue declined 9.5%, and valuation revenue dropped 6.3%. A stressed lending environment made it difficult to access capital at a reasonable cost, thereby constraining capital markets activity. Property management revenue was up 3.5% due to new clients and expanded opportunities with existing clients, mainly in the U.S. Loan servicing revenue was up 1.9% given growth in the servicing portfolio, which closed 2023 at an all-time high of $410 billion. Our Americas and Europe, Middle East and Africa (EMEA) regions were more affected by the macroeconomic conditions than Asia-Pacific (APAC), where performance matched the prior year. Foreign currency translation was a 0.5% drag on revenue in 2023, primarily driven by weakness in the Japanese yen, Australian dollar and Canadian dollar, partially offset by strength in the euro.

Cost of revenue decreased by $833.1 million, or 13.9%, in 2023 primarily due to our variable compensation structure, which saw commission expense fall in line with lower sales and leasing revenue. Foreign currency translation had a 0.5% positive impact on cost of revenue, while as a percentage of revenue, cost of revenue remained relatively flat at approximately 60% for both years. This was due to a shift in revenue composition whereby high-margin capital markets revenue decreased while lower-margin property management and loan servicing revenue increased.

Operating, administrative and other expenses increased by $21.2 million, or 1.0%, in 2023. This slight increase resulted from employee separation benefits and lease termination charges, certain legal settlement charges, and increased bad debt expense, partially offset by lower incentive compensation expense and fixed costs that declined as a result of cost saving actions. Foreign currency translation had a 0.3% benefit on total operating expenses during the year ended December 31, 2023.

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 year ended December 31, 2023, MSRs contributed to operating income $83.8 million of gains recognized in conjunction with the origination and sale of mortgage loans, offset by $144.0 million of amortization of related intangible assets. For the year ended December 31, 2022, MSRs contributed $134.1 million of gains recognized in conjunction with the origination and sale of mortgage loans, offset by $163.7 million of amortization of related intangible assets. The decrease in gains was associated with lower origination activity given the higher cost of debt.

Other income was $46.2 million in 2023 versus $1.4 million in 2022. Current-year activity primarily includes a one-time gain of approximately $34.2 million associated with remeasuring an investment in an unconsolidated subsidiary to fair value as of the date the remaining controlling interest was acquired.

Depreciation and amortization expense decreased mainly due to lower amortization expense compared with 2022, when loan payoffs in our Capital Markets loan servicing business increased amortization.

Global Workplace Solutions

The following table summarizes our results of operations for our Global Workplace Solutions (GWS) operating segment for the years ended December 31, 2023 and 2022 (dollars in millions):

	Year Ended December 31,			
	2023		2022	
Revenue:				
Net revenue:				
Facilities management	$ 5,806	25.8 %	$ 5,137	25.9 %
Project management	3,124	13.9 %	2,735	13.8 %
Total segment net revenue	8,930	39.7 %	7,872	39.7 %
Pass through costs also recognized as revenue	13,585	60.3 %	11,979	60.3 %
Total segment revenue	22,515	100.0 %	19,851	100.0 %
Costs and expenses:				
Cost of revenue	20,345	90.4 %	17,948	90.4 %
Operating, administrative and other	1,242	5.5 %	1,080	5.4 %
Depreciation and amortization	262	1.2 %	253	1.3 %
Total costs and expenses	21,849	97.1 %	19,281	97.1 %
Operating income	666	2.9 %	570	2.9 %
Equity income from unconsolidated subsidiaries	1	0.0 %	1	0.0 %
Other income	2	0.0 %	7	0.0 %
Add-back: Depreciation and amortization	262	1.2 %	253	1.3 %
Adjustments:				
Integration and other costs related to acquisitions	23	0.1 %	40	0.2 %
Costs associated with efficiency and cost-reduction initiatives	52	0.3 %	28	0.1 %
Segment operating profit and segment operating profit on revenue margin	$ 1,006	4.5 %	$ 899	4.5 %
Segment operating profit on net revenue margin		11.3 %		11.4 %

Year Ended December 31, 2023 Compared to Year Ended December 31, 2022

Revenue increased by $2.7 billion, or 13.4%, in 2023, driven by new clients and expansion of services to existing clients, augmented by in-fill acquisitions. Foreign currency translation had a 0.5% drag on revenue in 2023, primarily driven by weakness in the Argentina peso and Canadian dollar partially offset by strength in the euro.

Cost of revenue increased by $2.4 billion, or 13.4%, in 2023, driven by higher pass-through costs and increased professional compensation. Foreign currency translation had a 0.5% benefit on total cost of revenue in 2023. Cost of revenue as a percentage of revenue remained flat at 90.4% in 2023 and 2022 primarily due to an increase in project management revenue, which generally has higher margins, partially offsetting the impact of higher pass-through costs.

Operating, administrative and other expenses increased by $161.1 million, or 14.9%, in 2023. The increase is due to higher compensation expense, higher infrastructure costs supporting business growth, charges associated with the integration of acquisitions and expenses from acquired entities. In addition, the GWS segment incurred approximately $51.6 million in charges related to employee separation benefits, lease and contract termination costs, up from $27.9 million in 2022. Foreign currency translation had a 0.5% benefit on total operating expenses in 2023.

Depreciation and amortization expense increased by $9.2 million, or 3.6%, in 2023 due to continued investment in technology.

Real Estate Investments

The following table summarizes our results of operations for our Real Estate Investments (REI) operating segment for the years ended December 31, 2023 and 2022 (dollars in millions):

	Year Ended December 31,			
	2023		2022	
Revenue:				
Investment management	$ 592	62.1 %	$ 595	53.6 %
Development services	360	37.9 %	515	46.4 %
Total segment revenue	952	100.0 %	1,110	100.0 %
Costs and expenses:				
Cost of revenue	186	19.5 %	322	29.0 %
Operating, administrative and other	784	82.4 %	1,082	97.5 %
Depreciation and amortization	15	1.6 %	16	1.5 %
Asset impairments	—	0.0 %	49	4.4 %
Total costs and expenses	985	103.5 %	1,469	132.4 %
Gain on disposition of real estate	27	2.9 %	244	22.0 %
Operating loss	(6)	(0.6)%	(115)	(10.4)%
Equity income from unconsolidated subsidiaries	216	22.6 %	380	34.3 %
Other income (loss)	—	0.0 %	(1)	(0.1)%
Add-back: Depreciation and amortization	15	1.6 %	16	1.5 %
Add-back: Asset impairments	—	0.0 %	49	4.4 %
Adjustments:				
Carried interest incentive compensation reversal to align with the timing of associated revenue	(7)	(0.8)%	(4)	(0.4)%
Impact of fair value adjustments to real estate assets acquired in the Telford acquisition (purchase accounting) that were sold in period	—	0.0 %	(5)	(0.5)%
Costs associated with efficiency and cost-reduction initiatives	21	2.3 %	12	1.1 %
Provision associated with Telford's fire safety remediation efforts	—	0.0 %	186	16.8 %
Segment operating profit and segment operating profit on revenue margin	$ 239	25.1 %	$ 518	46.7 %

Year Ended December 31, 2023 Compared to Year Ended December 31, 2022

Macroeconomic conditions had a significant impact on the REI segment. Less available and more expensive debt capital constrained asset and fund monetization and our ability to source new debt capital to fund development projects. Revenue decreased by $157.8 million, or 14.2%, in 2023, largely driven by fewer asset sales, primarily in our international development services markets, and lower development and construction management fees, as well as lower incentive fees. Foreign currency translation had a negligible impact on total revenue during the year ended December 31, 2023.

Cost of revenue decreased by $136.3 million, or 42.3%, in 2023. Cost of revenue as a percent of revenue declined to 19.5% in 2023 from 29.0% in 2022, reflecting a higher proportion of revenue coming from the investment management line of business which has no associated cost of revenue. This was partially offset by cost overruns on certain U.K. residential construction projects. Foreign currency translation had a negligible impact on total cost of revenue during the year ended December 31, 2023.

Operating, administrative and other expenses decreased by $297.8 million, or 27.5%, in 2023 due to lower incentive compensation expense and $185.9 million estimated provision related to Telford Homes' fire and building safety remediation work in 2022, which was not repeated this year. Foreign currency translation had a 0.2% benefit on total operating expenses in 2023.

Equity income from unconsolidated subsidiaries decreased by $164.8 million, or 43.3%, in 2023 primarily due to lower net sales of our equity interests to our joint-venture partners on development projects. Gain on disposition of real estate decreased by $216.9 million in 2023 due to fewer sales of consolidated development projects compared with a significant number of such sales, primarily land sales, in 2022.

A roll forward of our assets under management (AUM) by product type for the year ended December 31, 2023 is as follows (dollars in billions):

	Funds	Separate Accounts	Securities	Total
Balance at December 31, 2022	$ 66.2	$ 73.2	$ 9.9	$ 149.3
Inflows	4.2	6.4	1.2	11.8
Outflows	(3.1)	(4.2)	(2.1)	(9.4)
Market (depreciation) appreciation	(2.0)	(2.6)	0.4	(4.2)
Balance at December 31, 2023	$ 65.3	$ 72.8	$ 9.4	$ 147.5

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.

Corporate and Other

Our Corporate segment primarily consists of corporate overhead costs. Other consists of activities from strategic non-core, non-controlling equity investments and is considered an operating segment but does not meet the aggregation criteria for presentation as a separate reportable segment and is, therefore, combined with our core Corporate function and reported as Corporate and other. The following table summarizes our results of operations for our Corporate and other segment for the years ended December 31, 2023 and 2022 (dollars in millions):

	Year Ended December 31, [1]	
	2023	2022
Elimination of inter-segment revenue	$ (17)	$ (16)
Costs and expenses:		
Cost of revenue [2]	(3)	(11)
Operating, administrative and other	460	432
Depreciation and amortization	56	33
Total costs and expenses	513	454
Operating loss	(530)	(470)
Equity income (loss) from unconsolidated subsidiaries	27	(167)
Other income (loss)	13	(19)
Add-back: Depreciation and amortization	56	33
Adjustments:		
Integration and other costs related to acquisitions	39	—
Costs incurred related to legal entity restructuring	13	13
Costs associated with efficiency and cost-reduction initiatives	14	32
Segment operating loss	$ (368)	$ (578)

(1) Percentage of revenue calculations are not meaningful and therefore not included.
(2) Primarily relates to inter-segment eliminations.

Year Ended December 31, 2023 Compared to Year Ended December 31, 2022

Core corporate

Operating, administrative and other expenses for our core corporate function were approximately $458.7 million in 2023, an increase of $28.6 million, or 6.7%. This was primarily due to higher professional fees as we explored various capital allocation opportunities and compensation expenses associated with certain roles that were embedded within the business segments last year but were moved to Corporate this year. This was partially offset by lower stock-based compensation expense this year.

Other income was approximately $7.6 million in 2023 versus a loss of $12.2 million in 2022. This is primarily comprised of net activity related to unrealized and realized gain/loss on equity and available for sale debt securities owned by our wholly-owned captive insurance company. These mark-to-market adjustments were in a net unfavorable position in 2022.

Other (non-core)

We recorded equity income of approximately $27.5 million in 2023 versus a loss of $167.3 million in 2022. This reflects improved equity pickups and fair value adjustments in our non-core investment portfolio.

We recorded other income of $5.1 million in 2023 versus a loss of $6.6 million in 2022. Last year's loss mainly resulted from realized losses on sale of marketable securities.

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 facilities. Our expected capital requirements for 2024 include up to $319.9 million of anticipated capital expenditures, net of tenant concessions. During the year ended December 31, 2023, we incurred $293.2 million of capital expenditures, net of tenant concessions received. As of December 31, 2023, we had aggregate future commitments of $180.4 million related to co-investments funds in our Real Estate Investments segment, $128.0 million of which is expected to be funded in 2024. Additionally, as of December 31, 2023, we are committed to fund additional capital of $230.1 million and $73.9 million to consolidated and unconsolidated projects, respectively, within our Real Estate Investments segment. As of December 31, 2023, we had $3.7 billion of borrowings available under our revolving credit facilities (under both the Revolving Credit Agreement, as described below, and the Turner & Townsend revolving credit facility) and $1.3 billion of cash and cash equivalents.

We have historically relied on our internally generated cash flow and our revolving credit facilities to fund our working capital, capital expenditure and general investment requirements (including in-fill acquisitions) and have not sought other external sources of financing to help fund these requirements. In the absence of extraordinary events, large strategic acquisitions or large returns of capital to shareholders, we anticipate that our cash flow from operations and our revolving credit facilities 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 are generally 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. 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 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.

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 consideration in future periods that are subject to the passage of time or achievement of certain performance metrics and other conditions. As of December 31, 2023 and 2022, we had accrued deferred purchase consideration totaling $530.2 million ($264.1 million of which was a current liability) and $574.3 million ($117.3 million of which was a current liability), respectively, 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 8 of this Annual Report.

Lastly, as described in Note 16 of the Notes to Consolidated Financial Statements set forth in Item 8 of this Annual Report, in November 2021, our board of directors authorized a program for the company to repurchase up to $2.0 billion of our Class A common stock over five years, effective November 19, 2021 (the 2021 program). In August 2022, our board of directors authorized an additional $2.0 billion, bringing the total authorized repurchase amount under the 2021 program to a total of $4.0 billion. During the year ended December 31, 2023, we repurchased 7,867,348 shares of our Class A common stock with an average price of $82.59 per share using cash on hand for an aggregate of $649.8 million. As of December 31, 2023, we had $1.5 billion of capacity remaining under the 2021 program.

Our stock repurchases have been funded with cash on hand and we intend to continue funding future repurchases with existing cash. We may utilize our stock repurchase programs 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 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.

As more fully described in Note 22 of the Notes to Consolidated Financial Statements set forth in Item 8 of this Annual Report, on March 16, 2023, Telford Homes entered into a legally binding agreement with the U.K. government, under which Telford Homes will (1) take responsibility for performing or funding remediation works relating to certain life-critical fire-safety issues on all Telford Homes-constructed buildings of 11 meters in height or greater in England constructed in the last 30 years (in-scope buildings) and (2) withdraw Telford Homes-developed buildings from the government-sponsored Building Safety Fund (BSF) and Aluminum Composite Material (ACM) Funds or reimburse the government funds for the cost of remediation of in-scope buildings.

We had an estimated liability of approximately $192.1 million (of which $82.2 million was current) and $185.9 million (of which $51.6 million was current) as of December 31, 2023 and 2022, respectively, related to the remediation efforts. We did not record any additional provision during the year ended December 31, 2023, as the above balance remains our best estimate of future losses associated with overall remediation efforts. We did not have any significant cash outflows related to this work in 2023.

The estimated remediation costs for in-scope buildings are subjective, highly complex and dependent on a number of variables outside of Telford Homes' control. These include, but are not limited to, individual remediation requirements for each building, the time required for the remediation to be completed, cost of construction or remediation materials, availability of construction materials, potential discoveries made during remediation that could necessitate incremental work, investigation costs, availability of qualified fire safety engineers, potential business disruption costs, potential changes to or new regulations and regulatory approval. We will continue to assess new information as it becomes available during the remediation process and adjust our estimated liability accordingly.

Historical Cash Flows

Year Ended December 31, 2023 Compared to Year Ended December 31, 2022

Operating Activities

Net cash provided by operating activities totaled $479.9 million for the year ended December 31, 2023, a decrease of $1.1 billion as compared to the year ended December 31, 2022. The primary driver was significantly lower earnings this period, down approximately $400.0 million as compared to last year due to stressed macroeconomic conditions. The other key drivers that contributed to the higher usage were as follows: (1) net outflow associated with net working capital; the net working capital change was mainly due to lagged collection of receivables, higher outflow related to net bonus payments due to overall decrease in bonus expense recorded in 2023 as compared to 2022, compensation and other employee benefits this year, (2) certain non-cash charges (such as lower share-based compensation expense in 2023, net realized gain recorded on our equity and available for sale debt portfolio, net gain recorded upon acquisition of the remaining interest in a previously unconsolidated subsidiary) that contributed to the net outflow this year, and (3) lower net equity distribution from unconsolidated subsidiaries, mainly in REI where less available and more expensive debt capital constrained asset and fund monetization. These were partially offset by lower MSR revenue, which are non-cash in nature, recorded in current year as compared to prior year.

Investing Activities

Net cash used in investing activities totaled $681.0 million for the year ended December 31, 2023, a decrease of $151.4 million as compared to the year ended December 31, 2022. This decrease was primarily driven by lower net contributions to unconsolidated subsidiaries due to constrained funding and monetization of real estate projects, as compared to the year ended December 31, 2022, and a net investment in View the Space, Inc. (VTS) last year that did not recur this year. This was partially offset by higher capital expenditures compared to 2022 as we continue to invest in our platform and infrastructure, higher spend on in-fill acquisitions, and net outflows associated with our consolidated real estate projects, during this period as compared to the year ended December 31, 2022.

Financing Activities

Net cash provided by financing activities totaled $153.4 million for the year ended December 31, 2023 versus a net outflow of $1.8 billion for the year ended December 31, 2022. The increased inflow was primarily due to the net proceeds of $975.2 million from the issuance of our 5.950% senior notes, lower stock repurchase activities, and net inflows from issuance of new senior term loans and payment of prior euro term loan this period as compared to the same period last year. This was partially offset by $110.8 million in increased outflow related to acquisitions where cash was paid after 90 days of the acquisition date and net outflows related to our short-term borrowings.

Summary of Contractual Obligations and Other Commitments

The following is a summary of our various contractual obligations and other commitments as of December 31, 2023 (dollars in millions):

	Payments Due by Period	
Contractual Obligations	**Total**	**Less than 1 year**
Total gross long-term debt [1]	$ 2,855	$ 9
Short-term borrowings [2]	682	682
Operating leases [3]	2,204	239
Financing leases [3]	317	38
Total gross notes payable on real estate [4]	38	8
Deferred purchase consideration [5]	537	268
Total contractual obligations	$ 6,633	$ 1,244

	Amount of Other Commitments	
Other Commitments	**Total**	**Less than 1 year**
Self-insurance reserves [6]	$ 180	$ 180
Tax liabilities [7]	55	24
Co-investments [8] [9]	254	202
Letters of credit [8]	237	237
Guarantees [8] [10]	206	206
Telford's fire safety remediation provision [11]	192	82
Total other commitments	$ 1,124	$ 931

The table above excludes estimated payment obligations for our qualified defined benefit pension plans. For information about our future estimated payment obligations for these plans, see Note 14 of the Notes to Consolidated Financial Statements set forth in Item 8 of this Annual Report.

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[1] Reflects gross outstanding long-term debt balances as of December 31, 2023, assumed to be paid at maturity, excluding unamortized discount, premium and deferred financing costs. See Note 11 of the Notes to Consolidated Financial Statements set forth in Item 8 of this Annual Report. Figures do not include scheduled interest payments. Assuming each debt obligation is held until maturity, we estimate that we will make $965.6 million of interest payments, $144.8 million of which will be made in 2024.

[2] The majority of this balance represents our warehouse lines of credit, which are recourse only to our wholly-owned subsidiary CBRE Capital Markets, Inc. (CBRE Capital Markets) and are secured by our related warehouse receivables. See Notes 5 and 11 of the Notes to Consolidated Financial Statements set forth in Item 8 of this Annual Report.

[3] See Note 12 of the Notes to Consolidated Financial Statements set forth in Item 8 of this Annual Report.

[4] Reflects gross outstanding notes payable on real estate as of December 31, 2023 (none of which is recourse to us, beyond being recourse to the single-purpose entity that held the real estate asset and was the primary obligor on the note payable), assumed to be paid at maturity, excluding unamortized deferred financing costs. Amounts do not include scheduled interest payments. The notes have either fixed or variable interest rates, ranging from 3.00% to 9.00% at December 31, 2023.

[5] Represents deferred obligations, excluding contingent considerations, related to previous acquisitions, which are included in accounts payable and accrued expenses and other long-term liabilities in the consolidated balance sheets at December 31, 2023 set forth in Item 8 of this Annual Report.

[6] Represents outstanding reserves for claims under certain insurance programs, which are included in other current and other long-term liabilities in the consolidated balance sheets at December 31, 2023 set forth in Item 8 of this Annual Report. Due to the nature of this item, payments could be due at any time upon the occurrence of certain events. Accordingly, the entire balance has been reflected as expiring in less than one year.

[7] As of December 31, 2023, we have a remaining federal tax liability of $54.8 million associated with the Transition Tax on mandatory deemed repatriation of cumulative foreign earnings as of December 31, 2017. We are paying the federal tax liability for the Transition Tax in annual interest-free installments over a period of eight years through 2025 as allowed by the Tax Act. The next installment is due in 2024 for the 2023 fiscal year.

In addition, as of December 31, 2023, the total amount of gross unrecognized tax benefits totaled $413.5 million. Of this amount, we expect an insignificant amount of cash settlement in less than one year. See Note 15 of the Notes to Consolidated Financial Statements set forth in Item 8 of this Annual Report.

[8] See Note 13 of the Notes to Consolidated Financial Statements set forth in Item 8 of this Annual Report.

[9] Includes $180.4 million to fund future co-investments in our Real Estate Investments segment, $128.0 million of which is expected to be funded in 2024, and $73.9 million committed to invest in unconsolidated real estate subsidiaries, which is callable at any time. This amount does not include capital committed to consolidated projects of $230.1 million as of December 31, 2023.

[10] Due to the nature of guarantees, payments could be due at any time upon the occurrence of certain triggering events, including default. Accordingly, all guarantees are reflected as expiring in less than one year.

[11] See Note 22 of the Notes to Consolidated Financial Statements set forth in Item 8 of this Annual Report.

Indebtedness

We use a variety of financing arrangements, both long-term and short-term, to fund our operations in addition to cash generated from operating activities. We also use several funding sources to avoid becoming overly dependent on one financing source, and to lower funding costs.

Long-Term Debt

On July 10, 2023, CBRE Group, Inc., CBRE Services, Inc. (CBRE Services) and Relam Amsterdam Holdings B.V., a wholly-owned subsidiary of CBRE Services, entered into a new 5-year senior unsecured Credit Agreement (the 2023 Credit Agreement) maturing on July 10, 2028, which refinanced and replaced the previous credit agreement. The 2023 Credit Agreement provides for a senior unsecured term loan credit facility comprised of (i) tranche A Euro-denominated term loans in an aggregate principal amount of €366.5 million and (ii) tranche A U.S. Dollar-denominated term loans in an aggregate principal amount of $350.0 million with weighted average interest rate of 5.8% as of December 31, 2023, both requiring quarterly principal payments beginning on December 31, 2024 and continuing through maturity on July 10, 2028. The proceeds of the term loans under the 2023 Credit Agreement were applied to the repayment of all remaining outstanding senior term loans, approximately $437.5 million, under the previous credit agreement, the payment of related fees and expenses and other general corporate purposes.

The term loan borrowings under the 2023 Credit Agreement are guaranteed on a senior basis by CBRE Group, Inc. and CBRE Services.

On June 23, 2023, CBRE Services issued $1.0 billion in aggregate principal amount of 5.950% senior notes due August 15, 2034 (the 5.950% senior notes) at a price equal to 98.174% of their face value. The 5.950% senior notes are unsecured obligations of CBRE Services, senior to all of its current and future subordinated indebtedness, but effectively subordinated to its current and future secured indebtedness (if any) to the extent of the value of the assets securing such indebtedness. The 5.950% senior notes are guaranteed on a senior basis by CBRE Group, Inc. Interest accrues at a rate of 5.950% per year and is payable semi-annually in arrears on February 15 and August 15 of each year, beginning on February 15, 2024. The amount of the 5.950% senior notes, net of unamortized discount and unamortized debt issuance costs, included in the accompanying consolidated balance sheet was $973.7 million at December 31, 2023.

On March 18, 2021, CBRE Services issued $500.0 million in aggregate principal amount of 2.500% senior notes due April 1, 2031 (the 2.500% senior notes) at a price equal to 98.451% of their face value. The 2.500% senior notes are unsecured obligations of CBRE Services and are guaranteed on a senior basis by CBRE Group, Inc. Interest accrues at a rate of 2.500% per year and is payable semi-annually in arrears on April 1 and October 1 of each year. The amount of the 2.500% senior notes, net of unamortized discount and unamortized debt issuance costs, included in the accompanying consolidated balance sheet was $490.4 million and $489.3 million at December 31, 2023 and 2022, respectively.

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 and are guaranteed on a senior basis by CBRE Group, Inc. Interest accrues at a rate of 4.875% per year and is payable semi-annually in arrears on March 1 and September 1 of each year. The amount of the 4.875% senior notes, net of unamortized discount and unamortized debt issuance costs, included in the accompanying consolidated balance sheet was $597.5 million and $596.4 million at December 31, 2023 and 2022, respectively.

The indentures governing our 5.950% senior notes, 4.875% senior notes and 2.500% 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.

Our 2023 Credit Agreement is fully and unconditionally guaranteed by CBRE Group, Inc. and CBRE Services. Our Revolving Credit Agreement, 5.950% senior notes, 4.875% senior notes and 2.500% senior notes are fully and unconditionally guaranteed by CBRE Group, Inc.

Combined summarized financial information for CBRE Group, Inc. (parent) and CBRE Services (subsidiary issuer) is as follows (dollars in millions):

	December 31,	
	2023	2022
Balance Sheet Data:		
Current assets	$ 7	$ 9
Non-current assets [1]	1,733	13
Total assets [1]	1,740	22
Current liabilities	$ 48	$ 206
Non-current liabilities [2]	2,994	1,805
Total liabilities [2]	3,042	2,011

	Year Ended December 31,	
	2023	2022
Statement of Operations Data:		
Revenue	$ —	$ —
Operating loss	(1)	(3)
Net (loss) income	(70)	6

[1] Increase in non-current assets is due to legal entity restructurings that were executed at December 31, 2023.

[2] Includes $932.5 million and $719.3 million of intercompany loan payables to non-guarantor subsidiaries as of December 31, 2023 and 2022, respectively. All intercompany balances and transactions between CBRE Group, Inc. and CBRE Services have been eliminated.

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 of this Annual Report.

Short-Term Borrowings

On August 5, 2022, we entered into a new 5-year senior unsecured Revolving Credit Agreement (the Revolving Credit Agreement). The Revolving Credit Agreement provides for a senior unsecured revolving credit facility available to CBRE Services with a capacity of $3.5 billion and a maturity date of August 5, 2027.

The Revolving Credit Agreement requires us to pay a fee based on the total amount of the revolving credit facility commitment (whether used or unused). In addition, the Revolving Credit Agreement also includes capacity for letters of credit not to exceed $300.0 million in the aggregate.

As of December 31, 2023, no amount was outstanding under the Revolving Credit Agreement. No letters of credit were outstanding as of December 31, 2023. Letters of credit are issued in the ordinary course of business and would reduce the amount we may borrow under the Revolving Credit Agreement.

In addition, Turner & Townsend maintains a £120.0 million revolving credit facility pursuant to a credit agreement dated March 31, 2022, with an additional accordion option of £20.0 million. As of December 31, 2023, $10.2 million (£8.0 million) was outstanding under this revolving credit facility and bears interest at SONIA plus 0.75%.

We also maintain warehouse lines of credit with certain third-party lenders. For additional information on all of our short-term borrowings, see Notes 5 and 11 of the Notes to Consolidated Financial Statements set forth in Item 8 of this Annual Report.

Subsequent Event

On February 5, 2024, we announced a definitive agreement to acquire J&J Worldwide Services, a leading provider of engineering services, base support operations and facilities maintenance for the U.S. federal government, from Arlington Capital Partners, a private investment firm. The consideration consists of (i) an initial purchase price of $800 million, payable in cash at closing of the acquisition, plus (ii) a potential earn-out of up to $250 million, payable in cash in 2027 contingent on the acquired business meeting certain performance thresholds. Closing of the acquisition is expected to occur in Q1 2024, subject to obtaining applicable regulatory clearances and the satisfaction of other customary closing conditions.

Critical Accounting Policies and Estimates

Our consolidated financial statements have been prepared in accordance with 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. We believe that the following critical accounting policies represent the areas where more significant judgments and estimates are used in the preparation of our consolidated financial statements.

Revenue Recognition

To recognize revenue in a transaction with a customer, we evaluate the five steps of the Accounting Standards Codification (ASC) Topic 606 revenue recognition framework: (1) identify the contract; (2) identify the performance obligations in the contract; (3) determine the transaction price; (4) allocate the transaction price to the performance obligations and (5) recognize revenue when (or as) the performance obligations are satisfied.

Our revenue recognition policies are consistent with this five step framework. Understanding the complex terms of agreements and determining the appropriate time, amount, and method to recognize revenue for each transaction requires significant judgement. These significant judgements include: (i) determining what point in time or what measure of progress depicts the transfer of control to the customer; (ii) applying the series guidance to certain performance obligations satisfied over time; (iii) estimating how and when contingencies, or other forms of variable consideration, will impact the timing and amount of recognition of revenue and (iv) determining whether we control third party services before they are transferred to the customer in order to appropriately recognize the associated fees on either a gross or net basis. The timing and amount of revenue recognition in a period could vary if different judgments were made. Our revenues subject to the most judgment are brokerage commission revenue, incentive-based management fees, development fees and third party fees associated with our occupier outsourcing and property management services. For a detailed discussion of our revenue recognition policies. see the Revenue Recognition section within Note 2 of the Notes to Consolidated Financial Statements set forth in Item 8 of this Annual Report.

Goodwill and Other Intangible Assets

As of December 31, 2023, our consolidated balance sheet included goodwill of $5.1 billion and other intangible assets of $2.1 billion.

Our acquisitions require the application of purchase accounting, which results in tangible and identifiable intangible assets and liabilities of the acquired entity being recorded at fair value. The difference between the purchase price and the fair value of net assets acquired is recorded as goodwill. Assumptions must often be made in determining fair values, particularly where observable market values do not exist. Assumptions may include discount rates, growth rates, cost of capital, royalty rates, tax rates and remaining useful lives. These assumptions can have a significant impact on the value of identifiable assets and accordingly can impact the value of goodwill recorded. Different assumptions could result in different values being attributed to assets and liabilities. Since these values impact the amount of annual depreciation and amortization expense, different assumptions could also impact our statement of operations and could impact the results of future asset impairment reviews.

We test goodwill and other intangible assets deemed to have indefinite lives as of the beginning of the fourth quarter of each year and more frequently if events and circumstances indicate the potential for impairment is more likely than not. We have the option to perform a qualitative assessment with respect to any of our reporting units and indefinite-lived intangible assets to determine whether a quantitative impairment test is needed. We are permitted to assess based on qualitative factors whether it is more likely than not that the fair value of a reporting unit or indefinite-lived intangible asset is less than its carrying amount before applying the quantitative impairment test. Our procedures under qualitative tests include assessing our financial performance, macroeconomic conditions, industry and market considerations, various asset specific factors and entity specific events. If we determine that a reporting unit's goodwill or an indefinite-lived intangible asset may be impaired after utilizing these qualitative impairment analysis procedures, we are required to perform a quantitative impairment test. When performing a quantitative test, we use a discounted cash flow approach to estimate the fair value of our reporting units and indefinite-lived intangible assets. Management's judgment is required in developing the assumptions for the discounted cash flow model. These assumptions include revenue growth rates, profit margin percentages, discount rates, etc. Due to the many variables inherent in the estimation of these fair values and the relative size of our goodwill and indefinite-lived intangible assets, if different assumptions and estimates were used, it could have an adverse effect on our impairment analysis.

We did not incur any impairment losses as a result of our 2023 annual impairment tests, as it was determined that it is more likely than not that the estimated fair values of our reporting units and indefinite-lived intangible assets were substantially in excess of their carrying values as of December 31, 2023. Additionally, we do not believe that the estimated fair values of our reporting units or indefinite-lived intangible assets are at risk of decreasing below their carrying values in the next twelve months. For additional information on goodwill and intangible asset impairment testing, see Notes 2 and 9 of the Notes to Consolidated Financial Statements set forth in Item 8 of this Annual Report.

Income Taxes

Income taxes are accounted for under the asset and liability method in accordance with the "*Accounting for Income Taxes*" topic of the FASB ASC (Topic 740). Deferred tax assets and liabilities are determined based on temporary differences between the financial reporting and tax basis of assets and liabilities and operating loss and tax credit carry forwards. Deferred tax assets and liabilities are measured by applying enacted tax rates and laws and are released in the years in which the temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Valuation allowances are provided against deferred tax assets when it is more likely than not that some portion or all of the deferred tax asset will not be realized.

Accounting for tax positions requires judgments, including estimating reserves for potential uncertainties. We also assess our ability to utilize tax attributes, including those in the form of carryforwards, for which the benefits have already been reflected in the financial statements. We do not record valuation allowances for deferred tax assets that we believe will be realized in future periods. While we believe the resulting tax balances as of December 31, 2023 and 2022 are appropriately accounted for in accordance with Topic 740, as applicable, the ultimate outcome of such matters could result in favorable or unfavorable adjustments to our consolidated financial statements and such adjustments could be material.

Our future effective tax rate could be adversely affected by earnings being lower than anticipated in countries that have lower statutory rates and higher than anticipated in countries that have higher statutory rates, changes in the valuation of our deferred tax assets or liabilities, or changes in tax laws, regulations, or accounting principles, as well as certain discrete items.

See Note 15 of the Notes to Consolidated Financial Statements set forth in Item 8 of this Annual Report for further information regarding income taxes.

Telford Fire Safety Remediation

As of December 31, 2023, the company had an estimated liability of $192.1 million on the balance sheet which represents management's best estimate of future losses associated with overall remediation efforts. It includes amounts that the U.K. government has already paid or quantified through the Building Safety Fund and estimates developed by Telford's internal team and/or third-party experts for the remaining in-scope buildings. The estimates were developed using the best available data, including (i) industry data, (ii) fire safety assessments (also known as PAS assessments and include fire risk appraisal of external wall construction) which identified remediation work to be performed on specific buildings, and (iii) bids from subcontractors. We applied an inflation factor to account for uncertainty in completion of remediation activities which could take an extended period of time to complete, an estimate of direct costs associated with an internal team dedicated to this remediation, and a contingency to account for unknown remediation costs. Inherent uncertainties exist in such evaluations primarily due to its subjective, highly complex nature and other unknowns such as individual remediation requirements, time required for remediation, and cost of materials and resources amongst others. We will continue to assess new information as it becomes available during the remediation process and adjust our estimated liability accordingly.

See Note 22 of the Notes to Consolidated Financial Statements set forth in Item 8 of this Annual Report for further information.

Investments in unconsolidated subsidiaries – fair value option

We have elected the fair value option for certain of our investments in non-public entities to align with our strategy for these investments. Such investments without readily determinable fair values are classified as Level 3 in the fair value hierarchy. We estimate the fair market value on a recurring basis using significant unobservable inputs which requires judgment due to the absence of market prices or similar assets in active markets. In determining the estimated fair value of these investments, we utilize appropriate valuation techniques including discounted cash flow analyses and Monte Carlo simulations. Key inputs to the discounted cash flow analyses include projected cash flows, terminal growth rate, and discount rate. Key inputs to Monte Carlo simulations include stock price, volatility, risk free rate, and dividend yield.

Changes in the fair value of equity investments under the fair value option are recorded as equity income from unconsolidated subsidiaries in the Consolidated Statements of Operations.

New Accounting Pronouncements

See New Accounting Pronouncements discussion within Note 3 of the Notes to Consolidated Financial Statements set forth in Item 8 of this Annual Report.

Non-GAAP Financial Measures

Net revenue, segment operating profit on revenue margin, segment operating profit on net revenue margin, core EBITDA, core adjusted net income and core earnings per diluted share (or core EPS) are not recognized measurements under accounting principles generally accepted in the United States, or 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 costs and charges that may obscure the underlying performance of our business and related trends. Because not all companies use identical calculations, our presentation of net revenue, core EBITDA, core adjusted net income and core EPS may not be comparable to similarly titled measures of other companies.

Net revenue is gross revenue less costs largely associated with subcontracted vendor work performed for clients and generally has no margin. Segment operating profit on revenue margin is computed by dividing segment operating profit by revenue and provides a comparable profitability measure against our peers. Segment operating profit on net revenue margin is computed by dividing segment operating profit by net revenue and is a better indicator of the segment's margin since it does not include the diluting effect of pass through revenue which generally has no margin.

We use core EBITDA, core adjusted net income and core earnings per share (or core EPS) as indicators of the company's operating financial performance. Core EBITDA and core adjusted net income exclude carried interest incentive compensation expense (reversal) to align with the timing of associated revenue, fair value adjustments to real estate assets acquired in the Telford acquisition (purchase accounting) that were sold in the period, costs incurred related to legal entity restructuring, efficiency and cost-reduction initiatives, integration and other costs related to acquisitions, provision associated with Telford's fire safety remediation efforts, a one-time gain associated with remeasuring an investment in an unconsolidated subsidiary to fair value as of the date the remaining controlling interest was acquired, fair value changes on certain non-core non-controlling equity investments, non-cash depreciation and amortization expense related to certain assets attributable to acquisitions and restructuring activities and related impact on income taxes and non-controlling interest. 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.

Core EBITDA, core adjusted net income and core EPS are not intended to be measures of free cash flow for our discretionary use because they do not consider certain cash requirements such as tax and debt service payments. This measures may also differ from the amounts calculated under similarly titled definitions in our credit facilities and 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 core EBITDA and core EPS as significant components when measuring our operating performance under our employee incentive compensation programs.

Core EBITDA is calculated as follows (dollars in millions):

	Year Ended December 31,	
	2023	2022
Net income attributable to CBRE Group, Inc.	$ 986	$ 1,407
Net income attributable to non-controlling interests	41	17
Net income	1,027	1,424
Adjustments:		
Depreciation and amortization	622	613
Asset impairments	—	59
Interest expense, net of interest income	149	69
Write-off of financing costs on extinguished debt	—	2
Provision for income taxes	250	234
Carried interest incentive compensation reversal to align with the timing of associated revenue	(7)	(4)
Impact of fair value adjustments to real estate assets acquired in the Telford acquisition (purchase accounting) that were sold in period	—	(5)
Costs incurred related to legal entity restructuring	13	13
Integration and other costs related to acquisitions	62	40
Costs associated with efficiency and cost-reduction initiatives	159	118
Provision associated with Telford's fire safety remediation efforts	—	186
One-time gain associated with remeasuring an investment in an unconsolidated subsidiary to fair value as of the date the remaining controlling interest was acquired	(34)	—
Net fair value adjustments on strategic non-core investments	(32)	175
Core EBITDA	$ 2,209	$ 2,924

Core net income attributable to CBRE Group, Inc. stockholders, as adjusted (or core adjusted net income), and core EPS, are calculated as follows (in millions, except share and per share data):

	Year Ended December 31,	
	2023	2022
Net income attributable to CBRE Group, Inc.	$ 986	$ 1,407
Plus / minus:		
Carried interest incentive compensation reversal to align with the timing of associated revenue	(7)	(4)
Impact of fair value adjustments to real estate assets acquired in the Telford acquisition (purchase accounting) that were sold in period	—	(5)
Costs incurred related to legal entity restructuring	13	13
Integration and other costs related to acquisitions	62	40
Costs associated with efficiency and cost-reduction initiatives	159	118
Provision associated with Telford's fire safety remediation efforts	—	186
One-time gain associated with remeasuring an investment in an unconsolidated subsidiary to fair value as of the date the remaining controlling interest was acquired	(34)	—
Net fair value adjustments on strategic non-core investments	(32)	175
Non-cash depreciation and amortization expense related to certain assets attributable to acquisitions	167	166
Asset impairments	—	59
Write-off of financing costs on extinguished debt	—	2
Tax impact of adjusted items, tax benefit attributable to legal entity restructuring, and strategic non-core investments	(82)	(254)
Impact of adjustments on non-controlling interest	(33)	(40)
Core net income attributable to CBRE Group, Inc., as adjusted	$ 1,199	$ 1,863
Core diluted income per share attributable to CBRE Group, Inc., as adjusted	$ 3.84	$ 5.69
Weighted average shares outstanding for diluted income per share	312,550,942	327,696,115

Net revenue and gross revenue from resilient business lines is calculated as follows (dollars in millions):

	Year Ended December 31,	
	2023	2022
Net revenue from resilient business lines		
Facilities management	$ 5,806	$ 5,137
Property management	1,840	1,777
Project management	3,124	2,735
Valuation	716	765
Loan servicing	317	311
Asset management fees [1]	539	536
Total net revenue from resilient business lines	12,342	11,261
Pass through costs also recognized as revenue	13,673	12,051
Total revenue from resilient business lines	$ 26,015	$ 23,312

[1] Asset management fees is included in Investment management revenue.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

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. In July 2023, we entered into a cross currency swap to effectively hedge the foreign currency exposure related to our new U.S. denominated term loan entered into by a euro functional entity. See Note 7 of the Notes to Consolidated Financial Statements set forth in Item 8 of this Annual Report for additional information on fair value methodology used to value the swap at December 31, 2023. We apply FASB 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.

International Operations

We conduct a significant portion of our business and employ a substantial number of people outside the U.S. As a result, we are subject to risks associated with doing business globally. Our Real Estate Investments business has significant euro and British pound denominated assets under management, as well as associated revenue and earnings in Europe. In addition, our Global Workplace Solutions business also derives significant revenue and earnings in foreign currencies, such as the euro and British pound sterling. Our business has been significantly impacted this year by the sharp appreciation of the U.S. dollar against these and other foreign currencies. Further fluctuations in foreign currency exchange rates may continue to produce corresponding changes in our AUM, revenue and earnings.

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 the U.S. dollar. On July 10, 2023, we entered into a cross currency swap to effectively hedge the foreign currency exposure related to our new euro-denominated term loan that was executed on that date.

Our businesses could suffer from the effects of rapid changes in and high levels of interest rates, reduced access to debt capital or liquidity constraints, downturns in general macroeconomic conditions, regulatory or financial market uncertainty, or unanticipated disruptions such as public health crises like Covid-19 and geopolitical events like the wars in Ukraine and in the Middle East (or the perception that such disruptions may occur).

During the year ended December 31, 2023, approximately 45.3% of our revenue was transacted in foreign currencies. The following table sets forth our revenue derived from our most significant currencies (dollars in millions):

	Year Ended December 31,			
	2023		2022	
United States dollar	$ 17,470	54.7 %	$ 17,470	56.7 %
British pound sterling	4,393	13.8 %	4,084	13.2 %
Euro	3,003	9.4 %	2,854	9.3 %
Canadian dollar	1,195	3.7 %	1,232	4.0 %
Australian dollar	867	2.7 %	769	2.5 %
Indian rupee	663	2.1 %	534	1.7 %
Chinese yuan	516	1.6 %	534	1.7 %
Japanese yen	485	1.5 %	407	1.3 %
Swiss franc	427	1.3 %	392	1.3 %
Singapore dollar	413	1.3 %	354	1.1 %
Other currencies [1]	2,517	7.9 %	2,198	7.2 %
Total revenue	$ 31,949	100.0 %	$ 30,828	100.0 %

[1] Approximately 46 currencies comprise 7.9% of our revenue for the year ended December 31, 2023, and approximately 48 currencies comprise 7.2% of our revenue for the year ended December 31, 2022.

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. A hypothetical 10% adverse change in the value of the U.S. dollar relative to the British pound sterling during the year ended December 31, 2023, would have decreased pre-tax income by $5.4 million. A hypothetical 10% adverse change in the value of the U.S. dollar relative to the euro would have increased pre-tax income by $6.3 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.

Fluctuations in foreign currency exchange rates may result in corresponding fluctuations in revenue and earnings as well as the assets under management for our investment management business, which could have a material adverse effect on our business, financial condition and operating results. 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.

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 December 31, 2023, we did not have any outstanding interest rate swap agreements.

The estimated fair value of our senior term loans was approximately $746.5 million at December 31, 2023. Based on dealers' quotes, the estimated fair values of our 5.950% senior notes, 4.875% senior notes and 2.500% senior notes were $1.0 billion, $600.2 million and $424.0 million, respectively, at December 31, 2023.

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 December 31, 2023, the net impact of the additional interest cost would be a decrease of $7.6 million on pre-tax income and a decrease of $7.6 million in cash provided by operating activities for the year ended December 31, 2023.

Item 8. Financial Statements and Supplementary Data.

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All other schedules are omitted because they are either not applicable, not required or the information required is included in the Consolidated Financial Statements, including the notes thereto.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
CBRE Group, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of CBRE Group, Inc. and subsidiaries (the Company) as of December 31, 2023 and 2022, the related consolidated statements of operations, comprehensive income, cash flows, and equity for each of the years in the three-year period ended December 31, 2023, and the related notes and financial statement schedule II (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2023, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 20, 2024 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Evaluation of estimated liability for Telford fire safety remediation

As discussed in Note 22 to the consolidated financial statements, on April 28, 2022, the United Kingdom ("UK") passed the Building Safety Act of 2022 ("BSA"). The BSA introduced new laws related to building safety and the remediation of historic building safety defects, effectively requiring developers to remediate certain buildings with critical fire safety issues. Telford Homes (a wholly owned subsidiary of CBRE Group, Inc.) signed the UK government's non-binding Fire Safety Pledge (the "Pledge") on April 28, 2022. On March 16, 2023, Telford Homes entered into a legally binding agreement with the U.K. government, under which Telford Homes will (1) take responsibility for performing or funding remediation works relating to certain life-critical fire-safety issues on all Telford Homes-constructed buildings of 11 meters in height or greater in England constructed in the last 30 years and (2) withdraw Telford Homes-developed buildings from the government-sponsored BSF and ACM Funds or reimburse the government funds for the cost of remediation of in-scope buildings. The Company has recorded a $192.1 million estimated liability related to the legally binding agreement as of December 31, 2023, of which $155.7 million is related to management's estimate for the potential additional costs to be incurred for buildings to be remediated directly by Telford Homes, based on the best available data including third-party cost estimates for remediation.

We identified the Company's evaluation of the estimate of potential additional costs associated with the legally binding agreement (Additional Costs) as a critical audit matter. Due to the nature of the agreement, a high degree of subjectivity was required to evaluate which buildings are subject to the Additional Costs and estimated remediation cost for those buildings.

The following are the primary procedures we performed to address this critical audit matter:

- We evaluated the design and tested the operating effectiveness of certain internal controls over the Company's fire safety provision process, including estimates related to which buildings are subject to the Additional Costs and remediation cost for those buildings,
- We assessed the completeness of the Additional Costs by obtaining a listing of all Telford Homes' buildings built since inception of Telford Homes. For a sample of the buildings, we evaluated the Company's determination of which buildings are subject to the Additional Costs by assessing the sample selected to building specifications, external fire review reports and the resulting risk profile assigned to each building, and
- We obtained the Company's estimation of the liability and for a sample of Additional Costs evaluated the accuracy of the Additional Costs by agreeing to underlying support including third party evidence, where available, and challenged the appropriateness of the significant assumptions included within the estimated liability.

Assessment of gross unrecognized tax benefits

As discussed in Notes 2 and 15 to the consolidated financial statements, the Company has recorded gross unrecognized tax benefits of $413.5 million as of December 31, 2023. The Company utilizes a two-step approach to recognizing and measuring uncertain tax positions. The first step is to evaluate the tax position for recognition by determining if the available evidence indicates there is more than a 50% likelihood that the position will be sustained upon examination, including resolution of related appeals or litigation processes. The second step is to measure the tax benefit as the largest amount which is more than 50% likely of being realized upon ultimate settlement.

We identified the assessment of the gross unrecognized tax benefits as a critical audit matter. Complex auditor judgment and the involvement of tax professionals with specialized skills and knowledge were required in evaluating the Company's interpretation of tax law and its estimate of the resolution of the tax positions underlying the unrecognized tax benefits.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls over the Company's unrecognized tax benefits process, including the interpretation of tax law and the estimate of the unrecognized tax benefits. Since tax law is complex and often subject to interpretations, we involved tax professionals with specialized skills and knowledge, who assisted in:

- Obtaining an understanding of the Company's tax planning strategies including changes in legal entity structures and intercompany financing arrangements,
- Evaluating the Company's interpretation of tax law and the potential impact on the Company's tax positions,
- Inspecting correspondence with applicable taxing authorities, and assessing the expiration of statutes of limitations, and
- Performing an independent assessment of certain of the Company's tax positions and comparing the results to the Company's assessment

/s/ KPMG LLP

We have served as the Company's auditor since 2008.

Los Angeles, California

February 20, 2024

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
CBRE Group, Inc.:

Opinion on Internal Control Over Financial Reporting

We have audited CBRE Group, Inc. and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2023, based on criteria established in*Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2023 and 2022, the related consolidated statements of operations, comprehensive income, cash flows and equity for each of the years in the three-year period ended December 31, 2023, and the related notes and financial statement schedule II (collectively, the consolidated financial statements), and our report dated February 20, 2024 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP

Los Angeles, California

February 20, 2024

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

	December 31, 2023	December 31, 2022
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 1,265	$ 1,318
Restricted cash	106	87
Receivables, less allowance for doubtful accounts of $ 102.0 and $ 92.4 at December 31, 2023 and 2022, respectively	6,370	5,327
Warehouse receivables	675	455
Contract assets	443	392
Prepaid expenses	333	311
Income taxes receivable	159	82
Other current assets	315	557
Total Current Assets	9,666	8,529
Property and equipment, net of accumulated depreciation and amortization of $ 1,576.1 and $ 1,386.3 at December 31, 2023 and 2022, respectively	907	836
Goodwill	5,129	4,868
Other intangible assets, net of accumulated amortization of $ 2,178.9 and $ 1,915.7 at December 31, 2023 and 2022, respectively	2,081	2,193
Operating lease assets	1,030	1,033
Investments in unconsolidated subsidiaries (with $ 997.3 and $ 973.6 at fair value at December 31, 2023 and 2022, respectively)	1,374	1,318
Non-current contract assets	75	137
Real estate under development	300	172
Non-current income taxes receivable	78	52
Deferred tax assets, net	361	266
Other assets, net	1,547	1,109
Total Assets	$ 22,548	$ 20,513
LIABILITIES AND EQUITY		
Current Liabilities:		
Accounts payable and accrued expenses	$ 3,562	$ 3,079
Compensation and employee benefits payable	1,459	1,459
Accrued bonus and profit sharing	1,556	1,691
Operating lease liabilities	242	230
Contract liabilities	298	276
Income taxes payable	217	184
Warehouse lines of credit (which fund loans that U.S. Government Sponsored Enterprises have committed to purchase)	666	448
Revolving credit facility	—	178
Other short-term borrowings	16	43
Current maturities of long-term debt	9	428
Other current liabilities	218	226
Total Current Liabilities	8,243	8,242
Long-term debt, net of current maturities	2,804	1,086
Non-current operating lease liabilities	1,089	1,080
Non-current income taxes payable	30	55
Non-current tax liabilities	157	149
Deferred tax liabilities, net	255	282
Other liabilities	903	1,013
Total Liabilities	13,481	11,907
Commitments and contingencies	—	—
Equity:		
CBRE Group, Inc. Stockholders' Equity:		
Class A common stock; $ 0.01 par value; 525,000,000 shares authorized; 304,889,140 and 311,014,160 shares issued and outstanding at December 31, 2023 and 2022, respectively	3	3
Additional paid-in capital	—	—
Accumulated earnings	9,188	8,833
Accumulated other comprehensive loss	(924)	(983)
Total CBRE Group, Inc. Stockholders' Equity	8,267	7,853
Non-controlling interests	800	753
Total Equity	9,067	8,606
Total Liabilities and Equity	$ 22,548	$ 20,513

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

CBRE GROUP, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(Dollars in millions, except share and per share data)

	Year Ended December 31,		
	2023	**2022**	**2021**
Revenue	$ 31,949	$ 30,828	$ 27,746
Costs and expenses:			
Cost of revenue	25,675	24,239	21,580
Operating, administrative and other	4,562	4,649	4,074
Depreciation and amortization	622	613	526
Asset impairments	—	59	—
Total costs and expenses	30,859	29,560	26,180
Gain on disposition of real estate	27	244	71
Operating income	1,117	1,512	1,637
Equity income from unconsolidated subsidiaries	248	229	619
Other income (loss)	61	(12)	204
Interest expense, net of interest income	149	69	50
Write-off of financing costs on extinguished debt	—	2	—
Income before provision for income taxes	1,277	1,658	2,410
Provision for income taxes	250	234	568
Net income	1,027	1,424	1,842
Less: Net income attributable to non-controlling interests	41	17	5
Net income attributable to CBRE Group, Inc.	$ 986	$ 1,407	$ 1,837
Basic income per share:			
Net income per share attributable to CBRE Group, Inc.	$ 3.20	$ 4.36	$ 5.48
Weighted average shares outstanding for basic income per share	308,430,080	322,813,345	335,232,840
Diluted income per share:			
Net income per share attributable to CBRE Group, Inc.	$ 3.15	$ 4.29	$ 5.41
Weighted average shares outstanding for diluted income per share	312,550,942	327,696,115	339,717,401

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

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

	Year Ended December 31,		
	2023	**2022**	**2021**
Net income	$ 1,027	$ 1,424	$ 1,842
Other comprehensive income (loss):			
Foreign currency translation gain (loss)	111	(409)	(159)
Amounts reclassified from accumulated other comprehensive loss to interest expense, net of $0.1, $0.1 and $0.2 income tax expense for the years ended December 31, 2023, 2022 and 2021, respectively	—	—	—
Unrealized holding losses on available for sale debt securities, net of $0.1 income tax expense and $1.8 and $0.4 income tax benefit for the years ended December 31, 2023, 2022 and 2021, respectively	—	(6)	(2)
Pension liability adjustments, net of $0.7, $5.2 and $8.3 income tax expense for the years ended December 31, 2023, 2022 and 2021, respectively	2	(15)	35
Other, net of $3.8 income tax benefit and $1.0 and $0.7 income tax expense for the years ended December 31, 2023, 2022 and 2021, respectively	(18)	(6)	3
Total other comprehensive income (loss)	95	(436)	(123)
Comprehensive income	1,122	988	1,719
Less: Comprehensive income (loss) attributable to non-controlling interests	77	(78)	(7)
Comprehensive income attributable to CBRE Group, Inc.	$ 1,045	$ 1,066	$ 1,726

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

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

	Year Ended December 31,		
	2023	**2022**	**2021**
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	$ 1,027	$ 1,424	$ 1,842
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	622	613	526
Amortization and write-off of financing costs on extinguished debt	6	8	8
Gains related to mortgage servicing rights, premiums on loan sales and sales of other assets	(102)	(203)	(143)
Gain associated with remeasuring our investment in a previously unconsolidated subsidiary to fair value as of the date we acquired the remaining interest	(34)	—	—
Gain on disposition of real estate assets	(27)	—	—
Asset impairments	—	59	—
Net realized and unrealized (gains) losses, primarily from investments	(6)	30	(42)
Provision for doubtful accounts	16	17	24
Net compensation expense for equity awards	96	160	185
Equity income from unconsolidated subsidiaries	(248)	(229)	(619)
Gain recognized upon deconsolidation of SPAC	—	—	(187)
Distribution of earnings from unconsolidated subsidiaries	256	389	520
Proceeds from sale of mortgage loans	9,714	14,527	17,195
Origination of mortgage loans	(9,905)	(13,652)	(17,016)
Increase (decrease) in warehouse lines of credit	218	(830)	(107)
Tenant concessions received	12	12	31
Purchase of equity securities	(15)	(28)	(7)
Proceeds from sale of equity securities	14	30	9
Decrease (increase) in real estate under development	81	95	(55)
Increase in receivables, prepaid expenses and other assets (including contract and lease assets)	(860)	(503)	(766)
Increase in accounts payable and accrued expenses and other liabilities (including contract and lease liabilities)	22	64	105
(Decrease) increase in compensation and employee benefits payable and accrued bonus and profit sharing	(173)	(2)	730
(Increase) decrease in net income taxes receivable/payable	(97)	(133)	248
Other operating activities, net	(137)	(219)	(117)
Net cash provided by operating activities	480	1,629	2,364
CASH FLOWS FROM INVESTING ACTIVITIES:			
Capital expenditures	(305)	(260)	(210)
Acquisition of businesses, including net assets acquired, intangibles and goodwill, net of cash acquired	(203)	(173)	(781)
Contributions to unconsolidated subsidiaries	(127)	(385)	(335)
Distributions from unconsolidated subsidiaries	54	87	76
Acquisition and development of real estate assets	(171)	—	—
Proceeds from disposition of real estate assets	77	—	—
Investment in VTS	—	(101)	—
Investment in Altus Power, Inc. Class A stock	—	—	(220)
Proceeds from sale of marketable securities - special purpose acquisition company trust account	—	—	213
Other investing activities, net	(6)	—	(24)
Net cash used in investing activities	(681)	(832)	(1,281)

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

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

	Year Ended December 31,		
	2023	**2022**	**2021**
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from revolving credit facility	4,006	1,833	27
Repayment of revolving credit facility	(4,184)	(1,655)	—
Proceeds from senior term loans	748	—	—
Repayment of senior term loans	(437)	—	(300)
Proceeds from notes payable on real estate	76	39	78
Repayment of notes payable on real estate	(43)	(28)	(109)
Proceeds from issuance of 5.950% senior notes	975	—	—
Proceeds from issuance of 2.500% senior notes	—	—	492
Repurchase of common stock	(665)	(1,850)	(369)
Acquisition of businesses (cash paid for acquisitions more than three months after purchase date)	(145)	(34)	(17)
Units repurchased for payment of taxes on equity awards	(72)	(38)	(39)
Non-controlling interest contributions	6	2	1
Non-controlling interest distributions	(42)	(1)	(5)
Redemption of non-controlling interest-special purpose acquisition company and payment of deferred underwriting commission	—	—	(205)
Other financing activities, net	(69)	(34)	(44)
Net cash provided by (used in) financing activities	154	(1,766)	(490)
Effect of currency exchange rate changes on cash and cash equivalents and restricted cash	13	(166)	(92)
NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS AND RESTRICTED CASH	(34)	(1,135)	501
CASH AND CASH EQUIVALENTS AND RESTRICTED CASH, AT BEGINNING OF YEAR	1,405	2,540	2,039
CASH AND CASH EQUIVALENTS AND RESTRICTED CASH, AT END OF YEAR	$ 1,371	$ 1,405	$ 2,540
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:			
Cash paid during the year for:			
Interest	$ 191	$ 89	$ 41
Income tax payments, net	$ 467	$ 604	$ 330
Non-cash investing and financing activities:			
Deferred and/or contingent consideration	$ 54	$ —	$ 485
Non-controlling interest as part of Turner & Townsend Acquisition	—	—	774
Investment in alignment shares and private placement warrants of Altus Power, Inc.	—	—	142
Reduction in redeemable non-controlling interest - special purpose acquisition company	—	—	212
Reduction of trust account - special purpose acquisition company	—	—	190

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

CBRE GROUP, INC.
CONSOLIDATED STATEMENTS OF EQUITY
(Dollars in millions, except share data)

	CBRE Group, Inc. Stockholders'							
					Accumulated other comprehensive loss			
	Shares	Class A common stock	Additional paid-in capital	Accumulated earnings	Minimum pension liability	Foreign currency translation and other	Non-controlling interests	Total
Balance at December 31, 2020	335,561,345	$ 3	$ 1,075	$ 6,530	$ (139)	$ (391)	$ 42	$ 7,120
Net income	—	—	—	1,837	—	—	5	1,842
Pension liability adjustments, net of tax	—	—	—	—	35	—	—	35
Restricted stock awards vesting	1,268,983	—	—	—	—	—	—	—
Compensation expense for equity awards	—	—	185	—	—	—	—	185
Units repurchased for payment of taxes on equity awards	—	—	(39)	—	—	—	—	(39)
Repurchase of common stock	(3,954,369)	—	(373)	—	—	—	—	(373)
Foreign currency translation loss	—	—	—	—	—	(147)	(12)	(159)
Amounts reclassified from accumulated other comprehensive loss to interest expense, net of tax	—	—	—	—	—	—	—	—
Unrealized holding losses on available for sale debt securities, net of tax	—	—	—	—	—	(2)	—	(2)
Contributions from non-controlling interests	—	—	—	—	—	—	1	1
Distributions to non-controlling interests	—	—	—	—	—	—	(5)	(5)
Acquisition of non-controlling interests	—	—	—	—	—	—	809	809
Other	—	—	(49)	—	—	3	(9)	(55)
Balance at December 31, 2021	332,875,959	3	799	8,367	(104)	(537)	831	9,359
Net income	—	—	—	1,407	—	—	17	1,424
Pension liability adjustments, net of tax	—	—	—	—	(15)	—	—	(15)
Restricted stock awards vesting	1,028,807	—	—	—	—	—	—	—
Compensation expense for equity awards	—	—	160	—	—	—	—	160
Units repurchased for payment of taxes on equity awards	—	—	(38)	—	—	—	—	(38)
Repurchase of common stock	(22,890,606)	—	(913)	(949)	—	—	—	(1,862)
Foreign currency translation loss	—	—	—	—	—	(315)	(94)	(409)

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

CBRE GROUP, INC.
CONSOLIDATED STATEMENTS OF EQUITY
(Dollars in millions, except share data)

	CBRE Group, Inc. Stockholders'							
					Accumulated other comprehensive loss			
	Shares	Class A common stock	Additional paid-in capital	Accumulated earnings	Minimum pension liability	Foreign currency translation and other	Non-controlling interests	Total
Amounts reclassified from accumulated other comprehensive loss to interest expense, net of tax	—	—	—	—	—	—	—	—
Unrealized holding losses on available for sale debt securities, net of tax	—	—	—	—	—	(6)	—	(6)
Contributions from non-controlling interests	—	—	—	—	—	—	2	2
Distributions to non-controlling interests	—	—	—	—	—	—	(1)	(1)
Other	—	—	(8)	8	—	(6)	(2)	(8)
Balance at December 31, 2022	311,014,160	3	—	8,833	(119)	(864)	753	8,606
Net income	—	—	—	986	—	—	41	1,027
Pension liability adjustments, net of tax	—	—	—	—	2	—	—	2
Restricted stock awards vesting	1,742,328	—	—	—	—	—	—	—
Compensation expense for equity awards	—	—	96	—	—	—	—	96
Units repurchased for payment of taxes on equity awards	—	—	(36)	(36)	—	—	—	(72)
Repurchase of common stock	(7,867,348)	—	(47)	(602)	—	—	—	(649)
Foreign currency translation gain	—	—	—	—	—	75	36	111
Amounts reclassified from accumulated other comprehensive loss to interest expense, net of tax	—	—	—	—	—	—	—	—
Contributions from non-controlling interests	—	—	—	—	—	—	6	6
Distributions to non-controlling interests	—	—	—	—	—	—	(42)	(42)
Other	—	—	(13)	7	—	(18)	6	(18)
Balance at December 31, 2023	304,889,140	$ 3	$ —	$ 9,188	$ (117)	$ (807)	$ 800	$ 9,067

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

CBRE GROUP, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of Operations

CBRE Group, Inc., a Delaware corporation (which may be referred to in these financial statements as "the company," "we," "us" and "our"), was incorporated on February 20, 2001. We are the world's largest commercial real estate services and investment firm, based on 2023 revenue, with leading global market positions in most lines of business we serve.

Our business is focused on providing services to real estate investors and occupiers. For investors, we provide capital markets (property sales and mortgage origination), mortgage servicing, property leasing, investment management, property management, valuation and development services, among others. For occupiers, we provide facilities management, project management, transaction (both property sales and leasing) and consulting services, among others. We generate revenue from both management fees (large multi-year portfolio and per-project contracts) and commissions on transactions. As of December 31, 2023, the company has more than 130,000 employees (including Turner & Townsend employees) serving clients in more than 100 countries providing services under the following brand names: "CBRE" (real estate advisory and outsourcing services); "CBRE Investment Management" (investment management); "Trammell Crow Company" (primarily U.S. development); "Telford Homes" (U.K. development) and "Turner & Townsend Holdings Limited" (Turner & Townsend).

2. Significant Accounting Policies

Principles of Consolidation

The accompanying consolidated financial statements include our accounts and those of our consolidated subsidiaries, which are comprised of variable interest entities in which we are the primary beneficiary and voting interest entities, in which we determined we have a controlling financial interest, under the "*Consolidations*" topic of the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) (Topic 810). The equity attributable to non-controlling interests in subsidiaries is shown separately in the accompanying consolidated balance sheets. All significant intercompany accounts and transactions have been eliminated in consolidation.

Variable Interest Entities (VIEs)

We determine whether an entity is a VIE and, if so, whether it should be consolidated by utilizing judgments and estimates that are inherently subjective. Our determination of whether an entity in which we hold a direct or indirect variable interest is a VIE is based on several factors, including whether the entity's total equity investment at risk upon inception is sufficient to finance the entity's activities without additional subordinated financial support. We make judgments regarding the sufficiency of the equity at risk based first on a qualitative analysis, and then a quantitative analysis, if necessary.

We analyze any investments in VIEs to determine if we are the primary beneficiary. In evaluating whether we are the primary beneficiary, we evaluate our direct and indirect economic interests in the entity. A reporting entity is determined to be the primary beneficiary if it holds a controlling financial interest in the VIE. Determining which reporting entity, if any, has a controlling financial interest in a VIE is primarily a qualitative approach focused on identifying which reporting entity has both: (i) the power to direct the activities of a VIE that most significantly impact such entity's economic performance; and (ii) the obligation to absorb losses or the right to receive benefits from such entity that could potentially be significant to such entity. Performance of that analysis requires the exercise of judgment.

We consider a variety of factors in identifying the entity that holds the power to direct matters that most significantly impact the VIE's economic performance including, but not limited to, the ability to direct financing, leasing, construction and other operating decisions and activities. In addition, we consider the rights of other investors to participate in those decisions, to replace the manager and to sell or liquidate the entity. We determine whether we are the primary beneficiary of a VIE at the time we become involved with a variable interest entity and reconsider that conclusion continually.

We consolidate any VIE of which we are the primary beneficiary and disclose significant VIEs of which we are not the primary beneficiary, if any, as well as disclose our maximum exposure to loss related to VIEs that are not consolidated (see Note 6).

CBRE GROUP, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Voting Interest Entities (VOEs)

For VOEs, we consolidate the entity if we have a controlling financial interest. We have a controlling financial interest in a VOE if: (i) for legal entities other than limited partnerships, we own a majority voting interest in the VOE or, for limited partnerships and similar entities, we own a majority of the entity's kick-out rights through voting limited partnership interests; and (ii) non-controlling shareholders or partners do not hold substantive participating rights and no other conditions exist that would indicate that we do not control the entity.

Debt and Equity Securities and Other Investments

Debt securities are classified as held to maturity when we have the positive intent and ability to hold the securities to maturity. Debt securities not classified as held to maturity are classified as available for sale. Available for sale debt securities are carried at their fair value and any difference between cost and fair value is recorded as an unrealized gain or loss, net of income taxes, and is reported as accumulated other comprehensive income (loss) in the consolidated statements of equity. Premiums and discounts are recognized in interest using the effective interest method. Realized gains and losses and declines in value resulting from credit losses on available for sale debt securities have not been significant. The cost of securities sold is based on the specific identification method. Interest and dividends on securities classified as available for sale are included in interest income.

Our investments in unconsolidated subsidiaries in which we have the ability to exercise significant influence over operating and financial policies, but do not control, or entities which are VIEs in which we are not the primary beneficiary are accounted for under the equity method in accordance with the *"Instruments - Equity Method and Joint Ventures"* topic of the FASB ASC (Topic 323). We eliminate transactions with such equity method subsidiaries to the extent of our ownership in such subsidiaries. Accordingly, our share of the earnings from these equity-method basis companies, generally recognized on a lag of three months or less, is included in consolidated net income. We have elected to account for certain eligible investments and related interests at fair value in accordance with the *"Financial Instruments"* topic of the FASB ASC (Topic 825).

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.

Equity investments that do not result in consolidation and are not accounted for under the equity method (primarily marketable equity securities) are measured at fair value with changes therein reflected in net income. Equity instruments that do not have readily determinable fair values and do not qualify for using the net asset value per share practical expedient in the *"Fair Value Measurements"* topic of the FASB ASC (Topic 820) are measured at cost, less any impairment, and adjusted for subsequent observable transactions for the same or similar investments of the same issuer.

Impairment Evaluation

Impairment losses on investments, other than available for sale debt securities and investments otherwise measured at fair value, are recognized upon evidence of other-than-temporary losses of value. When testing for impairment on investments that are not actively traded on a public market, we generally use a discounted cash flow approach to estimate the fair value of our investments and/or look to comparable activities in the marketplace. Management's judgment is required in developing the assumptions for the discounted cash flow approach. These assumptions include net asset values, internal rates of return, discount and capitalization rates, interest rates and financing terms, rental rates, timing of leasing activity, estimates of lease terms and related concessions, etc. When determining if impairment is other-than-temporary, we also look to the length of time and the extent to which fair value has been less than cost as well as the financial condition and near-term prospects of each investment. Based on our review, we did not record any significant other-than-temporary impairment losses during the years ended December 31, 2023, 2022 and 2021.

CBRE GROUP, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Use of Estimates

Our consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (GAAP), which require management to make estimates and assumptions about future events. These estimates and the underlying assumptions affect the amounts reported in our consolidated financial statements and accompanying notes. 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, other post-employment benefits, and loss contingencies, 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. Actual results may differ from these estimates and assumptions.

Cash and Cash Equivalents

Cash and cash equivalents generally consist of cash and highly liquid investments with an original maturity of three months or less. We also manage certain cash and cash equivalents as an agent for our investment and property and facilities management clients. These amounts are not included in the accompanying consolidated balance sheets (see *Fiduciary Funds* discussion below).

Restricted Cash

Included in the accompanying consolidated balance sheets as of December 31, 2023 and 2022 is restricted cash of $106.0 million and $86.6 million, respectively. The balances primarily include restricted cash set aside to cover funding obligations as required by contracts executed by us in the ordinary course of business.

Fiduciary Funds

The accompanying consolidated balance sheets do not include the net assets of escrow, agency and fiduciary funds, which are held by us on behalf of clients.

Concentration of Credit Risk

Financial instruments that potentially subject us to credit risk consist principally of trade receivables and interest-bearing investments. Users of real estate services account for a substantial portion of trade receivables and collateral is generally not required. The risk associated with this concentration is limited due to the large number of users and their geographic dispersion.

We place substantially all our interest-bearing investments with several major financial institutions to limit the amount of credit exposure with any one financial institution.

Property and Equipment

Property and equipment, which includes leasehold improvements, is stated at cost, net of accumulated depreciation and impairment. Depreciation and amortization of property and equipment is computed primarily using the straight-line method over estimated useful lives ranging up to 10 years. Leasehold improvements are amortized over the term of their associated leases, excluding options to renew unless we are reasonably certain that we will exercise the option to renew. We capitalize expenditures that significantly increase the life of our assets and expense the costs of maintenance and repairs.

We review property and equipment for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset or asset group may not be recoverable. If this review indicates that such assets are considered impaired, the impairment is recognized in the period the changes occur and represents the amount by which the carrying value exceeds the fair value of the asset or asset group.

Certain costs related to the development or purchase of internal-use software are capitalized. Internal-use software costs incurred in the preliminary project stage are expensed as incurred. Significant direct consulting costs and certain payroll and related costs, which are incurred during the development stage of a project are generally capitalized and amortized over a

three-year period (except for enterprise software development platforms, which range fromthree to seven years) when placed into production.

Real Estate

Classification and Impairment Evaluation

We classify real estate in accordance with the criteria of the "*Property, Plant and Equipment*" topic of the FASB ASC (Topic 360) as follows: (i) real estate held for sale, which includes completed assets or land for sale in its present condition that meet all of Topic 360's "held for sale" criteria; (ii) real estate under development (current), which includes real estate that we are in the process of developing that is expected to be completed and disposed of within one year of the balance sheet date; (iii) real estate under development (non-current), which includes real estate that we are in the process of developing that is expected to be completed and disposed of more than one year from the balance sheet date; or (iv) real estate held for investment, which consists of land on which development activities have not yet commenced and completed assets or land held for disposition that do not meet the "held for sale" criteria. Any asset reclassified from real estate held for sale to real estate held for investment is recorded individually at the lower of its fair value at the date of the reclassification or its carrying amount before it was classified as "held for sale," adjusted (in the case of real estate held for investment) for any depreciation that would have been recognized had the asset been continuously classified as real estate held for investment.

Real estate held for sale is recorded at the lower of cost or fair value less cost to sell. If an asset's fair value less cost to sell, based on discounted future cash flows, management estimates or market comparisons, is less than its carrying amount, an allowance is recorded against the asset. Real estate under development and real estate held for investment are carried at cost less depreciation and impairment, as applicable. Buildings and improvements included in real estate held for investment are depreciated using the straight-line method over estimated useful lives, generally up to 39 years. Tenant improvements included in real estate held for investment are amortized using the straight-line method over the shorter of their estimated useful lives or terms of the respective leases. Land improvements included in real estate held for investment are depreciated over their estimated useful lives, up to 15 years.

Real estate under development and real estate held for investment are evaluated for impairment and losses are recorded when undiscounted cash flows estimated to be generated by an asset are less than the asset's carrying amount. The amount of the impairment loss, if any, is calculated as the excess of the asset's carrying value over its fair value, which is determined using a discounted cash flow analysis, management estimates or market comparisons.

A summary of our real estate assets is as follows (dollars in millions):

	December 31,	
	2023	2022
Real estate under development, current (included in other current assets)	$ —	$ 193
Real estate and other assets held for sale (included in other current assets)	42	97
Real estate under development	300	172
Real estate held for investment (included in other assets, net)	179	45
Total real estate	$ 521	$ 507

Cost Capitalization and Allocation

When acquiring, developing, and constructing real estate assets, we capitalize recoverable costs. Capitalization begins when the activities related to development have begun and ceases when activities are substantially complete and the asset is available for occupancy. Recoverable costs capitalized include pursuit costs, or pre-acquisition/pre-construction costs, taxes and insurance, interest, development and construction costs and costs of incidental operations. We do not capitalize any internal costs when acquiring, developing, and constructing real estate assets. We expense transaction costs for acquisitions that qualify as a business in accordance with the "*Business Combinations*" topic of the FASB ASC (Topic 805). Pursuit costs capitalized in connection with a potential development project that we have determined not to pursue are written off in the period that determination is made.

At times, we purchase bulk land that we intend to sell or develop in phases. The land basis allocated to each phase is based on the relative estimated fair value of the phases before construction except for newly acquired held for sale phases which are measured at their fair value less cost to sell at the acquisition date. We allocate construction costs incurred relating to more

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

than one phase between the various phases; if the costs cannot be specifically attributed to a certain phase or the improvements benefit more than one phase, we allocate the costs between the phases based on their relative estimated sales values, where practicable, or other value methods as appropriate under the circumstances. Relative allocations of the costs are revised as the sales value estimates are revised.

When acquiring real estate with existing buildings, we allocate the purchase price between land, land improvements, building and intangibles related to in-place leases, if any, based on their relative fair values. The fair values of acquired land and buildings are determined based on an estimated discounted future cash flow model with lease-up assumptions as if the building was vacant upon acquisition. The fair value of in-place leases includes the value of lease intangibles for above or below-market rents and tenant origination costs, determined on a lease-by-lease basis. The capitalized values for both lease intangibles and tenant origination costs are amortized over the term of the underlying leases. Amortization related to lease intangibles is recorded as either an increase to or a reduction of rental income and amortization for tenant origination costs is recorded to amortization expense.

Disposition of Real Estate

We account for gains and losses on the sale of real estate and other nonfinancial assets or in substance nonfinancial assets to noncustomers that are not an output of our ordinary activities and are not a business in accordance with the *"Other Income – Gains and Losses from the Derecognition of Nonfinancial Assets"* topic of the FASB ASC (Topic 610-20). Where we do not have a controlling financial interest in the entity that holds the transferred assets after the transaction, we derecognize the assets or in substance nonfinancial assets and recognize a gain or loss when control of the underlying assets transfers to the counterparty.

We may also dispose of real estate through the transfer of a long-term leasehold representing a major part of the remaining economic life of the property. We account for these transfers as sales-type leases in accordance with the "*Leases*" topic of the FASB ASC (Topic 842) by derecognizing the carrying amount of the underlying asset, recognizing any net investment in the lease and recognizing selling profit or loss in net income.

Goodwill and Other Intangible Assets

Our acquisitions of businesses require the application of purchase accounting, which results in tangible and identifiable intangible assets and liabilities of the acquired entity being recorded at fair value. The difference between the purchase price and the fair value of net assets acquired is recorded as goodwill. Deferred consideration arrangements granted in connection with a business combination are evaluated to determine whether all or a portion is, in substance, additional purchase price or compensation for services. Additional purchase price is added to the fair value of consideration transferred in the business combination and compensation is included in operating expenses in the period it is incurred.

We are required to test goodwill and other intangible assets deemed to have indefinite useful lives for impairment at least annually, or more often if circumstances or events indicate a change in the impairment status, in accordance with FASB ASC (Topic 350), "*Intangibles – Goodwill and Other.*" The guidance permits, but does not require an entity to perform a qualitative assessment with respect to any of its reporting units or indefinite-lived intangible assets to determine whether a quantitative impairment test is needed. Entities are permitted to assess based on qualitative factors whether it is more likely than not that a reporting unit's or indefinite-lived intangible asset's fair value is less than its carrying amount before applying the quantitative impairment test. If it is more likely than not that the fair value of a reporting unit or indefinite-lived intangible asset is less than its carrying amount, the entity conducts the quantitative impairment test. If not, the entity does not need to apply the quantitative test. The qualitative test is elective, and an entity can go directly to the quantitative test rather than making a more-likely-than-not assessment based on an evaluation of qualitative factors. When performing a quantitative test, we primarily use a discounted cash flow approach to estimate the fair value of our reporting units and indefinite-lived intangible assets. Management's judgment is required in developing the assumptions for the discounted cash flow model. These assumptions include revenue growth rates, profit margin percentages, discount rates, etc. We record an impairment loss when the amount by which a reporting unit's or indefinite-lived intangible asset's carrying value exceeds its fair value, not to exceed the carrying amount of the goodwill or indefinite-lived intangible asset.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Business Combinations

We estimate the fair value of identifiable assets, liabilities and any non-controlling interests acquired in a business combination and recognize goodwill as the excess of the purchase price over the recorded value of the acquired assets and liabilities in accordance with FASB ASC (Topic 805). When estimating the fair value of acquired assets, we utilize various valuation models which may require significant judgment, particularly where observable market values do not exist. Inputs requiring significant judgment may include discount rates, growth rates, cost of capital, royalty rates, tax rates, market values, depreciated replacement costs, selling prices less costs to dispose, and remaining useful lives, among others. Reasonable differences in these inputs could have a significant impact on the estimated value of acquired assets, the resulting value of goodwill, subsequent depreciation and amortization expense, and the results of future asset impairment evaluations.

Leases

We are the lessee in contracts for our office space tenancies, for leased vehicles, and for some leases of land in our global development business. We monitor our service arrangements to evaluate whether they meet the definition of a lease.

The present value of lease payments, which are either fixed payments, in-substance fixed payments, or variable payments tied to an index or rate are recognized on the consolidated balance sheet with corresponding lease liabilities and right-of-use assets upon the commencement of the lease. These lease costs are expensed over the respective lease term in accordance with the classification of the lease (i.e., operating versus finance classification). Variable lease payments not tied to an index or rate are expensed as incurred and are not subject to capitalization.

The base terms for our lease arrangements typically do not extend beyond10 years, except for land leases. We commonly have renewal options in our leases, but most of these options do not create a significant economic incentive for us to extend the lease term. Therefore, payments during periods covered by these renewal options are typically not included in our lease liabilities and right-of-use assets. Specific to our vehicle leases, early termination options are common and economic penalties associated with early termination of these contracts are typically significant enough to make it reasonably certain that we will not exercise such options. Therefore, payments during periods covered by these early termination options in vehicle leases are typically included in our lease liabilities and right-of-use assets. As an accounting policy election, our short-term leases with an initial term of 12 months or less are not recognized as lease liabilities and right-of-use assets in the consolidated balance sheets. The rent expense associated with short term leases is recognized on a straight-line basis over the lease term and was not significant.

Most of our office space leases include variable payments based on our share of actual common area maintenance and operating costs of the leased property. Many of our vehicle leases include variable payments based on actual service and fuel costs. For both office space and vehicle leases, we have elected the practical expedient to not separate lease components from non-lease components. Therefore, these costs are classified as variable lease payments.

Lease payments are typically discounted at our incremental borrowing rate because the interest rate implicit in the lease cannot be readily determined in the absence of key inputs which are typically not reported by our lessors. Because we do not generally borrow on a collateralized basis, judgement was used to estimate the secured borrowing rate associated with our leases based on relevant market data and our inputs applied to accepted valuation methodologies. The incremental borrowing rate calculated for each lease also reflects the lease term, currency, and geography specific to each lease.

Deferred Financing Costs

Costs incurred in connection with financing activities are generally deferred and amortized over the terms of the related debt agreements ranging up tœleven years. Debt issuance costs related to a recognized debt liability are presented in the accompanying consolidated balance sheets as a direct deduction from the carrying amount of that debt liability. Amortization of these costs is charged to interest expense in the accompanying consolidated statements of operations. Accounting Standards Update (ASU) 2015-15, *"Interest—Imputation of Interest (Subtopic 835-30): Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements"* permits classifying debt issuance costs associated with a line of credit arrangement as an asset, regardless of whether there are any outstanding borrowings on the arrangement. Total deferred financing costs, net of accumulated amortization, related to our revolving line of credit have been included in other assets in the accompanying consolidated balance sheets and were $8.7 million and $11.1 million as of December 31, 2023 and 2022, respectively.

See Note 11 for additional information on activities associated with our debt.

Revenue Recognition

We account for revenue with customers in accordance with the "*Revenue from Contracts with Customers*" topic of the FASB ASC (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.

The following is a description of principal activities – separated by reportable segments – from which we generate revenue. For more detailed information about our reportable segments, see Notes 18 and 19.

Advisory Services

Our Advisory Services segment provides a comprehensive range of services globally, including property leasing, property sales, mortgage services, property management and valuation services.

Property Leasing and Property Sales

We provide strategic advice and execution for owners, investors, and occupiers of real estate in connection with the leasing of office, industrial and retail space. We also offer clients fully integrated property sales services under the CBRE Capital Markets brand. We are compensated for our services in the form of a commission and, in some instances, may earn various forms of variable incentive consideration. Our commission is paid upon the occurrence of certain contractual event(s) which may be contingent. For example, a portion of our leasing commission may be paid upon signing of the lease by the tenant, with the remaining paid upon occurrence of another future contingent event (e.g., payment of first month's rent or tenant move-in). For leases, we typically satisfy our performance obligation at a point in time when control is transferred; generally, at the time of the first contractual event where there is a present right to payment. We look to history, experience with a customer, and deal specific considerations as part of the most likely outcome estimation approach to support our judgement that the second contingency (if applicable) will be met. Therefore, we typically accelerate the recognition of the revenue associated with the second contingent event. For sales, our commission is typically paid at the closing of the sale, which represents transfer of control for services to the customer.

In addition to our commission, we may recognize other forms of variable consideration which can include, but are not limited to, commissions subject to concession or claw back and volume-based discounts or rebates. We assess variable consideration on a contract-by-contract basis, and when appropriate, recognize revenue based on our assessment of the outcome (using the most likely outcome approach or weighted probability) and historical results, if comparable and representative. We recognize variable consideration if it is deemed probable that there will not be significant reversal in the future.

Mortgage Originations and Loan Sales

We offer clients commercial mortgage and structured financing services. Fees from services within our mortgage brokerage business that are in the scope of Topic 606 include fees earned for the brokering of commercial mortgage loans primarily through relationships established with investment banking firms, national and regional banks, credit companies, insurance companies and pension funds. We are compensated for our brokerage services via a fee paid upon successful placement of a commercial mortgage borrower with a lender who will provide financing. The fee earned is contingent upon the funding of the loan, which represents the transfer of control for services to the customer. Therefore, we typically satisfy our performance obligation at the point in time of the funding of the loan. Revenue from fees earned from Government-Sponsored Enterprises (GSEs) are out of the scope of Topic 606.

We also earn fees from the origination and sale of commercial mortgage loans for which the company retains the servicing rights. These fees are governed by the "*Fair Value Measurements and Disclosures*" topic (Topic 820) and "*Transfers and Servicing*" topic (Topic 860) of the FASB ASC. Upon origination of a mortgage loan held for sale, the fair value of the mortgage servicing rights (MSR) 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). Upon sale, we record a servicing asset or liability based on the fair value of the retained MSR associated with the transferred loan. Subsequent to the initial recording, MSRs are amortized 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.

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Property Management Services

We provide property management services on a contractual basis for owners of and investors in office, industrial and retail properties. These services include marketing, building engineering, accounting, and financial services. We are compensated for our services through a monthly management fee earned based on either a specified percentage of the monthly rental income, rental receipts generated from the property under management or a fixed fee. We are also often reimbursed for our administrative and payroll costs directly attributable to the properties under management. Property management services represent a series of distinct daily services rendered over time. Consistent with the transfer of control for distinct, daily services to the customer, revenue is recognized at the end of each period for the fees associated with the services performed. The amount of revenue recognized is presented gross for any services provided by our employees, as we control them. We generally do not control third-party services delivered to property management clients. As such, we generally report revenues net of third-party reimbursements.

Valuation Services

We provide valuation services that include market-value appraisals, litigation support, discounted cash flow analyses, feasibility studies as well as consulting services such as property condition reports, hotel advisory and environmental consulting. We are compensated for valuation services in the form of a fee, which is payable on the occurrence of certain events (e.g., a portion on the delivery of a draft report with the remaining on the delivery of the final report). For consulting services, we may be paid based on the occurrence of time or event-based milestones (such as the delivery of draft reports). We typically satisfy our performance obligation for valuation services as services are rendered over time.

Global Workplace Solutions

Our Global Workplace Solutions segment provides a broad suite of integrated, contractually-based outsourcing services globally for occupiers of real estate, including facilities management, and project management services.

Facilities Management and Project Management Services

Facilities management involves the day-to-day management of client-occupied space and includes headquarters, regional offices, administrative offices, data centers and other critical facilities, manufacturing and laboratory facilities, distribution facilities and retail space. Contracts for facilities management services are often structured so we are reimbursed for client-dedicated personnel costs and subcontracted vendor costs as well as associated overhead expenses plus a monthly fee, and, in some cases, annual incentives tied to agreed upon performance targets, with any penalties typically capped. In addition, we have contracts for facilities management services based on fixed fees or guaranteed maximum prices. Fixed fee contracts are typically structured where an agreed upon scope of work is delivered for a fixed price while guaranteed maximum price contracts are structured with an agreed upon scope of work that will be provided to the client for a not to exceed price. Facilities management services represent a series of distinct daily services rendered over time. Consistent with the transfer of control for distinct, daily services to the customer, revenue is typically recognized at the end of each period for the fees associated with the services performed.

Project management services are often provided on a portfolio wide or programmatic basis. Revenues from project management services generally include construction management, fixed management fees, variable fees, and incentive fees if certain agreed upon performance targets are met. Revenues from project management may also include reimbursement of payroll and related costs for personnel providing the services and subcontracted vendor costs. Project management services represent a series of distinct daily services rendered over time. Consistent with the transfer of control for distinct, daily services to the customer, revenue is typically recognized at the end of each period for the fees associated with the services performed.

The amount of revenue recognized is presented gross for any services provided by our employees, as we control them. This is evidenced by our obligation for their performance and our ability to direct and redirect their work, as well as negotiate the value of such services. The amount of revenue recognized related to the majority of facilities management contracts and certain project management arrangements is presented gross (with offsetting expense recorded in cost of revenue) for reimbursements of costs of third-party services because we control those services that are delivered to the client. In the instances when we do not control third-party services delivered to the client, we report revenues net of the third-party reimbursements.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

In addition to our management fee, we receive various types of variable consideration which can include but is not limited to key performance indicator bonuses or penalties which may be linked to subcontractor performance, gross maximum price, glidepaths, savings guarantees, shared savings, or fixed fee structures. We assess variable consideration on a contract-by-contract basis, and when appropriate, recognize revenue based on our assessment of the outcome (using the most likely outcome approach or weighted probability) and historical results, if comparable and representative. Using management assessments and historical results and statistics, we recognize revenue if it is deemed probable there will not be significant reversal in the future.

Real Estate Investments

Our Real Estate Investments segment is comprised of investment management services provided globally and development services in the U.S., the U.K. and Continental Europe.

Investment Management Services

Our investment management services are provided to pension funds, insurance companies, sovereign wealth funds, foundations, endowments, and other institutional investors seeking to generate returns and diversification through investment in real assets. We sponsor investment programs that span the risk/return spectrum in North America, Europe, Asia, and Australia. We are typically compensated in the form of a base management fee, disposition fees, acquisition fees and incentive fees in the form of performance fees or carried interests based on fund type (open or closed ended, respectively). For the base management fees, we typically satisfy the performance obligation as service is rendered over time pursuant to the series guidance. Consistent with the transfer of control for distinct, daily services to the customer, revenue is recognized at the end of each period for the fees associated with the services performed. For acquisition and disposition services, we typically satisfy the performance obligation at a point in time (at acquisition or upon disposition). For contracts with contingent fees, including performance fees, incentive fees and carried interests, we assess variable consideration on a contract-by-contract basis, and when appropriate, recognize revenue based on our assessment of the outcome (using the most likely outcome approach or weighted probability) and historical results, if comparable and representative. Revenue associated with performance fees and carried interests are typically impacted by volatility in the real estate market, a broad range of possible outcomes, and other factors in the market that are outside of our control.

Development Services

Our development services consist of real estate development and investment activities in the U.S., the U.K. and Europe to users of and investors in commercial real estate, as well as for our own account.

We pursue opportunistic, risk-mitigated development and investment in commercial real estate across a wide spectrum of property types, including industrial, office and retail properties; healthcare facilities of all types (medical office buildings, hospitals and ambulatory surgery centers); and multi-family residential/mixed-use projects. We pursue development and investment activity on behalf of our clients on a fee basis with no, or limited, ownership interest in a property, in partnership with our clients through co-investment – either on an individual project basis or through programs with certain strategic capital partners or for our own account with 100% ownership. Development services represent a series of distinct daily services rendered over time. Consistent with the transfer of control for distinct, daily services to the customer, revenue is recognized at the end of each period for the fees associated with the services performed. Fees are typically payable monthly over the service term or upon contractual defined events, like project milestones. In addition to development fee revenue, we receive various types of variable consideration which can include, but is not limited to, contingent lease-up bonuses, cost saving incentives, profit sharing on sales and at-risk fees. We assess variable consideration on a contract-by-contract basis, and when appropriate, recognize revenue based on our assessment of the outcome (using the most likely outcome approach or weighted probability) and historical results, if comparable and representative. We accelerate revenue if it is deemed probable there will not be significant reversal in the future. Sales of real estate to customers which are considered an output of ordinary activities are recognized as revenue when or as control of the assets are transferred to the customer.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Accounts Receivable and Allowance for Doubtful Accounts

We record accounts receivable for our unconditional rights to consideration arising from our performance under contracts with customers. The carrying value of such receivables, net of the allowance for doubtful accounts, represents their estimated net realizable value. We estimate our allowance for doubtful accounts for specific accounts receivable balances based on historical collection trends, the age of outstanding accounts receivables and existing economic conditions associated with the receivables. Past-due accounts receivable balances are written off when our internal collection efforts have been unsuccessful. As a practical expedient, we do not adjust the promised amount of consideration for the effects of a significant financing component when we expect, at contract inception, that the period between our transfer of a promised service to a customer and when the customer pays for that service will be one year or less. We do not typically include extended payment terms in our contracts with customers.

Remaining Performance Obligations

Remaining performance obligations represent the aggregate transaction prices for contracts where our performance obligations have not yet been satisfied. As of December 31, 2023, the aggregate amount of transaction price allocated to remaining performance obligations in our property leasing business was not significant. We apply the practical expedient related to remaining performance obligations that are part of a contract that has an original expected duration of one year or less and the practical expedient related to variable consideration from remaining performance obligations pursuant to the series guidance. All of our remaining performance obligations apply to one of these practical expedients.

Contract Assets and Contract Liabilities

Contract assets represent assets for revenue that has been recognized in advance of billing the customer and for which the right to bill is contingent upon something other than the passage of time. This is common for contingent portions of commissions in brokerage, development and construction revenue in development services and incentive fees present in various businesses. Billing requirements vary by contract but are generally structured around fixed monthly fees, reimbursement of employee and other third-party costs, and the achievement or completion of certain contingent events.

When we receive consideration, or such consideration is unconditionally due, from a customer prior to transferring services to the customer under the terms of the services contract, we record deferred revenue, which represents a contract liability. We recognize the contract liability as revenue once we have transferred control of the service to the customer and all revenue recognition criteria are met.

Contract assets and contract liabilities are determined for each contract on a net basis. For contract assets, we classify the short-term portion as a separate line item within current assets and the long-term portion as a separate line item in the accompanying consolidated balance sheets. For contract liabilities, we classify the short-term portion as a separate line item within current liabilities and the long-term portion within other liabilities, long-term in the accompanying consolidated balance sheets.

Contract Costs

Contract costs, accounted for under "*Other Assets and Deferred Costs – Contracts with Customers*," topic of the FASB ASC (Topic 340-10) primarily consist of upfront costs incurred to obtain or to fulfill a contract. These costs are typically found within our Global Workplace Solutions segment. Such costs relate to transition costs to fulfill contracts prior to services being rendered and are included within other intangible assets in the accompanying consolidated balance sheets. Capitalized transition costs are amortized based on the transfer of services to which the assets relate which can vary on a contract-by-contract basis and are included in cost of revenue in the accompanying consolidated statement of operations. For contract costs that are recognized as assets, we periodically review for impairment.

Applying the contract cost practical expedient, we recognize the incremental costs of obtaining contracts as an expense when incurred if the amortization period of the assets that we otherwise would have recognized is one year or less.

Business Promotion and Advertising Costs

The costs of business promotion and advertising are expensed as incurred. Business promotion and advertising costs of $74.4 million, $85.1 million and $68.9 million were included in operating, administrative and other expenses for the years ended December 31, 2023, 2022 and 2021, respectively.

Foreign Currencies

The financial statements of subsidiaries located outside the U.S. are generally measured using the local currency as the functional currency. The assets and liabilities of these subsidiaries are translated at the rates of exchange at the balance sheet date, and income and expenses are translated at the average monthly rate. The resulting translation adjustments are included in the accumulated other comprehensive income/loss component of equity. Gains and losses resulting from foreign currency transactions are included in the results of operations.

Comprehensive Income

Comprehensive income consists of net income and other comprehensive income/loss. In the accompanying consolidated balance sheets, accumulated other comprehensive income/loss primarily consists of foreign currency translation adjustments, qualified derivative activities, unrealized holding gains on available for sale debt securities and pension liability adjustments. Foreign currency translation adjustments exclude any income tax effects given that earnings of non-U.S. subsidiaries are deemed to be reinvested for an indefinite period of time (see Note 15).

Warehouse Receivables

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 December 31, 2023 and 2022, 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.

Mortgage Servicing Rights (MSRs)

In connection with the origination and sale of mortgage loans with servicing rights retained, we record servicing assets or liabilities based on the fair value of the mortgage servicing rights on the date the loans are sold. Our MSRs are initially recorded at fair value. Subsequent to the initial recording, MSRs are amortized 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 net servicing income is expected to be received based on projections and timing of estimated future net cash flows.

Our initial recording of MSRs at their fair value resulted in net gains, as the fair value of servicing contracts that result in MSR assets exceeded the fair value of servicing contracts that result in MSR liabilities. The net assets and net gains are presented in the accompanying consolidated financial statements. The amount of MSRs recognized during the years ended December 31, 2023, 2022 and 2021 was as follows (dollars in millions):

	Year Ended December 31,		
	2023	**2022**	**2021**
Beginning balance, mortgage servicing rights	$ 561	$ 579	$ 557
Mortgage servicing rights recognized	82	146	194
Mortgage servicing rights sold	—	—	—
Amortization expense	(144)	(164)	(172)
Ending balance, mortgage servicing rights	$ 499	$ 561	$ 579

CBRE GROUP, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

MSRs do not actively trade in an open market with readily available observable prices; therefore, fair value is determined based on certain assumptions and judgments, including the estimation of the present value of future cash flows realized from servicing the underlying mortgage loans. Management's assumptions include the benefits of servicing (servicing fee income and interest on escrow deposits), inflation, the cost of servicing, prepayment rates, delinquencies, discount rates and the estimated life of servicing cash flows. The assumptions used are subject to change based on management's judgments and estimates of changes in future cash flows and interest rates, among other things. The key assumptions used during the years ended December 31, 2023, 2022 and 2021 in measuring fair value were as follows:

	Year Ended December 31,		
	2023	**2022**	**2021**
Weighted average discount rate	12.96 %	12.87 %	12.62 %
Weighted average conditional prepayment rate	11.97 %	10.12 %	9.78 %

The estimated fair value of our MSRs was $1.2 billion, $1.1 billion and $891.0 million as of December 31, 2023, 2022 and 2021, respectively. Impairment is evaluated through a comparison of the carrying amount and fair value of the MSRs, and recognized with the establishment of a valuation allowance. We did not incur any impairment charges related to our MSRs during the years ended December 31, 2023, 2022 or 2021. No valuation allowance was created previously and we did not record a valuation allowance for MSRs in 2023, 2022, or 2021.

Included in revenue in the accompanying consolidated statements of operations are contractually specified servicing fees from loans serviced for others of $315.5 million, $309.5 million and $288.0 million for the years ended December 31, 2023, 2022 and 2021, respectively, and includes prepayment fees/late fees earned from loans serviced for others of $5.3 million, $22.7 million and $41.7 million for the years ended December 31, 2023, 2022 and 2021, respectively. Additionally, also recorded in revenue, was ancillary income of $108.4 million, $22.6 million and $9.8 million for years ended December 31, 2023, 2022 and 2021, respectively, generated on the loan servicing float.

Accounting for Broker Draws

As part of our recruitment efforts relative to new U.S. brokers, we offer a transitional broker draw arrangement. Our broker draw arrangements generally last until such time as a broker's pipeline of business is sufficient to allow the broker to earn sustainable commissions. This program is intended to provide the broker with a minimal amount of cash flow to allow adequate time for his or her training as well as time for him or her to develop business relationships. Similar to traditional salaries, the broker draws are paid irrespective of the actual revenues generated by the broker. Often these broker draws represent the only form of compensation received by the broker. Furthermore, it is not our general policy to pursue collection of unearned broker draws paid under this arrangement. As a result, we have concluded that broker draws are economically equivalent to salaries paid and accordingly charge them to compensation expense as incurred over the service period. The broker is also entitled to earn a commission on completed revenue transactions, less any amounts previously paid to the broker in the form of a draw.

Stock-Based Compensation

We account for all employee awards under the fair value recognition provisions of the "*Compensation – Stock Compensation*" topic of the FASB ASC (Topic 718). Topic 718 requires the measurement of compensation cost at the grant date, based upon the estimated fair value of the award, and requires amortization of the related expense over the employee's requisite service period. We do not estimate forfeitures, but instead recognize forfeitures when they occur. See Note 14 for additional information on our stock-based compensation plans.

Income Per Share

Basic income per share attributable to CBRE Group, Inc. is computed by dividing net income attributable to CBRE Group, Inc. stockholders by the weighted average number of common shares outstanding during each period. The computation of diluted income per share attributable to CBRE Group, Inc. generally further assumes the dilutive effect of potential common shares, which include certain contingently issuable shares. Contingently issuable shares consist of non-vested stock awards.

Income Taxes

Income taxes are accounted for under the asset and liability method in accordance with the "*Accounting for Income Taxes*" topic of the FASB ASC (Topic 740). Deferred tax assets and liabilities are determined based on temporary differences between the financial reporting and tax basis of assets and liabilities and operating loss and tax credit carry forwards. Deferred tax assets and liabilities are measured by applying enacted tax rates and laws and are released in the years in which the temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Valuation allowances are provided against deferred tax assets when it is more likely than not that some portion or all the deferred tax asset will not be realized.

We utilize a two-step approach to recognizing and measuring uncertain tax positions. The first step is to evaluate the tax position for recognition by determining if the available evidence indicates it is more than likely that the position will be sustained upon examination, including resolution of related appeals or litigation processes. The second step is to measure the tax benefit as the largest amount which is more than likely of being realized upon ultimate settlement.

See Note 15 for additional information on income taxes.

Self-Insurance

Our wholly-owned captive insurance company, which is subject to applicable insurance rules and regulations, insures our exposure related to workers' compensation insurance, general liability insurance and automotive insurance for our U.S. operations risk on a primary basis and we purchase excess coverage from unrelated insurance carriers. The captive insurance company also insures primary risk relating to professional indemnity claims globally. Given the nature of these types of claims, it may take several years for resolution and determination of the cost of these claims. We are required to estimate the cost of these claims in our financial statements.

The estimates that we utilize to record our potential losses on claims are inherently subjective, and actual claims could differ from amounts recorded, which could result in increased or decreased expense in future periods. As of December 31, 2023 and 2022, our reserves for claims under these insurance programs were $179.9 million and $167.9 million, respectively, of which $3.6 million and $3.0 million, respectively, represented our estimated current liabilities.

Contingencies

Pursuant to FASB ASC Topic 450, we evaluate whether any conditions existed as of the financial statement issuance date which may result in a loss contingent upon one or more future events occurring or not occurring. Assessing contingent liabilities involves significant judgment. If the assessment indicates that a loss is probable and the amount is reasonably estimable, we accrue an estimated liability in our financial statements. If the assessment indicates that a potentially material loss contingency is not probable but is reasonably possible, or is probable but cannot be estimated, then the nature of the contingent liability and an estimate of the range of potential losses, if determinable and material, would be disclosed. We determine the amount of estimated liability to accrue, if any, after thorough evaluation of key information available that could impact the size and timing of the potential loss on a case-by-case basis. Given the significant judgment involved with such estimates, the potential liability may change in the future as new information becomes available. We do not recognize gain contingencies until the contingency is completely resolved and the associated amounts are probable of collection.

Derivatives and Hedging Activities

Derivative instruments are carried at fair value in the accompanying consolidated balance sheets in either accounts payable and accrued expenses, other liabilities or other assets. We do not net derivatives on our balance sheet. The change in fair value of derivatives that have been designated in qualifying fair value hedges are recognized in the same financial statement line item that the hedged item impacts. Changes in fair value due to components that have been excluded from effectiveness assessments are accumulated in other comprehensive income (loss), and released to earnings in a systematic and rational approach. Cash flows arising from derivative instruments are classified within the consolidated statements of cash flows within the same category that the cash flows from the item being hedged.

Derivative instruments that are designated as hedging instruments and qualify for hedge accounting must be highly effective in mitigating the designated changes in fair value or cash flows of the hedged item. We assess at the hedge's inception, and continue to assess on a quarterly basis, whether the derivatives that are used in hedging transactions have been and are expected to be highly effective in offsetting changes in the hedged items. We may enter into derivative contracts that are intended to economically hedge certain of our risk, even though we may not elect to apply hedge accounting. In all cases, we view derivative financial instruments as a risk management tool and, accordingly, do not use derivatives for trading or speculative purposes.

During 2023, we had a single cross-currency swap to hedge the changes in fair value of foreign currency denominated term loan (see Note 11 for additional information on the term loan) due to changes in spot foreign currency rates. The impact of the fair value of the swap was deemed immaterial to the accompanying consolidated financial statements.

Employee Separation Benefits

One-time termination benefits are expensed at the date the company notifies the employee, unless the employee must provide future service, in which case the benefits are expensed ratably over the future service period. Ongoing benefits are expensed when restructuring activities are probable and the benefit amounts are estimable.

3. New Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In October 2021, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2021-08, *"Accounting for Contract Assets and Contract Liabilities from Contracts with Customers."* This ASU requires that an acquirer entity in a business combination recognize and measure contract assets and liabilities acquired in a business combination at the acquisition date in accordance with Topic 606 as if the acquirer entity had originated the contracts. This ASU is effective for fiscal years beginning after December 15, 2022, and interim periods within those years. Early application of the amendments is permitted but should be applied to all acquisitions occurring in the annual period of adoption. The amendment should be applied prospectively to business combinations occurring on or after the effective date of the amendments. We adopted ASU 2021-08 in the first quarter of 2023 and the adoption did not have a material impact on our consolidated financial statements and related disclosures.

In March 2022, the FASB issued ASU 2022-01, *"Derivatives and Hedging (Topic 815): Fair Value Hedging - Portfolio Layer Method."* This ASU allows nonprepayable financial assets to be included in a closed portfolio hedged using the portfolio layer method. The expanded scope permits an entity to apply the same portfolio hedging method to both prepayable and nonprepayable financial assets, thereby allowing consistent accounting for similar hedges. This guidance is effective for fiscal years beginning after December 15, 2022, and interim periods within those fiscal years. We adopted ASU 2022-01 in the first quarter of 2023 and the adoption did not have a material impact on our consolidated financial statements and related disclosures.

In March 2022, the FASB issued ASU 2022-02, *"Financial Instruments - Credit Losses (Topic 326): Troubled Debt Restructuring and Vintage Disclosures."* This ASU eliminates the accounting guidance for Troubled Debt Restructuring by creditors in 310-40 and enhances disclosure requirements for certain loan refinancings and restructurings by creditors when a borrower is experiencing financial difficulty. Additionally, this ASU requires entities to disclose current-period gross writeoffs by year of origination for financing receivables and net investments in leases within the scope of ASC 326-20. This guidance is effective for fiscal years beginning after December 15, 2022, and interim periods within those fiscal years. We adopted ASU 2022-02 in the first quarter of 2023 and the adoption did not have a material impact on our consolidated financial statements and related disclosures.

In September 2022, the FASB issued ASU 2022-04, *"Supplier Finance Programs (Sub Topic 405-50): Disclosure of Supplier Finance Program Obligations."* This ASU requires a buyer in a supplier finance program to disclose qualitative and quantitative information about its supplier finance programs in each annual reporting period including the key terms of the program and the following for obligations that the buyer has confirmed as valid to the provider: (1) the amount outstanding that remains unpaid by the buyer as of the end of the annual period, (2) a description of where those obligations are presented in the balance sheet, and (3) a rollforward of those obligations during the annual period, including the amount of obligations confirmed and the amount of obligations subsequently paid. Additionally, in each interim period, the buyer should disclose the amount of obligations outstanding that the buyer has confirmed as valid to the finance provider as of the end of the interim period. This guidance is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, except for the amendment on rollforward information, which is effective for fiscal years beginning after December 15, 2023. Early adoption is permitted. We adopted ASU 2022-04 in the first quarter of 2023 and the adoption did not have a material impact on our consolidated financial statements and related disclosures.

Recent Accounting Pronouncements Pending Adoption

In June 2022, the FASB issued ASU 2022-03, *"Fair Value Measurement (Topic 820): Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions."* Topic 820, Fair Value Measurement, states that a reporting entity should consider the characteristics of the asset or liability when measuring the fair value, including restrictions on the sale of the asset or liability, if a market participant would take those characteristics into account and the key to that determination is the unit of account for the asset or liability being measured at fair value. Topic 820 contains conflicting guidance on what the unit of account is when measuring the fair value of an equity security and this has resulted in diversity in practice on whether the effects of a contractual restriction that prohibits the sale of an equity security should be considered in measuring the equity security's fair value. To address this, the amendments in the ASU clarify that a contractual restriction on the sale of an equity security is not considered part of the unit of account of the equity security and, therefore, is not considered in measuring fair value. The ASU introduces new disclosure requirements to provide investors with information about the restriction including the nature and remaining duration of the restriction. This guidance is effective for fiscal years beginning after December 15, 2023, and interim periods within those fiscal years. We are evaluating the effect that this guidance will have on our consolidated financial statements and related disclosures, but do not expect it to have a material impact.

In March 2023, the FASB issued ASU 2023-01, *"Leases (Topic 842): Common Control Arrangements."* This update requires that leasehold improvements associated with common control leases be amortized over the useful life of the leasehold improvements to the common control group (regardless of the lease term) and accounted for as a transfer between entities under common control through an adjustment to equity if, and when, the lessee no longer controls the use of the underlying asset. This update also provides a practical expedient for private companies and not-for-profit entities to use written terms and conditions of a common control arrangement to determine if a lease exists and the classification and accounting for that lease. This guidance is effective for fiscal years beginning after December 15, 2023, and interim periods within those fiscal years. We are evaluating the effect that this guidance will have on our consolidated financial statements and related disclosures, but do not expect it to have a material impact.

In March 2023, the FASB issued ASU 2023-02, *"Investments – Equity Method and Joint Ventures (Topic 323): Accounting for Investments in Tax Credit Structures Using the Proportional Amortization method."* This update permits an accounting election to account for tax equity investments, regardless of the tax credit program from which the income tax credits are received, using the proportional amortization method if certain conditions are met. This guidance is effective for fiscal years beginning after December 15, 2023, and interim periods within those fiscal years. We are evaluating the effect that this guidance will have on our consolidated financial statements and related disclosures, but do not expect it to have a material impact.

In November 2023, the FASB issued ASU 2023-07, *"Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures."* This update enhances reportable segment disclosures by requiring a public entity to: 1) disclose, on an annual and interim basis, significant segment expenses that are regularly provided to the chief operating decision maker (CODM) and included within each reported measure of segment profit or loss, 2) disclose, on an annual and interim basis, an amount of *other segment items* by reportable segment and a description of its composition, 3) provide all annual disclosures about a reportable segment's profit or loss and assets currently required by Topic 280 in interim periods, 4) disclose the title and position of the CODM and an explanation of how the CODM uses the reported measure(s) of segment profit or loss in assessing segment performance and deciding how to allocate resources, and 5) provide all the disclosures required by this update and all existing segment disclosures in Topic 280 if the entity has a single reportable segment. This ASU also clarifies that, in addition to the measure that is most consistent with the measurement principles under GAAP, a public entity is not precluded from reporting additional measures of a segment's profit or loss that are used by the CODM in assessing segment performance and deciding how to allocate resources. This guidance is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. We are evaluating the effect that this guidance will have on our consolidated financial statements and related disclosures.

In December 2023, the FASB issued ASU 2023-09, *"Improvements to Income Tax Disclosures."* This ASU requires disaggregated information about a reporting entity's effective tax rate reconciliation as well as information on income taxes paid and will be effective for annual periods beginning after December 15, 2024. The new requirements should be applied on a prospective basis with an option to apply them retrospectively. Early adoption is permitted. We are evaluating the impact that ASU 2023-09 will have on our consolidated financial statements and related disclosures.

4. Acquisitions

2023 Acquisitions

During the year ended December 31, 2023, the company completed sixteen in-fill business acquisitions, includingnine in the Advisory Services segment, six in the Global Workplace Solutions segment and one in the Real Estate Investments segment, with an aggregate purchase price of approximately $311.5 million in cash and non-cash consideration. Assets acquired and liabilities assumed are primarily working capital in nature. The results of operations of all acquisitions completed during the year ended 2023 have been included in the company's consolidated financial results since their respective acquisition dates. These acquisitions were not significant in relation to the company's consolidated financial results and, therefore, pro-forma financial information has not been presented.

The following table identifies the company's allocation of purchase price to goodwill and other intangible assets by category (dollars in millions):

	Amount Assigned at Acquisition Date	Weighted-Average Life (in years)
Goodwill	$ 199	N/A
Customer relationships	75	10 years
Other intangible assets	7	4 years
Total	$ 281	

2022 Acquisitions

During the year ended December 31, 2022, the company did not have acquisitions that were deemed material either individually or in the aggregate.

2021 Acquisitions

Turner and Townsend

On November 1, 2021, we acquired a 60% ownership interest in Turner & Townsend Holdings Limited (Turner & Townsend) which is reported in our Global Workplace Solutions segment. The acquisition was treated as a business combination under ASC 805 and was accounted for using the acquisition method of accounting. The acquisition was funded with cash on hand. The following summarizes the consideration transferred at closing for the Turner & Townsend Acquisition (dollars in millions):

Cash consideration [1]	$	723
Deferred consideration		494
Total consideration	$	1,217

[1] Represents cash paid at closing

The deferred consideration amount above, with the contractual payment dates of3-4 years, presented at fair value, represents a total payment of $591.2 million less a discount of $96.9 million which will be accreted through the payment date as part of compensation expense and interest expense.

The following represents the summary of the excess purchase price over the fair value of net assets acquired and fair value of non-controlling interest (dollars in millions):

Purchase price	$	1,217
Less: Estimated fair value of net assets acquired		152
Plus: Estimated fair value of non-controlling interest [1]		32
Excess purchase price over estimated fair value of net assets acquired	$	1,097

[1] Represents fair value of legacy non-controlling interest of Turner & Townsend

The excess purchase price over the fair value of net assets acquired and non-controlling interest has been recorded to goodwill. The goodwill arising from the Turner & Townsend Acquisition consists largely of the synergies and opportunities to deliver a premier project, program and cost management services. The goodwill recorded in connection with the Turner & Townsend Acquisition was not deductible for tax purposes.

The following table summarizes the preliminary fair values assigned to the identified assets acquired and liabilities assumed at the acquisition date on November 1, 2021.

(Dollars in millions)		
Assets Acquired:		
Cash and cash equivalents	$	44
Receivables and other current assets		266
Other intangible assets, net		1,105
Other assets, net		110
Total assets acquired		1,525
Liabilities Assumed:		
Accounts payable and other liabilities		277
Non-current operating lease liabilities		31
Deferred tax liability		291
Total liabilities assumed		599
Non-controlling Interest Acquired		774
Estimated Fair Value of Net Assets Acquired	$	152

In connection with the Turner & Townsend Acquisition, below is a summary of the value allocated to the intangible assets acquired (dollars in millions):

Asset Class	Amortization Period	Amount Assigned at Acquisition Date
Customer relationships	5-11 years	$ 754
Backlog	2-4 years	75
Trademark	Indefinite	276

The accompanying consolidated statement of operations for the year ended December 31, 2021 includes revenue, operating income and net loss of $94.0 million, $0.5 million and $0.5 million, respectively, attributable to the Turner & Townsend Acquisition. This does not include direct transaction and integration costs of $44.6 million which were incurred during the year ended December 31, 2021 in connection with the Turner & Townsend Acquisition.

The fair value of customer relationships and backlog was determined using the Multi-Period Excess Earnings Method (MPEEM), a form of the Income Approach. The MPEEM is a specific application of the Discounted Cash Flow Method. The principle behind the MPEEM is that the value of an intangible asset is equal to the present value of the incremental cash flows attributable only to the subject intangible asset. This estimation used certain unobservable key inputs such as timing of projected cash flows, growth rates, customer attrition rates, discount rates, and the assessment of useful life.

The fair value of the trademark was determined by using the Relief-from-Royalty Method, a form of the Income Approach, and relied on key unobservable inputs such as timing of the projected cash flows, growth rates, and royalty rates. The basic tenet of the Relief-from-Royalty Method is that without ownership of the subject intangible asset, the user of that intangible asset would have to make a stream of payments to the owner of the asset in return for the rights to use that asset. By acquiring the intangible asset, the user avoids these payments.

The fair value of the non-controlling interest was estimated by multiplying the implied value of a100 percent equity interest in Turner & Townsend Holdings Limited by 40 percent. A discount for lack of marketability was not applied as the equity owners from Turner & Townsend Partners LLP maintain a significant equity stake and remain actively involved in the day to day operations of the business.

Unaudited pro forma results, assuming the Turner & Townsend Acquisition had occurred as of January 1, 2020 for purposes of the pro forma disclosures for the years ended December 31, 2021 and 2020 are presented below. They include certain adjustments for increased amortization expense related to the intangible assets acquired (approximately $81.3 million and $97.5 million in 2021 and 2020, respectively) as well as increased depreciation expense related to the fixed assets acquired (approximately $5.5 million and $6.6 million in 2021 and 2020, respectively). Direct transaction and integration costs of $44.6 million as well as the tax impact of all pro forma adjustments are also included in the pro forma results.

These unaudited pro forma results have been prepared for comparative purposes only and do not purport to be indicative of what operating results would have been had the Turner & Townsend Acquisition occurred on January 1, 2020 and may not be indicative of future operating results (dollars in millions, except share data):

	Year Ended December 31,	
	2021	2020
Revenue	$ 28,546	$ 24,716
Operating income	1,706	944
Net income attributable to CBRE Group, Inc.	1,873	705
Basic income per share:		
Net income per share attributable to CBRE Group, Inc.	$ 5.59	$ 2.10
Weighted average shares outstanding for basic income per share	335,232,840	335,196,296
Diluted income per share:		
Net income per share attributable to CBRE Group, Inc.	$ 5.51	$ 2.08
Weighted average shares outstanding for diluted income per share	339,717,401	338,392,210

5. Warehouse Receivables & Warehouse Lines of Credit

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

Beginning balance at December 31, 2022	$	455
Origination of mortgage loans		9,905
Gains (premiums on loan sales)		27
Proceeds from sale of mortgage loans:		
Sale of mortgage loans		(9,687)
Cash collections of premiums on loan sales		(27)
Proceeds from sale of mortgage loans		(9,714)
Net increase in mortgage servicing rights included in warehouse receivables		2
Ending balance at December 31, 2023	$	675

The following table is a summary of our warehouse lines of credit in place as of December 31, 2023 and 2022 (dollars in millions):

			December 31, 2023		December 31, 2022	
Lender	**Current Maturity**	**Pricing**	**Maximum Facility Size**	**Carrying Value**	**Maximum Facility Size**	**Carrying Value**
JP Morgan Chase Bank, N.A. (JP Morgan) [1]	12/13/2024	daily floating rate Secured Overnight Financing Rate (SOFR) rate plus 1.50%, with a SOFR adjustment rate of 0.05%	$ 1,335	$ 613	$ 1,335	$ 331
JP Morgan (Business Lending Activity)	12/13/2024	daily floating rate SOFR rate plus 2.75%, with a SOFR adjustment rate of 0.05%	15	—	15	—
Fannie Mae Multifamily As Soon As Pooled Plus Agreement and Multifamily As Soon As Pooled Sale Agreement (ASAP) Program	Cancelable anytime	daily floating SOFR plus 1.45%, with a SOFR floor of 0.25%	650	7	650	—
TD Bank, N.A. (TD Bank) [2]	7/15/2024	daily floating rate SOFR plus 1.30%, with a SOFR adjustment rate of 0.10%	600	28	800	—
Bank of America, N.A. (BofA) [3]	5/22/2024	daily floating SOFR rate plus 1.25%, with a SOFR adjustment rate of 0.10%	350	18	350	115
BofA [4]	5/22/2024	daily floating rate SOFR plus 1.25%, with a SOFR adjustment rate of 0.10%	250	—	250	—
MUFG Union Bank, N.A. (Union Bank) [5]			—	—	200	2
			$ 3,200	$ 666	$ 3,600	$ 448

[1] Effective December 15, 2023, this facility was amended and renewed at an interest rate of daily floating rate SOFR plus 1.50%, with a SOFR adjustment rate of 0.05% and a maturity date of December 13, 2024.

[2] Effective July 15, 2023, this facility was renewed and amended to a maximum aggregate principal amount of $ 300.0 million, with an uncommitted $300.0 million temporary line of credit and a maturity date of July 15, 2024. As of December 31, 2023, the uncommitted $300.0 million temporary line of credit was not utilized.

[3] Effective September 1, 2023, this facility was amended with a downward revised interest rate of daily floating rate SOFR plus 1.25%, with a SOFR adjustment rate of 0.10% and a maturity date of May 22, 2024.

[4] Effective September 1, 2023, this facility was amended with a downward revised interest rate of daily floating rate SOFR plus 1.25%, with a SOFR adjustment rate of 0.10%, and a maturity date of May 22, 2024.

[5] This facility expired on June 27, 2023, and was not renewed.

During the year ended December 31, 2023, we had a maximum of $1.2 billion of warehouse lines of credit principal outstanding.

6. Variable Interest Entities

We hold variable interests in certain VIEs primarily 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 December 31, 2023 and 2022, our maximum exposure to loss related to the VIEs that are not consolidated was as follows (dollars in millions):

	December 31,	
	2023	2022
Investments in unconsolidated subsidiaries	$ 165	$ 153
Co-investment commitments	58	84
Maximum exposure to loss	$ 223	$ 237

7. Fair Value Measurements

Topic 820 of the FASB ASC defines fair value as the price that would be received to sell an asset or paid to transfer a 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.

The following tables present the fair value of assets and liabilities measured at fair value on a recurring basis as of December 31, 2023 and 2022 (dollars in millions):

	December 31, 2023			
	Fair Value Measured and Recorded Using			
	Level 1	Level 2	Level 3	Total
Assets				
Available for sale debt securities:				
U.S. treasury securities	$ 12	$ —	$ —	$ 12
Debt securities issued by U.S. federal agencies	—	11	—	11
Corporate debt securities	—	44	—	44
Asset-backed securities	—	1	—	1
Total available for sale debt securities	12	56	—	68
Equity securities	41	—	—	41
Investments in unconsolidated subsidiaries	168	—	477	645
Warehouse receivables	—	675	—	675
Other assets	—	—	16	16
Total assets at fair value	$ 221	$ 731	$ 493	$ 1,445
Liabilities				
Derivative liabilities	—	5	—	5
Total liabilities at fair value	$ —	$ 5	$ —	$ 5

	December 31, 2022			
	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	$ —	$ —	$ 6
Debt securities issued by U.S. federal agencies	—	9	—	9
Corporate debt securities	—	44	—	44
Asset-backed securities	—	3	—	3
Total available for sale debt securities	6	56	—	62
Equity securities	34	—	—	34
Investments in unconsolidated subsidiaries	160	—	461	621
Warehouse receivables	—	455	—	455
Other assets	—	—	14	14
Total assets at fair value	$ 200	$ 511	$ 475	$ 1,186

There were no liabilities measured at fair value on a recurring basis as of December 31, 2022.

Fair value measurements for our available for sale debt securities are obtained from independent pricing services which utilize observable market data that may include quoted market prices, dealer quotes, market spreads, cash flows, the U.S. treasury yield curve, trading levels, market consensus prepayment speeds, credit information and the instrument's terms and conditions.

During the year ended December 31, 2023, we recorded a gain of $34.1 million associated with remeasuring our 50% investment in a previously unconsolidated subsidiary to fair value as of the date we acquired the remaining 50% controlling interest. Fair value of this investment in unconsolidated subsidiary at acquisition date was $37.4 million, based upon the purchase price paid for the remaining 50% interest acquired, which falls under Level 3 of the fair value hierarchy. Such gain was reflected in other income in our Advisory Services segment in the accompanying consolidated statements of operations for the year ended December 31, 2023.

The equity securities are generally valued at the last reported sales price on the day of valuation or, if no sales occurred on the valuation date, at the mean of the bid and ask prices on such date. The above tables do not include our $142.8 million and $104.2 million as of December 31, 2023 and 2022, respectively, for capital investments in certain non-public entities as they are non-marketable equity investments accounted for under the measurement alternative, defined as cost minus impairment. These investments are included in "other assets, net" in the accompanying consolidated balance sheets.

The fair values of the warehouse receivables are primarily calculated based on already locked in purchase prices. At December 31, 2023 and 2022, 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 (See Notes 2 and 5). These assets are classified as Level 2 in the fair value hierarchy as a substantial majority of inputs are readily observable.

As of December 31, 2023 and 2022, investments in unconsolidated subsidiaries at fair value using NAV were $352.3 million and $353.0 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 above.

The tables below present a reconciliation for assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3) (dollars in millions):

	Investment in Unconsolidated Subsidiaries	Other assets
Balance as of December 31, 2021	$ 407	$ (11)
Transfer in (out)	(15)	—
Net change in fair value	(38)	3
Purchases/ Additions	107	22
Balance as of December 31, 2022	461	14
Transfer in (out)	—	(10)
Net change in fair value	16	5
Purchases/ Additions	—	7
Balance as of December 31, 2023	$ 477	$ 16

Net change in fair value, included in the table above, is reported in Net income as follows:

Category of Assets/Liabilities using Unobservable Inputs	Consolidated Statements of Operations
Investments in unconsolidated subsidiaries	Equity income from unconsolidated subsidiaries
Other assets (liabilities)	Other income (loss)

The table below presents information about the significant unobservable inputs used for recurring fair value measurements for certain Level 3 instruments as of December 31, 2023:

	Valuation Technique	Unobservable Input	Range	Weighted Average
Investment in unconsolidated subsidiaries	Discounted cash flow	Discount rate	25 %	—
	Monte Carlo	Volatility	45% - 69%	51 %
		Risk free interest rate	4 %	—
		Discount Yield	25 %	—
Other assets	Discounted cash flow	Discount rate	25 %	—

There were no asset impairment charges or other significant non-recurring fair value measurements recorded during the years ended December 31, 2023 and December 31, 2021.

During the year ended December 31, 2022, we recorded non-cash asset impairment charges of $58.7 million. Approximately $10.4 million of such charges related to the exit of our Advisory Services business in Russia (primarily comprised of receivables), and $26.4 million and $21.9 million related to goodwill and trade name impairment charges, respectively. The goodwill and the trade name impairment charges represent a full impairment of such assets associated with the Telford Homes business in our Real Estate Investments segment. The charges were attributable to the effects of elevated inflation on construction, materials and labor costs which increased Telford Homes' risk as the contractor and reduced the profitability of current projects. The fair value measurements employed for our impairment evaluation of goodwill were based on a discounted cash flow approach and a relief from royalty fair value method for the trade name. Significant inputs used in the evaluation included a risk-free rate of return, estimated risk premium, terminal growth rates, working capital assumptions, royalty rate, income tax rates as well as other economic variables. These asset impairment charges were included within the line item "Asset impairments" in the accompanying consolidated statements of operations.

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 Notes 2 and 5).

- *Investments in Unconsolidated Subsidiaries* – A portion of these investments are carried at fair value as discussed above. It includes our equity investment and related interests in both public and non-public entities. Our ownership of common shares in Altus Power, Inc. (Altus) is considered level 1 and is measured at fair value using a quoted price in an active market. Our ownership of alignment shares of Altus and our investment in Industrious and certain other non-controlling equity investments are considered level 3 which are measured at fair value using Monte Carlo and discounted cash flows. The valuation of Altus' common shares and alignment shares are dependent on its stock price which could be volatile and subject to wide fluctuations in response to various market conditions.

- *Available for Sale Debt Securities* – Primarily held by our wholly-owned captive insurance company, these investments are carried at their fair value.

- *Equity Securities* – Primarily held by our wholly-owned captive insurance company, these investments are carried at their fair value.

- *Other assets / liabilities* – Represents the fair value of the unfunded commitment related to a revolving facility. Valuations are based on discounted cash flow techniques, for which the significant inputs are the amount and timing of expected future cash flows, market comparables and recovery assumptions. As of December 31, 2022, it also included approximately $10 million of investment in a non-public entity which was transferred out of level 3 during 2023 and remeasured at December 31, 2023 using the measurement alternative as discussed above.

- *Derivative liability* - The fair value of cross-currency swaps, executed in 2023, reflects the net present value of expected payments and receipts under the swap agreement based on the market's expectation of future foreign currency exchange rates. Additional inputs to the net present value calculation may include the contract terms, counterparty credit risk, and discount rates.

- *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/or variable interest rates of these instruments, fair value approximates carrying value (see Notes 5 and 11).

- *Senior Term Loans* – Based on dealers' quotes (which falls within Level 2 of the fair value hierarchy), the estimated fair value of our senior term loans (comprised of tranche A Euro-denominated term loans and U.S. Dollar-denominated term loans issued in July 2023) was approximately $ 746.5 million and actual carrying value was $752.0 million at December 31, 2023. The above senior term loans were used to repay the prior euro term loan which had a fair value of $424.6 million and carrying value of $427.8 million at December 31, 2022. The above carrying values are net of unamortized debt issuance costs (see Note 11).

- *Senior Notes* – Based on dealers' quotes (which falls within Level 2 of the fair value hierarchy), the estimated fair value of our5.950% senior notes was $1.0 billion at December 31, 2023. The actual carrying value of our 5.950% senior notes, net of unamortized debt issuance costs and discount, totaled $973.7 million at December 31, 2023. The estimated fair value of our 4.875% senior notes was $600.2 million and $595.2 million at December 31, 2023 and 2022, respectively. The actual carrying value of our 4.875% senior notes, net of unamortized debt issuance costs and discount, totaled $597.5 million and $596.4 million at December 31, 2023 and 2022, respectively. The estimated fair value of our 2.500% senior notes was $424.0 million and $396.8 million at December 31, 2023 and 2022, respectively. The actual carrying value of our 2.500% senior notes, net of unamortized debt issuance costs and discount, totaled $490.4 million and $489.3 million at December 31, 2023 and 2022, respectively (See Note 11).

- *Notes Payable on Real Estate* – As of December 31, 2023 and 2022, the carrying value of our notes payable on real estate, net of unamortized debt issuance costs, was $36.3 million and $52.7 million, respectively. These notes payable were not recourse to CBRE Group, Inc., except for being recourse to the single-purpose entities that held the real estate assets and were the primary obligors on the notes payable. These borrowings have either fixed interest rates or floating interest rates at spreads added to a market index. Although it is possible that certain portions of our notes payable on real estate may have fair values that differ from their carrying values, based on the terms of such loans as compared to current market conditions, or other factors specific to the borrower entity, we do not believe that the fair value of our notes payable is significantly different than their carrying value.

8. Property and Equipment

Property and equipment consists of the following (dollars in millions):

	Useful Lives	December 31, 2023	December 31, 2022
Computer hardware and software	2-10 years	$ 1,341	$ 1,158
Leasehold improvements	1-15 years	658	611
Furniture and equipment	1-10 years	298	268
Construction in progress	N/A	186	185
Total cost		2,483	2,222
Accumulated depreciation and amortization		1,576	1,386
Property and equipment, net		$ 907	$ 836

Depreciation and amortization expense associated with property and equipment was $289.6 million, $260.8 million and $244.9 million for the years ended December 31, 2023, 2022 and 2021, respectively. There were no asset impairment charges related to property and equipment during the years ended December 31, 2023, 2022 and 2021.

Construction in progress includes capitalizable costs incurred during the development stage of computer software and leasehold improvements that have not yet been placed in service.

9. Goodwill and Other Intangible Assets

Our annual assessment of goodwill and other intangible assets deemed to have indefinite lives has historically been completed as of the beginning of the fourth quarter of each year. We performed the 2023, 2022 and 2021 annual assessments as of October 1 and determined that no impairment existed as the estimated fair value of our reporting units was in excess of their carrying value.

During 2022, we identified a triggering event due to changing market conditions in our Real Estate Investments segment for the Telford Homes business. We recorded a non-cash goodwill impairment charge of $26.4 million associated with this reporting unit attributable to the effects of elevated inflation on construction, materials and labor costs, driving an increase in Telford Homes' risk as the contractor and reducing the profitability of current projects.

The following table summarizes the changes in the carrying amount of goodwill for the years ended December 31, 2023 and 2022 (dollars in millions):

	Advisory Services	Global Workplace Solutions	Real Estate Investments	Total
Balance as of December 31, 2021				
Goodwill	$ 3,299	$ 2,174	$ 616	$ 6,089
Accumulated impairment losses	(762)	(175)	(157)	(1,094)
	2,537	1,999	459	4,995
Purchase accounting entries related to acquisitions	20	60	—	80
Impairment	—	—	(26)	(26)
Foreign exchange movement	(36)	(124)	(21)	(181)
Balance as of December 31, 2022				
Goodwill	3,283	2,110	595	5,988
Accumulated impairment losses	(762)	(175)	(183)	(1,120)
	2,521	1,935	412	4,868
Purchase accounting entries related to acquisitions	91	93	3	187
Impairment	—	—	—	—
Foreign exchange movement	9	57	8	74
Balance as of December 31, 2023				
Goodwill	3,383	2,260	606	6,249
Accumulated impairment losses	(762)	(175)	(183)	(1,120)
	$ 2,621	$ 2,085	$ 423	$ 5,129

Other intangible assets totaled $2.1 billion, net of accumulated amortization of $2.2 billion as of December 31, 2023, and $2.2 billion, net of accumulated amortization of $1.9 billion, as of December 31, 2022 and are comprised of the following (dollars in millions):

	December 31,			
	2023		2022	
	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Unamortizable intangible assets:				
Management contracts	$ 62		$ 60	
Trademarks	317		312	
	379		372	
Amortizable intangible assets:				
Customer relationships	1,727	$ (893)	1,637	$ (774)
Mortgage servicing rights	1,055	(556)	1,030	(469)
Trademarks/Trade names	315	(147)	305	(129)
Management contracts	122	(121)	149	(146)
Covenant not to compete	4	(1)	4	(1)
Other	658	(461)	612	(397)
	3,881	(2,179)	3,737	(1,916)
Total intangible assets	$ 4,260	$ (2,179)	$ 4,109	$ (1,916)

Unamortizable intangible assets include management contracts identified as a result of the ING Group N.V. (ING) Real Estate Investment Management (REIM) operations in Europe and Asia, as well as substantially all of Clarion Real Estate Securities (CRES) in 2011 (collectively referred to as the REIM Acquisitions) relating to relationships with open-end funds, a trademark separately identified as a result of the CBRE Services, Inc. (CBRE Services) in 2001 (the 2001 Acquisition), a trade name separately identified in connection with the REIM Acquisitions and a trademark separately identified as part of the Turner & Townsend transaction.

Customer relationships relate to existing relationships acquired through acquisitions mainly in our Global Workplace Solutions segment that are being amortized over useful lives of up to 20 years.

Mortgage servicing rights represent the carrying value of servicing assets in the U.S. in our Advisory Services segment. The mortgage servicing rights are being amortized over the estimated period that net servicing income is expected to be received, which is typically up to 10 years. See Mortgage Servicing Rights discussion within Note 2 for additional information.

Trademarks are primarily from our 2015 acquisition of the Global Workplace Solutions business from Johnson Controls, Inc., which are being amortized over20 years. During 2022, we recorded a non-cash impairment of approximately $21.9 million for trademarks associated with our Telford Homes business in the Real Estate Investments segment due to the impact of the inflationary conditions on construction materials negatively impacting cash flows (see Note 7).

Management contracts consist primarily of asset management contracts relating to relationships with closed-end funds and separate accounts in the U.S., Europe and Asia that were separately identified as a result of the REIM Acquisitions. These management contracts are being amortized over useful lives of up to 13 years.

Other amortizable intangible assets mainly represent transition costs, which primarily get amortized to cost of revenue over the life of the associated contract. It also includes a backlog related intangible identified as part of the Turner & Townsend transaction.

Amortization expense related to intangible assets, excluding amortization of transition costs, was $321.8 million, $348.0 million and $276.5 million for the years ended December 31, 2023, 2022 and 2021, respectively. The estimated annual amortization expense, excluding amortization of transition costs, for each of the years ending December 31, 2024 through December 31, 2028 and thereafter approximates $289.8 million, $244.0 million, $197.4 million, $162.6 million, $142.4 million and $512.4 million, respectively.

10. 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 from 1.0% to 50.0%. The following table represents the composition of investment in unconsolidated subsidiaries under equity method of accounting and fair value option (dollars in millions):

	December 31,	
Investment type	**2023**	**2022**
Real Estate Investments (in projects and funds)	$ 661	$ 623
Investment in Altus:		
Class A common stock [1]	168	160
Alignment shares [2]	56	60
Subtotal	224	220
Other [3]	489	475
Total investment in unconsolidated subsidiaries	$ 1,374	$ 1,318

[1] CBRE held 24,556,012 and 24,554,201 shares of Altus Class A common stock as of December 31, 2023 and December 31, 2022, respectively, representing approximate ownership of 15.57%.

[2] The alignment shares, also known as Class B common shares, will automatically convert into Altus Class A common stock based on the achievement of certain total return thresholds on Altus Class A common stock as of the relevant measurement date over the seven fiscal years following the merger. As of March 31, 2023 (the second measurement date), 201,250 of alignment shares automatically converted into 2,011 shares of Class A common stock, of which CBRE was entitled to 1,811 shares.

[3] Consists of our investments in Industrious and other non-public entities.

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

	December 31,	
	2023	**2022**
Combined Condensed Balance Sheets Information:		
Current assets	$ 8,884	$ 9,044
Non-current assets	44,116	45,616
Total assets	$ 53,000	$ 54,660
Current liabilities	$ 1,905	$ 2,346
Non-current liabilities	17,288	15,858
Total liabilities	$ 19,193	$ 18,204
Non-controlling interests	$ 1,065	$ 926

	Year Ended December 31,		
	2023	**2022**	**2021**
Combined Condensed Statements of Operations Information:			
Revenue	$ 7,178	$ 2,783	$ 2,681
Operating income	4,984	1,215	1,371
Net income [1]	760	4,102	3,260

[1] Included in net income are realized and unrealized earnings and losses in investments in unconsolidated investment funds and realized earnings and losses from sales of real estate projects in investments in unconsolidated subsidiaries. These realized and unrealized earnings and losses are not included in revenue and operating income.

Our Real Estate Investments segment invests our own capital in certain real estate investment funds with clients. We provided investment management, property management, brokerage and other professional services in connection with these real estate investments and earned revenues from these unconsolidated subsidiaries of $278.8 million, $268.9 million and $213.5 million during the years ended December 31, 2023, 2022 and 2021, respectively. We had receivables of $83.2 million and $73.2 million at December 31, 2023 and 2022, respectively, from these entities. Additionally, in our global development business, we earned development and construction management revenues from these unconsolidated subsidiaries of $165.0 million, $147.8 million and $104.3 million during the years ended December 31, 2023, 2022 and 2021. We had receivables of $30.4 million and $21.1 million at December 31, 2023 and 2022, respectively, from these entities.

11. Long-Term Debt and Short-Term Borrowings

Total long-term debt and short-term borrowings consist of the following (dollars in millions):

	December 31,	
	2023	2022
Long-Term Debt		
Senior term loans	$ 755	$ 428
5.950% senior notes due in 2034, net of unamortized discount	976	—
4.875% senior notes due in 2026, net of unamortized discount	599	598
2.500% senior notes due in 2031, net of unamortized discount	494	494
Total long-term debt	2,824	1,520
Less: current maturities of long-term debt	9	428
Less: unamortized debt issuance costs	11	6
Total long-term debt, net of current maturities	$ 2,804	$ 1,086
Short-Term Borrowings		
Warehouse lines of credit, with interest ranging from 5.51% to 8.15%, due in 2024	$ 666	$ 448
Revolving credit facility, with interest ranging from 5.03% to 5.23%	—	178
Other	16	43
Total short-term borrowings	$ 682	$ 669

Future annual aggregate maturities of total consolidated gross debt (excluding unamortized discount, premium and debt issuance costs) at December 31, 2023 are as follows (dollars in millions): 2024—$692; 2025—$38; 2026—$638; 2027—$38; 2028—$632 and $1,500 thereafter.

Long-Term Debt

We maintain credit facilities with third-party lenders, which we use for a variety of purposes. On July 10, 2023, CBRE Group, Inc., CBRE Services, Inc. (CBRE Services) and Relam Amsterdam Holdings B.V., a wholly-owned subsidiary of CBRE Services, entered into a new 5-year senior unsecured Credit Agreement (the 2023 Credit Agreement) maturing on July 10, 2028, which refinanced and replaced the 2022 Credit Agreement (as described below). The 2023 Credit Agreement provides for a senior unsecured term loan credit facility comprised of (i) tranche A Euro-denominated term loans in an aggregate principal amount of €366.5 million and (ii) tranche A U.S. Dollar-denominated term loans in an aggregate principal amount of $350.0 million, both requiring quarterly principal payments beginning on December 31, 2024 and continuing through maturity on July 10, 2028. The proceeds of the term loans under the 2023 Credit Agreement were applied to the repayment of all remaining outstanding senior term loans under the prior 2022 Credit Agreement, the payment of related fees and expenses and other general corporate purposes. We entered into a cross currency swap to hedge the associated foreign currency exposure related to this transaction. The fair value of the derivative instrument was immaterial as of December 31, 2023.

Borrowings denominated in euros under the 2023 Credit Agreement bear interest at a rate equal to (i) the applicable percentage plus (ii) at our option, either (1) the EURIBOR rate for the applicable interest period or (2) a rate determined by reference to Daily Simple Euro Short-Term Rate (ESTR). Borrowings denominated in U.S. dollars under the 2023 Credit Agreement bear interest at a rate equal to (i) the applicable percentage, plus (ii) at our option, either (1) the Term SOFR rate for the applicable interest period plus 10 basis points or (2) a base rate determined by the reference to the greatest of (x) the prime rate, (y) the federal funds rate plus 1/2 of 1% and (z) the sum of (A) Term SOFR rate published by CME Group Benchmark Administration Limited for an interest period of one month and (B) 1.00%. The applicable rate for borrowings under the 2023 Credit Agreement is determined by reference to our Credit Rating (as defined in the 2023 Credit Agreement). As of December 31, 2023, we had (i) $404.0 million of euro term loan borrowings outstanding under the 2023 Credit Agreement (at an interest rate of 1.25% plus EURIBOR) and (ii) $348.0 million of U.S. Dollar term loan borrowings outstanding under the 2023 Credit Agreement (at an interest rate of 1.35% plus Term SOFR), net of unamortized debt issuance costs, included in the accompanying consolidated balance sheets.

The term loan borrowings under the 2023 Credit Agreement are guaranteed on a senior basis by CBRE Group, Inc. and CBRE Services.

The 2023 Credit Agreement also requires us to maintain a minimum coverage ratio of consolidated EBITDA (as defined in the 2023 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 2023 Credit Agreement) of4.25x (and in the case of the first four full fiscal quarters following consummation of a qualified acquisition (as defined in the 2023 Credit Agreement), 4.75x) as of the end of each fiscal quarter. In addition, the 2023 Credit Agreement also contains other customary affirmative and negative covenants and events of default. We were in compliance with the covenants under this agreement as of December 31, 2023.

The prior 2022 Credit Agreement was a senior unsecured credit facility that was guaranteed by CBRE Group, Inc. and CBRE Services. The 2022 Credit Agreement provided for a €400.0 million term loan facility payable in full at maturity on December 20, 2023. A $3.15 billion revolving credit facility, which included the capacity to obtain letters of credit and swingline loans and would have terminated on March 4, 2024, was previously provided under this agreement and was replaced with a new $3.5 billion 5-year senior unsecured Revolving Credit Agreement entered into on August 5, 2022 (as described below). The proceeds of the term loans under the 2023 Credit Agreement were applied to the repayment of all remaining outstanding loans under the 2022 Credit Agreement at which time the 2022 Credit Agreement was repaid in full and terminated.

On June 23, 2023, CBRE Services issued $1.0 billion in aggregate principal amount of5.950% senior notes due August 15, 2034 (the 5.950% senior notes) at a price equal to 98.174% of their face value. The 5.950% senior notes are unsecured obligations of CBRE Services, senior to all of its current and future subordinated indebtedness, but effectively subordinated to its current and future secured indebtedness (if any) to the extent of the value of the assets securing such indebtedness. The 5.950% senior notes are guaranteed on a senior basis by CBRE Group, Inc. Interest accrues at a rate of 5.950% per year and is payable semi-annually in arrears on February 15 and August 15 of each year, beginning on February 15, 2024. The 5.950% senior notes are redeemable at our option, in whole or in part, on or after May 15, 2034 at a redemption price of100% of the principal amount on that date, plus accrued and unpaid interest, if any, to, but excluding the date of redemption. At any time prior to May 15, 2034, we may redeem all or a portion of the notes at a redemption price equal to the greater of (1) 100% of the principal amount of the notes to be redeemed and (2) the sum of the present value at the date of redemption of the remaining scheduled payments of principal and interest thereon to May 15, 2034, assuming the notes matured on May 15, 2034, discounted to the date of redemption on a semi-annual basis at an adjusted rate equal to the treasury rate plus 40 basis points, minus accrued interest to the date of redemption, plus, in either case, accrued and unpaid interest, if any, to the redemption date. The amount of the 5.950% senior notes, net of unamortized discount and unamortized debt issuance costs, included in the accompanying consolidated balance sheet was $973.7 million at December 31, 2023.

On March 18, 2021, CBRE Services issued $500.0 million in aggregate principal amount of 2.500% senior notes due April 1, 2031 (the 2.500% senior notes) at a price equal to 98.451% of their face value. The 2.500% senior notes are unsecured obligations of CBRE Services, senior to all of its current and future subordinated indebtedness. The 2.500% senior notes are guaranteed on a senior basis by CBRE Group, Inc. Interest accrues at a rate of 2.500% per year and is payable semi-annually in arrears on April 1 and October 1 of each year. The 2.500% senior notes are redeemable at our option, in whole or in part, on or after January 1, 2031 at a redemption price of 100% of the principal amount on that date, plus accrued and unpaid interest, if any, to, but excluding the date of redemption. At any time prior to January 1, 2031, we may redeem all or a portion of the notes at a redemption price equal to the greater of (1) 100% of the principal amount of the notes to be redeemed and (2) the sum of the present value at the date of redemption of the remaining scheduled payments of principal and interest thereon to January 1, 2031, assuming the notes matured on January 1, 2031, discounted to the date of redemption on a semi-annual basis at an adjusted rate equal to the treasury rate plus 20 basis points, minus accrued and unpaid interest to, but excluding, the date of redemption, plus, in either case, accrued and unpaid interest, if any, to, but not including, the redemption date. The amount of the 2.500% senior notes, net of unamortized discount and unamortized debt issuance costs, included in the accompanying consolidated balance sheet was $490.4 million and $489.3 million at December 31, 2023 and 2022, respectively.

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. The 4.875% senior notes are guaranteed on a senior basis by CBRE Group, Inc. Interest accrues at a rate of 4.875% per year and is payable semi-annually in arrears on March 1 and September 1 of each year. The 4.875% senior notes are redeemable at our option, in whole or in part, prior to December 1, 2025 at a redemption price equal to the greater of (1) 100% of the principal amount of the 4.875% senior notes to be redeemed and (2) the sum of the present values of the remaining scheduled payments of principal and interest thereon to December 1, 2025 (not including any portions of payments of interest accrued as of the date of redemption) discounted to the date of redemption on a semi-annual basis at the Adjusted Treasury Rate (as defined in the indenture governing these notes). In addition, at any time on or after December 1, 2025, the 4.875% senior notes may be redeemed by us, in whole or in part, at a redemption price equal to 100% of the principal amount, plus accrued and unpaid interest, if any, to (but excluding) the date of redemption. If a change of control triggering event (as defined in the indenture governing these notes) occurs, we are obligated to make an offer to purchase the then outstanding 4.875% senior notes at a redemption price of 101% of the principal amount, plus accrued and unpaid interest, if any, to the date of purchase. The amount of the 4.875% senior notes, net of unamortized discount and unamortized debt issuance costs, included in the accompanying consolidated balance sheets was $597.5 million and $596.4 million at December 31, 2023 and 2022, respectively.

The indentures governing our 5.950% senior notes, 4.875% senior notes and 2.500% senior notes (1) 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, and (2) require that the notes be jointly and severally guaranteed on a senior basis by CBRE Group, Inc. and any domestic subsidiary that guarantees the 2023 Credit Agreement or the Revolving Credit Agreement. The indentures also contain other customary affirmative and negative covenants and events of default. We were in compliance with the covenants under our debt instruments as of December 31, 2023.

Short-Term Borrowings

We had short-term borrowings of $682.4 million and $668.8 million as of December 31, 2023 and 2022, respectively, with related weighted average interest rates of 6.8% and 5.6%, respectively, which are included in the accompanying consolidated balance sheets.

Revolving Credit Agreement

On August 5, 2022, we entered into a new 5-year senior unsecured Revolving Credit Agreement (the Revolving Credit Agreement). The Revolving Credit Agreement provides for a senior unsecured revolving credit facility available to CBRE Services with a capacity of $3.5 billion and a maturity date of August 5, 2027. Borrowings bear interest at (i) CBRE Services' option, either (a) a Term SOFR rate published by CME Group Benchmark Administration Limited for the applicable interest period or (b) a base rate determined by reference to the greatest of (1) the prime rate determined by Wells Fargo, (2) the federal funds rate plus 1/2 of 1% and (3) the sum of (x) a Term SOFR rate published by CME Group Benchmark Administration Limited for an interest period of one month and (y) 1.00% plus (ii) 10 basis points, plus (iii) a rate equal to an applicable rate (in the case of borrowings based on the Term SOFR rate, 0.630% to 1.100% and in the case of borrowings based on the base rate, 0.0% to 0.100%, in each case, as determined by reference to our Debt Rating (as defined in the Revolving Credit Agreement)). The applicable rate is also subject to certain increases and/or decreases specified in the Revolving Credit Agreement linked to achieving certain sustainability goals.

The Revolving Credit Agreement requires us to pay a fee based on the total amount of the revolving credit facility commitment (whether used or unused). In addition, the Revolving Credit Agreement also includes capacity for letters of credit not to exceed $300.0 million in the aggregate.

The Revolving Credit Agreement also requires us to maintain a minimum coverage ratio of consolidated EBITDA (as defined in the Revolving 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 Revolving 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 Revolving Credit Agreement),4.75x) as of the end of each fiscal quarter. In addition, the Revolving Credit Agreement also contains other customary affirmative and negative covenants and events of default. We were in compliance with the covenants under this agreement as of December 31, 2023.

As of December 31, 2023, no amount was outstanding under the Revolving Credit Agreement. No letters of credit were outstanding as of December 31, 2023. Letters of credit are issued in the ordinary course of business and would reduce the amount we may borrow under the Revolving Credit Agreement.

Turner & Townsend Revolving Credit Facilities

Turner & Townsend has a revolving credit facility with a capacity of £120.0 million and an additional accordion option of £20.0 million that matures on March 31, 2027. As of December 31, 2023, $10.2 million (£8.0 million) was outstanding under this revolving credit facility bearing interest at SONIA plus 0.75%.

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 5 for additional information.

12. Leases

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

Category	Classification	December 31, 2023	December 31, 2022
Assets			
Operating	Operating lease assets	$ 1,030	$ 1,033
Financing	Other assets, net	210	91
Total leased assets		$ 1,240	$ 1,124
Liabilities			
Current:			
Operating	Operating lease liabilities	$ 242	$ 230
Financing	Other current liabilities	36	33
Non-current:			
Operating	Non-current operating lease liabilities	1,089	1,080
Financing	Other liabilities	72	58
Total lease liabilities		$ 1,439	$ 1,401

Components of lease cost are as follows (dollars in millions):

Component	Classification	Year Ended December 31, 2023	Year Ended December 31, 2022
Operating lease cost	Operating, administrative and other	$ 220	$ 196
Financing lease cost:			
Amortization of right-to-use assets	(1)	36	31
Interest on lease liabilities	Interest expense	1	1
Variable lease cost	(2)	115	79
Sublease income	Revenue	(5)	(4)
Total lease cost		$ 367	$ 303

(1) Amortization costs of $25.2 million and $26.4 million from vehicle finance leases utilized in client outsourcing arrangements are included in the "Cost of revenue" line item in the accompanying consolidated statements of operations for the years ended December 31, 2023 and 2022, respectively. Amortization costs of $ 10.8 million and $4.2 million from all other finance leases are included in the "Depreciation and amortization" line item in the accompanying consolidated statements of operations for the years ended December 31, 2023 and 2022, respectively.

(2) Variable lease costs of $ 24.0 million and $23.6 million from leases in client outsourcing arrangements are included in the "Cost of revenue" line item in the accompanying consolidated statements of operations for the years ended December 31, 2023 and 2022, respectively. Variable lease costs of $64.1 million and $55.6 million from all other leases are included in the "Operating, administrative and other" line item in the accompanying consolidated statements of operations for the years ended December 31, 2023 and 2022, respectively.

Weighted average remaining lease term and discount rate for our operating and finance leases are as follows:

	December 31, 2023	December 31, 2022
Weighted-average remaining lease term:		
Operating leases (1)	41 years	42 years
Financing leases (2)	71 years	75 years
Weighted-average discount rate:		
Operating leases (1)	4.8%	4.5%
Financing leases (2)	5.2%	5.1%

(1) Operating leases as of December 31, 2023 and 2022 include three 90+ year leases on real estate under development. If excluded, the weighted-average remaining lease term would be 7 years (for both years) and weighted-average discount rate would be 3.5% as of December 31, 2023 and 3.0% as of December 31, 2022.

(2) Finance leases as of December 31, 2023 and 2022 included a 99 year lease on real estate held for investment. If excluded, the weighted-average remaining lease term and weighted-average discount rate would be 3 years and 2.5%, respectively, as of December 31, 2023 and 3 years and 1.7%, respectively, as of December 31, 2022. This excludes certain land leases up to 999 years held by our U.K. development business.

Maturities of lease liabilities by fiscal year as of December 31, 2023 are as follows (dollars in millions):

	Operating Leases	Financing Leases
2024	$ 239	$ 38
2025	226	27
2026	210	19
2027	161	11
2028	127	4
Thereafter	1,241	218
Total remaining lease payments at December 31, 2023	2,204	317
Less: Interest	873	209
Present value of lease liabilities at December 31, 2023	$ 1,331	$ 108

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

	Year Ended December 31,	
	2023	2022
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash outflows from operating leases	$ 237	$ 237
Operating cash outflows from financing leases	3	2
Financing cash outflows from financing leases	38	38
Right-of-use assets obtained in exchange for new operating lease liabilities	154	164
Right-of-use assets obtained in exchange for new financing lease liabilities	54	31
Other non-cash increases in operating lease right-of-use assets [1]	6	32
Other non-cash increases in financing lease right-of-use assets [1]	100	6

[1] The non-cash activity in the right-of-use assets resulted from lease modifications/remeasurements and terminations.

13. 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 as liabilities on our consolidated financial statements are unlikely to be significant, but litigation is inherently uncertain and there is the potential for a material adverse effect on our consolidated 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 with unpaid principal balances of $41.5 billion at December 31, 2023, of which $38.0 billion is subject to such loss sharing arrangements. 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 December 31, 2023 and 2022, CBRE MCI had $140.0 million and $113.0 million, respectively, of letters of credit under this reserve arrangement and had recorded a liability of approximately $67.4 million and $65.1 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 $651.7 million (including $215.1 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 December 31, 2023.

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 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 December 31, 2023 and 2022, CBRE Capital Markets had posted a $5.0 million letter of credit under this reserve arrangement.

We had outstanding letters of credit totaling $236.9 million as of December 31, 2023, 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 $145.0 million as of December 31, 2023 referred to in the preceding paragraphs represented the majority of the $236.9 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 the end of each of the respective agreements.

We had guarantees totaling $206.2 million as of December 31, 2023, 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 $206.2 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 December 31, 2023, 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 segment involves co-investing our capital in certain real estate investments with our clients. For our investment funds, we generally co-invest up to 2.0% of the equity in a particular fund. As of December 31, 2023, we had aggregate future commitments of $180.4 million related to co-investment funds. Additionally, we make selective investments in real estate development projects on our own account or co-invest with our clients with up to 50% of the project's equity as a principal in unconsolidated real estate projects. We had unfunded capital commitments of $ 230.1 million and $73.9 million to consolidated and unconsolidated projects, respectively, as of December 31, 2023.

Also refer to Note 22 for the Telford Fire Safety Remediation provision.

14. Employee Benefit Plans

Stock Incentive Plans

2017 Equity Incentive Plan

Our 2017 Equity Incentive Plan (the 2017 Plan) was adopted by our board of directors and approved by our stockholders on May 19, 2017. The 2017 Plan authorized the grant of stock-based awards to our employees, directors and independent contractors. Our 2017 Plan was terminated in May 2019 in connection with the adoption of our 2019 Equity Incentive Plan (the 2019 Plan), which is described below. At termination of the 2017 Plan, no unissued shares from the 2017 Plan were allocated to the 2019 Plan for potential future issuance. As of December 31, 2023, 1,605,479 restricted stock unit (RSU) awards to acquire shares of our Class A common stock granted under the 2017 Plan remain outstanding according to their terms, and we will continue to issue shares to the extent required under the terms of such outstanding awards (noting that any shares granted above target will get deducted from the 2019 Plan reserve as noted below). Shares underlying awards outstanding under the 2017 Plan at termination that are subsequently canceled, forfeited or terminated without issuance to the holder thereof will be available for grant under the 2019 Plan.

2019 Equity Incentive Plan

Our 2019 Plan was adopted by our board of directors on March 1, 2019 and approved by our stockholders on May 17, 2019. The 2019 Plan authorizes the grant of stock-based awards to employees, directors and independent contractors. Unless terminated earlier, the 2019 Plan will terminate on March 1, 2029. A total of 9,900,000 shares of our Class A common stock are reserved for issuance under the 2019 Plan, less 189,499 shares granted under the 2017 Plan between March 1, 2019, the date our board of directors approved the plan, and May 17, 2019, the date our stockholders approved the 2019 Plan. Additionally, as mentioned above, shares underlying awards outstanding under the 2017 Plan at termination that are subsequently canceled, forfeited or terminated without issuance to the holder thereof will be available for reissuance under the 2019 Plan. On May 27, 2022, an additional 7,700,000 shares of our Class A common stock was reserved for issuance under the 2019 Plan. As of December 31, 2023,917,442 shares were cancelled and 1,078,267 shares were withheld for payment of taxes under the 2017 Plan and added to the authorized pool for the 2019 Plan, bringing the total authorized amount under the 2019 Plan to 19,406,210 shares of our Class A common stock.

Shares underlying expired, canceled, forfeited or terminated awards under the 2019 Plan (other than awards granted in substitution of an award previously granted), plus those utilized to pay tax withholding obligations with respect to an award (other than an option or stock appreciation right) will be available for reissuance. Awards granted under the 2019 Plan are subject to a minimum vesting condition of one year. As of December 31, 2023, assuming the maximum number of shares under our performance-based awards will later be issued (which includes shares that could be issued over target related to performance awards issued and outstanding under the 2017 Plan), 9,040,592 shares remained available for future grants under this plan.

The number of shares issued or reserved pursuant to the 2017 Plan and 2019 Plan are subject to adjustment on account of a stock split of our outstanding shares, stock dividend, dividend payable in a form other than shares in an amount that has a material effect on the price of the shares, consolidation, combination or reclassification of the shares, recapitalization, spin-off, or other similar occurrences.

Non-Vested Stock Awards

We have issued non-vested stock awards, including RSUs and restricted shares, in our Class A common stock to certain of our employees, independent contractors and members of our board of directors. The following is a summary of the awards granted during the years ended December 31, 2023, 2022 and 2021.

- During the year ended December 31, 2023, we granted RSUs that are performance vesting in nature, with896,742 reflecting the maximum number of RSUs that may be issued if all of the performance targets are satisfied at their highest levels, and 1,216,384 RSUs that are time vesting in nature.

- During the year ended December 31, 2022, we granted RSUs that are performance vesting in nature, with1,223,849 reflecting the maximum number of RSUs that may be issued if all of the performance targets are satisfied at their highest levels, and 1,154,113 RSUs that are time vesting in nature.

- During the year ended December 31, 2021, we granted RSUs that are performance vesting in nature, with734,352 reflecting the maximum number of RSUs that may be issued if all of the performance targets are satisfied at their highest levels, and 969,299 RSUs that are time vesting in nature.

Our annual performance-vesting awards generally vest in full three years from the grant date, based on our achievement against various adjusted income per share performance targets. Our time-vesting awards generally vest 25% per year over four years from the grant date.

We made a special grant of RSUs under our 2017 Plan (2017 Special RSU grant) to certain of our employees, with3,288,618 reflecting the maximum number of RSUs that may be issued if all of the performance targets are satisfied at their highest levels, and 939,605 RSUs that are time vesting in nature. During 2021, we granted additional RSUs under this program to certain of our employees, with 146,080 reflecting the maximum number of RSUs that may be issued if all of the performance targets are satisfied at their highest levels. There were no time vesting RSUs associated with the 2021 grants. As a condition to this 2017 Special RSU grant, each participant has agreed to execute a Restrictive Covenants Agreement. Each 2017 Special RSU grant (except the ones granted during 2021, which are all performance based) consisted of:

(i) Total Shareholder Return (TSR) Performance RSUs with respect to33.3% of the total number of target RSUs subject to the grant. The actual number of TSR Performance RSUs that vested on December 1, 2023, was determined by measuring our cumulative TSR against the cumulative TSR of each of the other companies comprising the S&P 500 on the grant date (the Comparison Group) over a six year measurement period commencing on the grant date and ending on December 1, 2023. For purposes of measuring TSR, the initial value of our common stock was the average closing price of such common stock for the 60 trading days immediately preceding the grant date and the final value of our common stock was the average closing price of such common stock for the 60 trading days immediately preceding December 1, 2023.

(ii) Time Vesting RSUs with respect to33.3% of the total number of target RSUs subject to the grant.

(iii) EPS Performance RSUs with respect to33.3% of the total number of target RSUs subject to the grant. The actual number of EPS Performance RSUs that will vest is determined by measuring our cumulative adjusted income per share growth against the cumulative EPS growth, as reported under GAAP (GAAP EPS), of each of the other members of the Comparison Group over a six year measurement period commencing on January 1, 2018 and ending on December 31, 2023.

The Time Vesting and TSR Performance RSUs subject to the 2017 Special RSU grants vested on December 1, 2023, while the EPS Performance RSUs subject to the 2017 Special RSU grants vested on December 31, 2023.

We granted RSUs under our 2019 Plan (Segment RSU Grant) to certain of our employees in Advisory Services and GWS segments in 2021 and 2022, with1,630,846 reflecting the maximum number of RSUs that may be issued if all of the performance targets are satisfied at their highest levels, and 465,956 RSUs that are time vesting in nature. As a condition to this Segment RSU grant, each participant has agreed to execute a Restrictive Covenants Agreement. Each Segment RSU grant consisted of:

(i) Segment Performance RSUs with respect to33.3% of the total number of target RSUs subject to the grant. The actual number of Segment Performance RSUs that will vest is determined by measuring growth in certain segment specific metrics such as client operating profit, segment operating profit and major markets over a five year measurement period commencing on January 1, 2022 and ending on December 31, 2026.

(ii) Time Vesting RSUs with respect to33.3% of the total number of target RSUs subject to the grant, which cliff vests on November 10, 2026.

(iii) EPS Performance RSUs with respect to33.3% of the total number of target RSUs subject to the grant. The actual number of EPS Performance RSUs that will vest is determined by measuring our cumulative adjusted earnings per share growth against the cumulative EPS growth, as reported under GAAP, to a comparative group comprised of each of the other companies comprising the S&P 500 on the grant date over a five year measurement period commencing on January 1, 2022 and ending on December 31, 2026.

In February 2022, we made a special grant of RSUs under our 2019 Plan (2022 Special RSU grant) to our CEO, with88,715 reflecting the maximum number of RSUs that may be issued if all of the performance targets are satisfied at their highest levels, and 25,347 RSUs that are time vesting in nature. As a condition to this 2022 Special RSU grant, the CEO has agreed to execute a Restrictive Covenants Agreement. This 2022 Special RSU grant consisted of:

(i) Total Shareholder Return (TSR) Performance RSUs with respect to33.3% of the total number of target RSUs subject to the grant. The actual number of TSR Performance RSUs that will vest is determined by measuring our cumulative TSR against the cumulative TSR of each of the other companies comprising the S&P 500 on the Grant Date (the Comparison Group) over a five year measurement period commencing on January 1, 2022 and ending on December 31, 2026. For purposes of measuring TSR, the initial value of our common stock was the average closing price of such common stock for the 60 trading days immediately preceding January 1, 2022, and the final value of our common stock will be the average closing price of such common stock for the 60 trading days immediately preceding December 31, 2026.

(ii) Time Based RSUs with respect to33.3% of the total number of target RSUs subject to the grant, vesting on February 25, 2027.

(iii) EPS Performance RSUs with respect to33.3% of the total number of target RSUs subject to the grant. The actual number of EPS Performance RSUs that will vest is determined by measuring our cumulative adjusted income per share growth against the cumulative EPS growth, as reported under GAAP (GAAP EPS), of each of the other members of the Comparison Group over a five year measurement period commencing on January 1, 2022 and ending on December 31, 2026. These RSUs vest on December 31, 2026.

We estimated the fair value of the TSR Performance RSUs referred to above on the date of the grant using a Monte Carlo simulation with the following assumptions:

	Year Ended December 31,	
	2022	**2021** [1]
Volatility of common stock	35.55 %	42.71% - 45.80%
Expected dividend yield	0.00 %	0.00 %
Risk-free interest rate	1.84 %	0.25% - 0.28%

[1] 2021 grants were made during different dates therefore a range of inputs is presented.

A summary of the status of our non-vested stock awards is presented in the table below:

	Shares/Units	Weighted Average Market Value Per Share
Balance at December 31, 2020	6,683,412	$ 47.99
Granted	2,531,959	92.16
Performance award achievement adjustments	(189,930)	49.76
Vested	(1,883,652)	46.34
Forfeited	(292,998)	55.80
Balance at December 31, 2021	6,848,791	64.10
Granted	1,796,196	95.01
Performance award achievement adjustments	409,851	77.99
Vested	(1,372,123)	57.74
Forfeited	(269,636)	79.33
Balance at December 31, 2022	7,413,079	73.67
Granted	1,664,755	78.46
Performance award achievement adjustments	365,965	81.14
Vested	(4,001,675)	59.62
Forfeited	(221,545)	81.14
Balance at December 31, 2023	5,220,579	86.17

Total compensation expense related to non-vested stock awards was $96.2 million, $160.3 million and $184.9 million for the years ended December 31, 2023, 2022 and 2021, respectively. At December 31, 2023, total unrecognized estimated compensation cost related to non-vested stock awards was approximately $ 181.3 million, which is expected to be recognized over a weighted average period of approximately 2.6 years.

Bonuses

We have bonus programs covering select employees, including senior management. Awards are based on the position and performance of the employee and the achievement of pre-established financial, operating and strategic objectives. The amounts charged to operating expense for bonuses were $696.6 million, $843.1 million and $871.7 million for the years ended December 31, 2023, 2022 and 2021, respectively.

401(k) Plan

Our CBRE 401(k) Plan (401(k) Plan) is a defined contribution savings plan that allows participant deferrals under Section 401(k) of the Internal Revenue Code (IRC). Most of our U.S. employees, other than qualified real estate agents having the status of independent contractors under section 3508 of the IRC of 1986, as amended, and non-plan electing union employees, are eligible to participate in the plan. The 401(k) Plan provides for participant contributions as well as a company match. A participant is allowed to contribute to the 401(k) Plan from 1% to 75% of his or her compensation, subject to limits imposed by applicable law. Active participants vest in company match contributions at 33% per year for each plan year they are employed. For 2022 and 2021, we contributed a 67% match on the first 6% of annual compensation for participants with an annual base salary of less than $100,000 and we contributed a 50% match on the first 6% of annual compensation for participants with an annual base salary of $100,000 or more, or who are commissioned employees (up to $6,000 of compensation). For 2023, we contributed 67% on the first 6% of eligible compensation contributed to the plan (up to $6,000) for all employees regardless of base compensation or commissioned status. In connection with the 401(k) Plan, we charged to expense $107.8 million, $91.1 million and $72.4 million for the years ended December 31, 2023, 2022 and 2021, respectively.

Participants are entitled to invest up to 25% of their 401(k) account balance in shares of our common stock. As of December 31, 2023, approximately 1.0 million shares of our common stock were held as investments by participants in our 401(k) Plan.

Pension Plans

We have two primary non-U.S. contributory defined benefit pension plans (major plans), both based in the U.K. Our subsidiaries maintain these plans to provide retirement benefits to existing and former employees participating in these plans. With respect to these plans, our historical policy has been to contribute annually to the plans, an amount to fund pension liabilities as actuarially determined and as required by applicable laws and regulations. Our contributions to these plans are invested by the plan trustee and, if these investments do not perform well in the future, we may be required to provide additional contributions to cover any pension underfunding. Effective July 1, 2007, we reached agreements with the active members of these plans to freeze future pension plan benefits. In return, the active members became eligible to enroll in a defined contribution plan. For these plans, as of December 31, 2023 and 2022, the fair values of pension plan assets were $243.2 million and $221.1 million, respectively, and the fair values of projected benefit obligations were $267.4 million and $247.1 million, respectively. As a result, these plans were underfunded by approximately $24.3 million and $26.0 million at December 31, 2023 and 2022, respectively.

Items not yet recognized as a component of net periodic pension cost (benefit) for the major plans were $131.8 million and $127.7 million as of December 31, 2023 and 2022, respectively, and were included in accumulated other comprehensive loss in the accompanying consolidated balance sheets. During 2023, on the major plans, the projected plan obligations included losses of $7.3 million due to plan experience. During 2022, on the major plans, the projected plan obligations included gains of $159.3 million as a result of changes in actuarial assumptions which was partially offset by $19.1 million in losses due to plan experience.

As of December 31, 2023, for all plans where total projected benefit obligations exceed plan assets, projected benefit obligations and the fair value of plan assets were $374.4 million and $295.5 million as of December 31, 2023, respectively, and $339.9 million and $270.3 million as of December 31, 2022, respectively.

As of December 31, 2023, for all plans where total accumulated benefit obligations exceed plan assets, accumulated benefit obligations and the fair value of plan assets were $361.4 million and $295.5 million as of December 31, 2023, respectively, and $329.5 million and $270.3 million as of December 31, 2022, respectively.

Net periodic pension cost for all plans was $19.8 million for the year ended December 31, 2023. Net periodic pension benefit for all plans was $8.4 million and $8.9 million for the years ended December 31, 2022 and 2021, respectively.

The following table provides amounts recognized related to all of our defined benefit pension plans within the following captions on our consolidated balance sheets (dollars in millions):

	December 31,	
	2023	**2022**
Other assets, net	$ 41	$ 56
Other liabilities	85	80

The following table presents estimated future benefit payments as of December 31, 2023. We will fund these obligations from the assets held by these plans. If the assets these plans hold are not sufficient to fund these payments, the company will fund the remaining obligations (dollars in millions):

	2024	**2025**	**2026**	**2027**	**2028**	**Thereafter**
Estimated future benefit payments for defined benefit plans	$ 49	$ 47	$ 48	$ 49	$ 51	$ 274

15. Income Taxes

The components of income before provision for income taxes consisted of the following (dollars in millions):

	Year Ended December 31,		
	2023	2022	2021
Domestic	$ 665	$ 1,275	$ 1,684
Foreign	612	383	726
Total	$ 1,277	$ 1,658	$ 2,410

Our tax provision (benefit) consisted of the following (dollars in millions):

	Year Ended December 31,		
	2023	2022	2021
Current provision:			
Federal	$ 98	$ 338	$ 275
State	31	99	115
Foreign	242	208	239
Total current provision	371	645	629
Deferred provision:			
Federal	(4)	(249)	35
State	4	(56)	(5)
Foreign	(121)	(106)	(91)
Total deferred provision	(121)	(411)	(61)
Total provision for income taxes	$ 250	$ 234	$ 568

The following is a reconciliation stated as a percentage of pre-tax income of the U.S. statutory federal income tax rate to our effective tax rate:

	Year Ended December 31,		
	2023	2022	2021
Federal statutory tax rate	21 %	21 %	21 %
Foreign rate differential	(1)	—	—
State taxes, net of federal benefit	2	3	4
Nontaxable or nondeductible items	3	2	—
Reserves for uncertain tax positions	—	1	1
Tax credits	(5)	(2)	(1)
Outside basis differences recognized as a result of a legal entity restructuring	—	(10)	—
Other	(1)	(1)	(1)
Effective tax rate	19 %	14 %	24 %

In 2022, we recognized a net tax benefit of approximately $165.8 million attributable to outside basis differences recognized as a result of a legal entity restructuring. The recognition of the outside tax basis differences generated a capital loss that offset capital gains generated during 2022. The remaining capital loss will be carried back and then forward to offset future capital gains. Based on our strong history of capital gains in the prior three years and the nature of our business, we expect to generate sufficient capital gains in the five year carry forward period and therefore concluded that it is more likely than not that we will realize the full tax benefit from the capital loss carried forward. Accordingly, we have not provided any valuation allowance against the deferred tax asset for the capital loss carried forward.

Cumulative tax effects of temporary differences are shown below (dollars in millions):

	December 31,	
	2023	2022
Assets:		
Tax losses and tax credits	$ 506	$ 369
Operating lease liabilities	343	317
Bonus and deferred compensation	334	372
Bad debt and other reserves	117	103
Pension obligation	—	1
All other	188	64
Deferred tax assets, before valuation allowance	$ 1,488	$ 1,226
Less: Valuation allowance	(357)	(255)
Deferred tax assets	$ 1,131	$ 971
Liabilities:		
Property and equipment	(55)	(21)
Unconsolidated affiliates and partnerships	(115)	(93)
Capitalized costs and intangibles	(531)	(562)
Operating lease assets	(286)	(273)
All other	(38)	(38)
Deferred tax liabilities	$ (1,025)	$ (987)
Net deferred tax assets/(liabilities)	$ 106	$ (16)

As of December 31, 2023, there were deferred tax assets before valuation allowances of approximately $471.9 million related to U.S. federal, state, and foreign net operating losses (NOLs). The majority of the NOLs are carried forward indefinitely and primarily related to the foreign jurisdictions. In certain foreign jurisdictions NOLs expire each year beginning in 2023. The utilization of NOLs may be subject to certain limitations under U.S. federal, state and foreign laws. As of December 31, 2023, we had a U.S. federal and state capital loss carryforward, net of reserves for uncertain tax position, of approximately $24.1 million which will expire after 2027, and $9.8 million foreign tax credits, which will expire after 2033. We have recorded a valuation allowance for deferred tax assets where we believe that it is more likely than not that the tax attributes will not be utilized.

We determined as of December 31, 2023, $356.5 million of deferred tax assets do not satisfy the realization criteria set forth in Topic 740. Accordingly, a valuation allowance has been recorded for this amount. If released, the entire amount would result in a benefit to continuing operations. During the year ended December 31, 2023, our valuation allowance increased by approximately $101.8 million. The increase was attributed to a build in valuation allowance of $96.7 million due to current year activities, reversal of the beginning of year valuation allowance of $6.0 million as certain foreign subsidiaries expect to utilize deferred tax assets before expiration as a result of current and forecasted earnings within the applicable jurisdiction, and an increase of $11.1 million due to foreign currency translation and tax rate changes. We believe it is more likely than not that future operations will generate sufficient taxable income to realize the benefit of our deferred tax assets recorded as of December 31, 2023, net of valuation allowance.

At December 31, 2023, we have undistributed earnings of certain foreign subsidiaries of approximately $3.8 billion for which we have indefinitely reinvested and not recognized deferred taxes. Estimating the amount of the unrecognized deferred tax is not practicable due to the complexity and variety of assumptions necessary to estimate the tax. As of December 31, 2023, we have recorded $18.6 million of deferred tax liability relating to book over tax basis in Turner & Townsend undistributed earnings.

The total amount of gross unrecognized tax benefits was approximately $413.5 million and $391.4 million as of December 31, 2023 and 2022, respectively. The total amount of unrecognized tax benefits that would affect our effective tax rate, if recognized, is $283.9 million as of December 31, 2023. The increase of $22.1 million resulted from accrual of gross unrecognized tax benefits of $28.8 million and a release of $6.7 million of gross unrecognized tax benefits primarily related to the expiration of statute of limitations in various tax jurisdictions.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (dollars in millions):

	Year Ended December 31,	
	2023	2022
Beginning balance, unrecognized tax benefits	$ (391)	$ (192)
Gross increases - tax positions in prior period	(12)	(42)
Gross decreases - tax positions in prior period	1	1
Gross increases - current-period tax positions	(18)	(167)
Decreases relating to settlements	—	1
Reductions as a result of lapse of statute of limitations	7	2
Foreign exchange movement	—	6
Ending balance, unrecognized tax benefits	$ (413)	$ (391)

Our continuing practice is to recognize accrued interest and/or penalties related to income tax matters within income tax expense. During the years ended December 31, 2023 and 2022, we accrued/(reversed) an additional $3.5 million and $(0.5) million, respectively, in interest and penalties associated with uncertain tax positions. As of December 31, 2023, we have recognized a liability for interest and penalties of $6.8 million. We believe the amount of gross unrecognized tax benefits that will be settled during the next twelve months due to filing amended returns and settling ongoing exams will not be significant.

We conduct business globally and file income tax returns in the U.S. federal jurisdiction and in multiple state, local and foreign tax jurisdictions. Our U.S. federal income tax returns for years 2016 through 2019 are currently under audit by the Internal Revenue Service. We are under audit by various states and localities including California, Massachusetts, New York, New York City, and Texas. We are also under audit by various foreign tax jurisdictions including Canada, France, Germany, and Spain. With limited exception, our significant U.S. state and foreign tax jurisdictions are no longer subject to audit by the various tax authorities for tax years prior to 2013 and 2017, respectively.

On February 13, 2024, we were notified by the Internal Revenue Service that they have completed our audit for tax years 2016 through 2019. We expect the closure of this audit to have an immaterial impact to our financial statements.

16. Stockholders' Equity

Our board of directors is authorized, subject to any limitations imposed by law, without the approval of our stockholders, to issue a total of25,000,000 shares of preferred stock, in one or more series, with each such series having rights and preferences including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, as our board of directors may determine. As of December 31, 2023 and 2022, no shares of preferred stock have been issued.

Our board of directors is authorized to issue up to525,000,000 shares of Class A common stock, $0.01 par value per share (common stock), of which 304,889,140 shares and 311,014,160 shares were issued and outstanding as of December 31, 2023 and 2022, respectively.

Stock Repurchase Program

On November 19, 2021, our board of directors authorized a program for the repurchase of up to $2.0 billion of our Class A common stock over five years (the 2021 program). On August 18, 2022, our board of directors authorized an additional $2.0 billion, bringing the total authorized repurchase amount under this program to a total of $4.0 billion. During the year ended December 31, 2023, we repurchased 7,867,348 shares of our common stock with an average price of $82.59 per share using cash on hand for an aggregate of $649.8 million under the 2021 program. During the years ended December 31, 2022 and 2021, respectively, we repurchased22,890,606 shares and 3,954,369 shares of our common stock using cash on hand for an aggregate of $1.9 billion and $372.9 million.

Our stock 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 Securities Exchange Act of 1934. Our stock repurchases have been funded with cash on hand and we intend to continue funding future repurchases with existing cash. We may utilize our stock repurchase programs 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 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. As of December 31, 2023, we had approximately $1.5 billion of capacity remaining under the 2021 program.

17. Income Per Share Information

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

	Year Ended December 31,		
	2023	2022	2021
Basic Income Per Share			
Net income attributable to CBRE Group, Inc. stockholders	$ 986	$ 1,407	$ 1,837
Weighted average shares outstanding for basic income per share	308,430,080	322,813,345	335,232,840
Basic income per share attributable to CBRE Group, Inc. stockholders	$ 3.20	$ 4.36	$ 5.48
Diluted Income Per Share			
Net income attributable to CBRE Group, Inc. stockholders	$ 986	$ 1,407	$ 1,837
Weighted average shares outstanding for basic income per share	308,430,080	322,813,345	335,232,840
Dilutive effect of contingently issuable shares	4,120,862	4,882,770	4,484,561
Weighted average shares outstanding for diluted income per share	312,550,942	327,696,115	339,717,401
Diluted income per share attributable to CBRE Group, Inc. stockholders	$ 3.15	$ 4.29	$ 5.41

For the years ended December 31, 2023, 2022 and 2021,338,711, 1,312,197 and 186,241, 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.

18. Revenue from Contracts with Customers

We account for revenue with customers in accordance with 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 receive in exchange for those services.

Disaggregated Revenue

The following tables represent a disaggregation of revenue from contracts with customers by type of service and/or segment (dollars in millions):

	Year Ended December 31, 2023				
	Advisory Services	Global Workplace Solutions	Real Estate Investments	Corporate, other and eliminations	Consolidated
Topic 606 Revenue:					
Facilities management	$ —	$ 15,205	$ —	$ —	$ 15,205
Project management	—	7,310	—	—	7,310
Advisory leasing	3,503	—	—	3	3,506
Advisory sales	1,611	—	—	—	1,611
Property management	1,928	—	—	(20)	1,908
Valuation	716	—	—	—	716
Commercial mortgage origination [1]	138	—	—	—	138
Loan servicing [2]	73	—	—	—	73
Investment management	—	—	592	—	592
Development services	—	—	345	—	345
Topic 606 Revenue	7,969	22,515	937	(17)	31,404
Out of Scope of Topic 606 Revenue:					
Commercial mortgage origination	286	—	—	—	286
Loan servicing	244	—	—	—	244
Development services [3]	—	—	15	—	15
Total Out of Scope of Topic 606 Revenue	530	—	15	—	545
Total Revenue	$ 8,499	$ 22,515	$ 952	$ (17)	$ 31,949

	Year Ended December 31, 2022				
	Advisory Services	Global Workplace Solutions	Real Estate Investments	Corporate, other and eliminations	Consolidated
Topic 606 Revenue:					
Facilities management	$ —	$ 15,201	$ —	$ —	$ 15,201
Project management	—	4,650	—	—	4,650
Advisory leasing	3,872	—	—	3	3,875
Advisory sales	2,523	—	—	—	2,523
Property management	1,849	—	—	(19)	1,830
Valuation	765	—	—	—	765
Commercial mortgage origination [1]	274	—	—	—	274
Loan servicing [2]	57	—	—	—	57
Investment management	—	—	595	—	595
Development services	—	—	404	—	404
Topic 606 Revenue	9,340	19,851	999	(16)	30,174
Out of Scope of Topic 606 Revenue:					
Commercial mortgage origination	289	—	—	—	289
Loan servicing	254	—	—	—	254
Development services [3]	—	—	111	—	111
Total Out of Scope of Topic 606 Revenue	543	—	111	—	654
Total Revenue	$ 9,883	$ 19,851	$ 1,110	$ (16)	$ 30,828

	Year Ended December 31, 2021				
	Advisory Services	Global Workplace Solutions	Real Estate Investments	Corporate, other and eliminations	Consolidated
Topic 606 Revenue:					
Facilities management	$ —	$ 14,167	$ —	$ —	$ 14,167
Project management	—	2,932	—	—	2,932
Advisory leasing	3,306	—	—	2	3,308
Advisory sales	2,790	—	—	—	2,790
Property management	1,739	—	—	(22)	1,717
Valuation	733	—	—	—	733
Commercial mortgage origination [1]	314	—	—	—	314
Loan servicing [2]	43	—	—	—	43
Investment management	—	—	556	—	556
Development services	—	—	390	—	390
Topic 606 Revenue	8,925	17,099	946	(20)	26,950
Out of Scope of Topic 606 Revenue:					
Commercial mortgage origination	388	—	—	—	388
Loan servicing	262	—	—	—	262
Development services [3]	—	—	146	—	146
Total Out of Scope of Topic 606 Revenue	650	—	146	—	796
Total Revenue	$ 9,575	$ 17,099	$ 1,092	$ (20)	$ 27,746

[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 $517.4 million ($442.9 million of which was current) and $529.1 million ($391.6 million of which was current) as of December 31, 2023 and 2022, respectively. During the year ended December 31, 2023, our contract assets decreased by $11.7 million, within our Real Estate Investments and Advisory Services segments.

We had contract liabilities totaling $304.3 million ($297.6 million of which was current) and $284.3 million ($276.3 million of which was current) as of December 31, 2023 and 2022, respectively. During the year ended December 31, 2023, we recognized revenue of $232.7 million that was included in the contract liability balance at December 31, 2022.

Contract Costs

We capitalized $39.8 million, $29.9 million and $84.9 million, respectively, of transition costs during the years ended December 31, 2023, 2022 and 2021. We recorded amortization of transition costs of $36.7 million, $42.1 million and $40.3 million, respectively, during the years ended December 31, 2023, 2022 and 2021.

19. 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. In addition, we also have a "Corporate, other and eliminations" segment. Our Corporate segment primarily consists of corporate headquarters costs for executive officers and certain other central functions. We track our strategic non-core non-controlling equity investments in "other" which is considered an operating segment and reported together with Corporate as it does not meet the aggregation criteria for presentation as a separate reportable segment. These activities are not allocated to the other business segments. Corporate and other also includes eliminations related to inter-segment revenue.

Segment operating profit (SOP) is the measure reported to the chief operating decision marker (CODM) for purposes of making decisions about allocating resources to each segment and assessing performance of each segment. Segment operating profit represents earnings, inclusive of amount attributable to non-controlling interest, before net interest expense, write-off of financing costs on extinguished debt, income taxes, depreciation and amortization and asset impairments, as well as adjustments related to the following: certain carried interest incentive compensation expense (reversal) to align with the timing of associated revenue, fair value adjustments to real estate assets acquired in the Telford acquisition (purchase accounting) that were sold in the period, costs incurred related to legal entity restructuring, efficiency and cost-reduction initiatives, integration and other costs related to acquisitions, provision associated with Telford's fire safety remediation efforts, and a one-time gain associated with remeasuring an investment in an unconsolidated subsidiary to fair value as of the date the remaining controlling interest was acquired. This metric excludes the impact of corporate overhead as these costs are reported under Corporate and other.

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

	Year Ended December 31,		
	2023	2022	2021
Revenue			
Advisory Services	$ 8,499	$ 9,883	$ 9,575
Global Workplace Solutions	22,515	19,851	17,099
Real Estate Investments	952	1,110	1,092
Corporate, other and eliminations [1]	(17)	(16)	(20)
Total revenue	$ 31,949	$ 30,828	$ 27,746
Depreciation and Amortization			
Advisory Services	$ 289	$ 311	$ 311
Global Workplace Solutions [2]	262	253	159
Real Estate Investments	15	16	27
Corporate, other and eliminations	56	33	29
Total depreciation and amortization	$ 622	$ 613	$ 526
Equity Income (Loss) from Unconsolidated Subsidiaries			
Advisory Services	$ 4	$ 15	$ 25
Global Workplace Solutions	1	1	2
Real Estate Investments	216	380	555
Corporate, other and eliminations	27	(167)	37
Total equity income from unconsolidated subsidiaries	$ 248	$ 229	$ 619
Segment Operating Profit			
Advisory Services	$ 1,364	$ 1,910	$ 2,063
Global Workplace Solutions	1,006	899	708
Real Estate Investments	239	518	520
Total reportable segment operating profit	$ 2,609	$ 3,327	$ 3,291

[1] Eliminations represent revenue from transactions with other operating segments. See Note 18.

[2] Excludes $46.4 million, $52.7 million and $52.2 million for the years ended December 31, 2023, 2022 and 2021, respectively, of amortization on vehicle finance leases utilized in client outsourcing arrangements and amortization of transition costs recorded in Cost of Revenue line item in the accompanying consolidated statement of operations.

Reconciliation of total reportable segment operating profit to net income is as follows (dollars in millions):

	Year Ended December 31,		
	2023	2022	2021
Net income attributable to CBRE Group, Inc.	$ 986	$ 1,407	$ 1,837
Net income attributable to non-controlling interests	41	17	5
Net income	1,027	1,424	1,842
Adjustments to increase (decrease) net income:			
Depreciation and amortization	622	613	526
Asset impairments	—	59	—
Interest expense, net of interest income	149	69	50
Write-off of financing costs on extinguished debt	—	2	—
Provision for income taxes	250	234	568
Carried interest incentive compensation (reversal) expense to align with the timing of associated revenue	(7)	(4)	50
Impact of fair value adjustments to real estate assets acquired in the Telford acquisition (purchase accounting) that were sold in period	—	(5)	(6)
Costs incurred related to legal entity restructuring	13	13	—
Integration and other costs related to acquisitions	62	40	44
Costs associated with efficiency and cost-reduction initiatives	159	118	—
Provision associated with Telford's fire safety remediation efforts [1]	—	186	—
One-time gain associated with remeasuring an investment in an unconsolidated subsidiary to fair value as of the date the remaining controlling interest was acquired	(34)	—	—
Corporate and other loss, including eliminations	368	578	217
Total reportable segment operating profit	$ 2,609	$ 3,327	$ 3,291

[1] See Note 22 for additional information.

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 millions):

	Year Ended December 31,		
	2023	2022	2021
Revenue			
United States	$ 17,458	$ 17,464	$ 15,700
United Kingdom	4,393	4,084	3,618
All other countries	10,098	9,280	8,428
Total revenue	$ 31,949	$ 30,828	$ 27,746

20. Related Party Transactions

The accompanying consolidated balance sheets include loans to related parties, primarily employees other than our executive officers, of $732.5 million and $600.1 million as of December 31, 2023 and 2022, respectively. The majority of these loans represent sign-on and retention bonuses issued or assumed in connection with acquisitions and prepaid commissions as well as prepaid retention and recruitment awards issued to employees. These loans are at varying principal amounts, bear interest at rates up to 7.00% per annum and mature on various dates through 2033.

See Note 10 for additional details on related party revenue and receivables disclosure for the REI segment.

21. Restructuring Activities

During the third quarter of 2022, we launched certain cost and operational efficiency initiatives to further improve the company's resiliency in an economic downturn while enabling continued operating platform investments that support future growth. The efficiency initiatives include management and workforce structure simplification, occupancy footprint rationalization and certain third-party spending reductions. Cash-based charges are primarily related to employee separation benefits, lease and certain contract exit costs, and professional fees. Non-cash charges are primarily associated with acceleration of depreciation and write-down of lease and related assets, partially offset by release of lease liability, as part of our lease termination activities. These initiatives were largely executed as of March 31, 2023.

The following tables present the detail of expenses incurred by segment (dollars in millions):

	Year Ended December 31, 2023				
	Advisory Services	Global Workplace Solutions	Real Estate Investments	Corporate	Consolidated
Employee separation benefits	$ 26	$ 32	$ 13	$ 11	$ 82
Lease exit costs	39	1	4	1	45
Professional fees and other	7	19	4	2	32
Subtotal	72	52	21	14	159
Depreciation expense	6	—	3	—	9
Total	$ 78	$ 52	$ 24	$ 14	$ 168

	Year Ended December 31, 2022				
	Advisory Services	Global Workplace Solutions	Real Estate Investments	Corporate	Consolidated
Employee separation benefits	$ 33	$ 20	$ 9	$ 19	$ 81
Lease exit costs	10	3	—	—	13
Professional fees and other	3	5	3	13	24
Subtotal	46	28	12	32	118
Depreciation expense	5	3	—	—	8
Total	$ 51	$ 31	$ 12	$ 32	$ 126

The following table shows ending liability balances associated with major cash-based charges (dollars in millions):

	Employee separation benefits	Professional fees
Balance at January 1, 2022	$ —	$ —
Expense incurred	82	23
Payments made	(45)	(13)
Balance at December 31, 2022	37	10
Expense incurred	82	32
Payments made	(106)	(42)
Balance at December 31, 2023	$ 13	$ —

Ending balances related to employee separation benefits were included in "Compensation and employee benefits payable" and the balances related to professional fees and other were included in "Accounts payable and accrued expenses" in the accompanying consolidated balance sheets. Of the total charges incurred, net of depreciation expense, $17.4 million and $33.4 million were included within the "Cost of revenue" line item, and $133.0 million and $84.1 million were included in the "Operating, administrative and other" line item in the accompanying consolidated statement of operations for the years ended December 31, 2023 and 2022, respectively.

We did not incur significant restructuring charges during the year ended December 31, 2021.

22. Telford Fire Safety Remediation

On April 28, 2022, Telford Homes signed the U.K. government's non-binding Fire Safety Pledge (the Pledge) to comply with the Building Safety Act of 2022 (BSA). The BSA introduced new laws related to building safety and the remediation of historic building safety defects, effectively requiring developers to remediate certain buildings with critical fire safety issues. The BSA also retrospectively amended the Defective Premises Act of 1972 (DPA) to allow claims to be made within a 30-year limitation period for dwellings completed before June 28, 2022. The U.K. government had previously established a Building Safety Fund (BSF) and an Aluminum Composite Material (ACM) fund, whereby applicants to the fund would be funded by the government to remediate certain fire safety defects if certain criteria were met. On March 16, 2023, Telford Homes entered into a legally binding agreement with the U.K. government, under which Telford Homes will (1) take responsibility for performing or funding remediation works relating to certain life-critical fire-safety issues on all Telford Homes-constructed buildings of 11 meters in height or greater in England constructed in the last 30 years (in-scope buildings) and (2) withdraw Telford Homes-developed buildings from the government-sponsored Building Safety Fund (BSF) and Aluminum Composite Material (ACM) Funds or reimburse the government funds for the cost of remediation of in-scope buildings.

We believe there is an obligation attributable to past events, including as a result of retrospective changes in building fire-safety regulations, under the Pledge and the legally binding agreement. During the year ended December 31, 2023, management substantially finalized the determination of in-scope buildings that require some level of remediation with assistance from internal and external experts. We believe approximately 79 buildings are in-scope as compared to 84 buildings previously deemed to be at risk.

The accompanying consolidated balance sheets include an estimated liability of approximately $192.1 million (of which $82.2 million was current) and $185.9 million (of which $51.6 million was current) as of December 31, 2023 and 2022, respectively, related to the remediation efforts. Thecurrent liability includes estimates related to remediation activities we plan to perform within one year and the net amounts that the U.K. government has already paid or quantified through the BSF for remediation of Telford-constructed buildings. The remaining balance represents estimates developed by Telford's internal team and/or third-party experts for the remaining in-scope buildings. The overall balance increased during 2023 primarily due to the movement of foreign exchange rates, partially offset by costs incurred for work performed in 2023. We did not record any additional provision during the year ended December 31, 2023, as the above balance remains our best estimate of future losses associated with overall remediation efforts. We did not have any significant cash outflows related to this work in 2023.

To the extent management did not have comprehensive cost assessments for certain buildings, the liability was estimated using the best available data, including (i) industry data, (ii) certain cost assumptions applied to scope of remediation work on specific building as identified by fire safety assessments (also known as PAS assessments, which include fire risk appraisal of external wall construction), and (iii) bids from subcontractors. We applied an inflation factor to account for the extended period of time during which the remediation work will be performed, an estimate of direct costs associated with an internal team dedicated to this remediation, and a contingency to account for unknown remediation costs.

The estimated remediation costs for in-scope buildings are subjective, highly complex and dependent on a number of variables outside of Telford Homes' control. These include, but are not limited to, individual remediation requirements for each building, the time required for the remediation to be completed, cost of construction or remediation materials, availability of construction materials, potential discoveries made during remediation that could necessitate incremental work, investigation costs, availability of qualified fire safety engineers, potential business disruption costs, potential changes to or new regulations and regulatory approval. We will continue to assess new information as it becomes available during the remediation process and adjust our estimated liability accordingly.

23. Subsequent Events

On February 5, 2024, we announced a definitive agreement to acquire J&J Worldwide Services, a leading provider of engineering services, base support operations and facilities maintenance for the U.S. federal government, from Arlington Capital Partners, a private investment firm. The consideration consists of (i) an initial purchase price of $800 million, payable in cash at closing of the acquisition, plus (ii) a potential earn-out of up to $250 million, payable in cash in 2027 contingent on the acquired business meeting certain performance thresholds. Closing of the acquisition is expected to occur in Q1 2024, subject to obtaining applicable regulatory clearances and the satisfaction of other customary closing conditions.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Securities Exchange Act of 1934, as amended (the Exchange Act)). The company's management, with participation of the CEO and CFO, under the oversight of our Board of Directors, evaluated the effectiveness of the company's internal control over financial reporting as of December 31, 2023, using the framework in Internal Control - Integrated Framework (2013), issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). A company's internal control over financial reporting includes those policies and procedures that:

(1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company;

(2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and

(3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness towards future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

Based on the evaluation under this framework, management concluded that the company's internal control over financial reporting was effective as of December 31, 2023.

The effectiveness of the company's internal control over financial reporting as of December 31, 2023 has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report, which is included herein on page 54.

Disclosure Controls and Procedures

Our Chief Executive Officer and Chief Financial Officer ("certifying officers") have conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d- 15(e) under the Exchange Act) as of December 31, 2023. Based on this evaluation, our certifying officers concluded that our disclosure controls and procedures are effective as of December 31, 2023.

Rule 13a-15 of the Exchange Act 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 Annual 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 members of our Disclosure Committee. Our Disclosure Committee consists of our General Counsel, our Chief Accounting Officer, our Senior Officers of significant business lines and other select employees.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting during the fiscal quarter ended December 31, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

During the three months ended December 31, 2023, none of our officers or directors adopted or terminated any contract, instruction or written plan for the purchase or sale of our securities that was intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) or any "non-Rule 10b5-1 trading arrangement".

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information under the headings "Elect Directors," "Corporate Governance," "Executive Management" and "Stock Ownership" in the definitive proxy statement for our 2024 Annual Meeting of Stockholders is incorporated herein by reference. The Proxy Statement will be filed with the SEC within 120 days of the fiscal year ended December 31, 2023.

We are filing the certifications by the Chief Executive Officer and Chief Financial Officer required under Section 302 of the Sarbanes-Oxley Act as exhibits to this Annual Report.

Item 11. Executive Compensation.

The information contained under the headings "Corporate Governance," "Compensation Discussion and Analysis" and "Executive Compensation" in the definitive proxy statement for our 2024 Annual Meeting of Stockholders is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information contained under the heading "Stock Ownership" in the definitive proxy statement for our 2024 Annual Meeting of Stockholders is incorporated herein by reference.

Equity Compensation Plan Information

The following table summarizes information about our equity compensation plans as of December 31, 2023. All outstanding awards relate to our Class A common stock.

	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights (a)	Weighted-average Exercise Price of Outstanding Options, Warrants and Rights (b)	Number of Securities Remaining Available for Future Issuance under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) (c)
Equity compensation plans approved by security holders [1]	9,466,626	$ —	9,040,592
Equity compensation plans not approved by security holders	—	—	—
Total	9,466,626	$ —	9,040,592

[1] Consists of restricted stock units (RSUs) issued under our 2019 Equity Incentive Plan (the 2019 Plan) and our 2017 Equity Incentive Plan (the 2017 Plan). Our 2017 Plan terminated in May 2019 in connection with the adoption of the 2019 Plan. We cannot issue any further awards under the 2017 Plan.

In addition:

- The figures in the foregoing table include:
  - 5,491,187 RSUs that are performance vesting in nature, with the figures in the table reflecting the maximum number of RSUs that may be issued if all performance-based targets are satisfied and
  - 3,975,439 RSUs that are time vesting in nature.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information contained under the headings "Elect Directors," "Corporate Governance" and "Related-Party Transactions" in the definitive proxy statement for our 2024 Annual Meeting of Stockholders is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services.

The information contained under the heading "Audit and Other Fees" in the definitive proxy statement for our 2024 Annual Meeting of Stockholders is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

1. *Financial Statements*

   See Index to Consolidated Financial Statements and Financial Statement Schedules located on page 50 of this report.

2. *Financial Statement Schedules*

   See Schedule II located on page 115 of this report.

3. *Exhibits*

   See Exhibit Index located on page 116 of this report.

Item 16. Form 10-K Summary.

Not applicable.

CBRE GROUP, INC.
SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS
(Dollars in millions)

	Allowance for Doubtful Accounts
Balance, December 31, 2020	$ 95
Additions: Charges to expense	18
Deductions: Write-offs, payments and other	16
Balance, December 31, 2021	97
Additions: Charges to expense	17
Deductions: Write-offs, payments and other	22
Balance, December 31, 2022	92
Additions: Charges to expense	34
Deductions: Write-offs, payments and other	24
Balance, December 31, 2023	$ 102

EXHIBIT INDEX

Exhibit No.	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	SEC File No.	Exhibit	Filing Date	
2.1	Share Sale Agreement, dated November 12, 2013, by and among William Investments Limited, the individual vendors named therein, CBRE Holdings Limited, CBRE U.K. Acquisition Company Limited and CBRE Group, Inc.	8-K	001-32205	1.01	11/13/2013	
2.2	Stock and Asset Purchase Agreement, dated as of March 31, 2015, by and between Johnson Controls, Inc. and CBRE, Inc.	8-K	001-32205	2.1	04/03/2015	
2.3	Acquisition Agreement, dated as of July 26, 2021, among Turner & Townsend Partners LLP, CBRE Titan Acquisition Co. Limited, CBRE Group, Inc.	8-K	001-32205	2.1	07/29/2021	
2.4	Amended and Restated Variation Agreement, dated as of November 9, 2021, between Turner & Townsend Partners LLP, CBRE Titan Acquisition Co. Limited, CBRE Group, Inc. and Turner & Townsend Holdings Limited	10-K	001-32205	2.4	03/01/2022	
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	11/17/2023	
4.1	Form of Class A common stock certificate of CBRE Group, Inc.	10-Q	001-32205	4.1	08/09/2017	
4.2(a)	Indenture, dated as of March 14, 2013, among CBRE Group, Inc., CBRE Services, Inc., certain subsidiaries of CBRE Services, Inc. and Wells Fargo Bank, National Association, as trustee	10-Q	001-32205	4.4(a)	05/10/2013	
4.2(b)	Fourth Supplemental Indenture, dated as of August 13, 2015, between CBRE Services, Inc., CBRE Group, Inc., certain subsidiaries of CBRE Services, Inc. and Wells Fargo Bank, National Association, as trustee, for the issuance of 4.875% Senior Notes due 2026, including the Form of 4.875% Senior Notes due 2026	8-K	001-32205	4.2	08/13/2015	
4.2(c)	Seventh Supplemental Indenture, dated as of March 18, 2021, among CBRE Group, Inc., CBRE Services, Inc., certain subsidiaries of CBRE Services, Inc. named therein and Wells Fargo Bank, National Association, as trustee, for the issuance of 2.500% Senior Notes due 2031, including the Form of 2.500% Senior Notes due 2031	8-K	001-32205	4.2	03/18/2021	
4.2(d)	Eighth Supplemental Indenture, dated as of June 23, 2023, among CBRE Group, Inc., CBRE Services, Inc. and Computershare Trust Company, National Association, as successor to Wells Fargo Bank, National Association, as trustee, for the issuance of 5.950% Senior Notes due 2034, including the Form of 5.950% Senior Notes due 2034	8-K	001-32205	4.2	06/23/2023	
4.3	Description of Securities	10-K	001-32205	4.3	03/02/2020	
10.1	Credit Agreement, dated as of July 10, 2023, among CBRE Group, Inc., CBRE Services, Inc., Relam Amsterdam Holdings B.V., the lenders party thereto and Wells Fargo Bank, National Association, as administrative agent	8-K	001-32205	10.1	07/10/2023	

Exhibit No.	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	SEC File No.	Exhibit	Filing Date	
10.2	Guarantee Agreement, dated as of July 10, 2023, among Relam Amsterdam Holdings B.V., CBRE Services, Inc., CBRE Group, Inc. and Wells Fargo Bank, National Association, as administrative agent	8-K	001-32205	10.2	07/10/2023	
10.3	Revolving Credit Agreement, dated as of August 5, 2022, among CBRE Group, Inc., CBRE Services, Inc., the lenders party thereto, the issuing banks party thereto and Wells Fargo Bank, National Association, as administrative agent	8-K	001-32205	10.2	08/08/2022	
10.4	Amendment No. 1, dated as of May 3, 2023, to the Revolving Credit Agreement dated as of August 5, 2022, among CBRE Group, Inc., CBRE Services, Inc., the lenders party thereto, the issuing banks party thereto and Wells Fargo Bank, National Association, as administrative agent	10-Q	001-32205	10.1	07/27/2023	
10.5	Holdings Guaranty Agreement, dated as of August 5, 2022, among CBRE Group, Inc., CBRE Services, Inc. and Wells Fargo Bank, National Association, as administrative agent.	8-K	001-32205	10.3	08/08/2022	
10.6	CBRE Group, Inc. Executive Bonus Plan +	8-K	001-32205	10.1	03/08/2021	
10.7	Form of Indemnification Agreement for Directors and Officers +	8-K	001-32205	10.1	12/08/2009	
10.8	Form of Indemnification Agreement for Directors and Officers +	10-Q	001-32205	10.3	05/10/2016	
10.9	CBRE Group, Inc. 2017 Equity Incentive Plan +	S-8	333-218113	99.1	05/19/2017	
10.10	CBRE Group, Inc. Amended and Restated 2019 Equity Incentive Plan +	S-8	333-26594	99.1	05/27/2022	
10.11	Form of Grant Notice and Restricted Stock Unit Agreement for the CBRE Group, Inc. 2019 Equity Incentive Plan (Time Vest) +	10-K	001-32205	10.23	03/01/2022	
10.12	Form of Grant Notice and Restricted Stock Unit Agreement for the CBRE Group, Inc. 2019 Equity Incentive Plan (Performance Vest) +	10-K	001-32205	10.24	03/01/2022	
10.13	Form of Grant Notice and Restricted Stock Unit Agreement for the CBRE Group, Inc. 2019 Equity Incentive Plan (Non-Employee Director) +	10-K	001-32205	10.25	03/01/2022	
10.14	CBRE Deferred Compensation Plan, effective January 1, 2019 +	10-K	001-32205	10.22	03/01/2019	
10.15	CBRE Adoption Agreement +					X
10.16	CBRE Group, Inc. Amended and Restated Change in Control and Severance Plan for Senior Management, including form of Designation Letter +	10-Q	001-32205	10.1	10/29/2020	
10.17	Form of Restricted Covenants Agreement +	10-K	001-32205	10.33	03/01/2018	
10.18	Letter Agreement, dated as of July 28, 2021, by and between CBRE, Inc. and Emma Giamartino +	10-Q	001-32205	10.3	07/30/2021	
10.19	Form of Restrictive Covenants Agreement +	10-Q	001-32205	10.4	07/30/2021	
10.20	Letter Agreement, dated as of February 23, 2022, by and between CBRE, Inc. and Chandra Dhandapani +	10-K	001-32205	10.34	03/01/2022	
10.21	Separation Agreement, dated as of January 20, 2023 by and between CBRE Group, Inc. and Michael J. Lafitte +	10-K	001-32205	10.33	02/27/2023	
21	Subsidiaries of CBRE Group, Inc.					X

Exhibit No.	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	SEC File No.	Exhibit	Filing Date	
22.1	Subsidiary Issuers and Guarantors of CBRE Group, Inc.'s Registered Debt					X
23.1	Consent of Independent Registered Public Accounting Firm					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
97	CBRE Group, Inc. Amended and Restated Policy Regarding Recoupment of Certain Executive Compensation					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 Section 13 or 15(d) 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.
Registrant

Date: February 20, 2024

/s/ ROBERT E. SULENTIC
Robert E. Sulentic
Chair of the Board, President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ BRANDON B. BOZE **Brandon B. Boze**	Director	February 20, 2024
/s/ LINDSEY S. CAPLAN **Lindsey S. Caplan**	Chief Accounting Officer (Principal Accounting Officer)	February 20, 2024
/s/ BETH F. COBERT **Beth F. Cobert**	Director	February 20, 2024
/s/ EMMA E. GIAMARTINO **Emma E. Giamartino**	Chief Financial Officer (Principal Financial Officer)	February 20, 2024
/s/ REGINALD H. GILYARD **Reginald H. Gilyard**	Director	February 20, 2024
/s/ SHIRA D. GOODMAN **Shira D. Goodman**	Director	February 20, 2024
/s/ E.M. BLAKE HUTCHESON **E.M. Blake Hutcheson**	Director	February 20, 2024
/s/ CHRISTOPHER T. JENNY **Christopher T. Jenny**	Director	February 20, 2024
/s/ GERARDO I. LOPEZ **Gerardo I. Lopez**	Director	February 20, 2024
/s/ SUSAN MEANEY **Susan Meaney**	Director	February 20, 2024
/s/ OSCAR MUNOZ **Oscar Munoz**	Director	February 20, 2024
/s/ ROBERT E. SULENTIC **Robert E. Sulentic**	Chair of the Board, President and Chief Executive Officer (Principal Executive Officer)	February 20, 2024
/s/ SANJIV YAJNIK **Sanjiv Yajnik**	Director	February 20, 2024

ADOPTION AGREEMENT

1.01 PREAMBLE

By the execution of this Adoption Agreement the Plan Sponsor hereby [complete (a) or (b)]

(a) ☐ adopts a new plan as of [month, day, year]

(b) ☒ amends and restates its existing plan as of January 1, 2024 [month, day, year] which is the Amendment Restatement Date. Except as otherwise provided in Appendix A, all amounts deferred under the Plan prior to the Amendment Restatement Date shall be governed by the terms of the Plan as in effect on the day before the Amendment Restatement Date.

Original Effective Date: April 15, 2012 [month, day, year]

Pre-409A Grandfathering: ☐ Yes ☒ No

1.02 PLAN

Plan Name: CBRE Deferred Compensation Plan
Plan Year: January 1 – December 31

1.03 PLAN SPONSOR

Name:	CBRE Services, Inc.
Address:	2100 Ross Avenue, Suite 1600, Dallas, TX 75201
Phone # :	
EIN:	52-1616016
Fiscal Yr:	

Is stock of the Plan Sponsor, any Employer or any Related Employer publicly traded on an established securities market?

☒ Yes ☐ No

1.04 EMPLOYER

The following entities have been authorized by the Plan Sponsor to participate in and have adopted the Plan (insert "Not Applicable" if none have been authorized):

Entity	Publicly Traded on Est. Securities Market	
	Yes	No
CBRE Group, Inc.	☒	☐
All direct and indirect subsidiaries of CBRE Group, Inc.	☐	☒
	☐	☐
	☐	☐
	☐	☐
	☐	☐

1.05 ADMINISTRATOR

The Plan Sponsor has designated the following party or parties to be responsible for the administration of the Plan:

Name: Chief Executive Officer of CBRE Services, Inc. or a committee consisting of three or more individuals selected by the Chief Executive Officer of CBRE Services, Inc.

Address: _____

Note: The Administrator is the person or persons designated by the Plan Sponsor to be responsible for the administration of the Plan. Neither Fidelity Employer Services Company nor any other Fidelity affiliate can be the Administrator.

1.06 KEY EMPLOYEE DETERMINATION DATES

The Employer has designated as the Identification Date for purposes of determining Key Employees.

In the absence of a designation, the Identification Date is December 31.

The Employer has designated as the effective date for purposes of applying the six month delay in distributions to Key Employees.

In the absence of a designation, the effective date is the first day of the fourth month following the Identification Date.

2.01 PARTICIPATION

(a) ☒ Employees [complete (i), (ii) or (iii)]

(i) ☐ Eligible Employees are selected by the Employer.

(ii) ☒ Eligible Employees are those employees of the Employer who satisfy the following criteria:

A select group of management or highly compensated employees as determined each year by the Administrator

(iii) ☐ Employees are not eligible to participate.

(b) ☒ Directors [complete (i), (ii) or (iii)]

(i) ☐ All Directors are eligible to participate.

(ii) ☒ Only Directors selected by the Administrator each year are eligible to participate.

(iii) ☐ Directors are not eligible to participate.

(c) Effective as of January 1, 2019, Qualified Real Estate Agents as selected by the Administrator each year are eligible to participate

3.01 COMPENSATION

For purposes of determining Participant contributions under Article 4 and Employer contributions under Article 5, Compensation shall be defined in the following manner [complete (a) or (b) and select (c) and/or (d), if applicable]:

(a) ☒ Compensation is defined as:

Base Compensation

Bonuses (excluding: (1) a Bonus that relates to services performed in or before the year in which the applicable deferral election is made, and (2) any production or retention Bonus that is associated with the repayment of a loan previously made to a Participant by the Employer)

Commissions

(b) ☐ Compensation as defined in [insert name of qualified plan] without regard to the limitation in Section 401(a)(17) of the Code for such Plan Year.

(c) ☒ Director Compensation is defined as:

Retainer

Meeting Fees

(d) ☐ Compensation shall, for all Plan purposes, be limited to $.

(e) ☐ Not Applicable.

3.02 BONUSES

Compensation, as defined in Section 3.01 of the Adoption Agreement, includes the following type of bonuses that will be the subject of a separate deferral election:

Type	Will be treated as Performance Based Compensation	
	Yes	No
Bonuses	☐	☒
	☐	☐
	☐	☐
	☐	☐
	☐	☐

☐ Not Applicable.

4.01 PARTICIPANT CONTRIBUTIONS

If Participant contributions are permitted, complete (a), (b), and (c). Otherwise complete (d).

(a) Amount of Deferrals

A Participant may elect within the period specified in Section 4.01(b) of the Adoption Agreement to defer the following amounts of remuneration. For each type of remuneration listed, complete "dollar amount" and / or "percentage amount".

(i) Compensation Other than Bonuses [do not complete if you complete (iii)]

Type of Remuneration	Dollar Amount		% Amount		Increment
	Min	Max	Min	Max	
(a) Base Compensation			1%	50%	1%
(a) Commissions			1%	50%	1%
(a)					

Note: The increment is required to determine the permissible deferral amounts. For example, a minimum of 0% and maximum of 20% with a 5% increment would allow an individual to defer 0%, 5%, 10%, 15% or 20%.

(ii) Bonuses [do not complete if you complete (iii)]

Type of Bonus	Dollar Amount		% Amount		Increment
	Min	Max	Min	Max	
(a) Bonuses			1	100%	1%
(b)					
(c)					

(iii) Compensation [do not complete if you completed (i) and (ii)]

Dollar Amount		% Amount		Increment
Min	Max	Min	Max	

(iv) Director Compensation

Type of Compensation	Dollar Amount		% Amount		Increment
	Min	Max	Min	Max	
Annual Retainer			1%	100%	1%
Meeting Fees			1%	100%	1%
Other:					
Other:					

(b) Election Period

(i) Performance Based Compensation

A special election period

☐ Does ☒ Does Not

apply to each eligible type of performance based compensation referenced in Section 3.02 of the Adoption Agreement.

The special election period, if applicable, will be determined by the Employer.

(ii) Newly Eligible Participants

An employee who is classified or designated as an Eligible Employee during a Plan Year

☒ May ☐ May Not

elect to defer Compensation earned during the remainder of the Plan Year by completing a deferral agreement within the 30 day period beginning on the date he is eligible to participate in the Plan.

(c) Revocation of Deferral Agreement

A Participant's deferral agreement

☐ Will
☒ Will Not

be cancelled for the remainder of any Plan Year during which he receives a hardship distribution of elective deferrals from a qualified cash or deferred arrangement maintained by the Employer to the extent necessary to satisfy the requirements of Reg. Sec. 1.401(k)-1(d)(3). If cancellation occurs, the Participant may resume participation in accordance with Article 4 of the Plan.

(d) No Participant Contributions

☐ Participant contributions are not permitted under the Plan.

5.01 EMPLOYER CONTRIBUTIONS

If Employer contributions are permitted, complete (a) and/or (b). Otherwise complete (c).

(a) Matching Contributions

(i) Amount

For each Plan Year, the Employer shall make a Matching Contribution on behalf of each Participant who defers Compensation for the Plan Year and satisfies the requirements of Section 5.01(a)(ii) of the Adoption Agreement equal to [complete the ones that are applicable]:

(A) ☐ [insert percentage] of the Compensation the Participant has elected to defer for the Plan Year

(B) ☐ An amount determined by the Employer in its sole discretion

(C) ☐ Matching Contributions for each Participant shall be limited to $ and/or % of Compensation.

(D) ☐ Other:

_____

_____

(E) ☐ Not Applicable [Proceed to Section 5.01(b)]

(ii) Eligibility for Matching Contribution

A Participant who defers Compensation for the Plan Year shall receive an allocation of Matching Contributions determined in accordance with Section 5.01(a)(i) provided he satisfies the following requirements [complete the ones that are applicable]:

(A) ☐ Describe requirements:

_____

_____

(A) ☐ Is selected by the Employer in its sole discretion to receive an allocation of Matching Contributions

(A) ☐ No requirements

(iii) Time of Allocation

Matching Contributions, if made, shall be treated as allocated [select one]:

(A) ☐ As of the last day of the Plan Year

(A) ☐ At such times as the Employer shall determine in it sole discretion

(A) ☐ At the time the Compensation on account of which the Matching Contribution is being made would otherwise have been paid to the Participant

(A) ☐ Other: _____
_____

(b) Other Contributions

(i) Amount

The Employer shall make a contribution on behalf of each Participant who satisfies the requirements of Section 5.01(b)(ii) equal to [complete the ones that are applicable]:

(A) ☐ An amount equal to [insert number] % of the Participant's Compensation

(A) ☐ An amount determined by the Employer in its sole discretion

(A) ☐ Contributions for each Participant shall be limited to $____

(A) ☐ Other: _____
_____
_____

(A) ☐ Not Applicable [Proceed to Section 6.01]

(ii) Eligibility for Other Contributions

A Participant shall receive an allocation of other Employer contributions determined in accordance with Section 5.01(b)(i) for the Plan Year if he satisfies the following requirements [complete the one that is applicable]:

(A) ☐ Describe requirements:

_____

_____

(A) ☐ Is selected by the Employer in its sole discretion to receive an allocation of other Employer contributions

(A) ☐ No requirements

(iii) Time of Allocation

Employer contributions, if made, shall be treated as allocated [select one]:

(A) ☐ As of the last day of the Plan Year

(A) ☐ At such time or times as the Employer shall determine in its sole discretion

(A) ☐ Other:

_____

_____

_____

(c) No Employer Contributions

☒ Employer contributions are not permitted under the Plan.

6.01 DISTRIBUTIONS

The timing and form of payment of distributions made from the Participant's vested Account shall be made in accordance with the elections made in this Section 6.01 of the Adoption Agreement except when Section 9.6 of the Plan requires a six month delay for certain distributions to Key Employees of publicly traded companies.

(a) Timing of Distributions

(i) All distributions shall commence in accordance with the following [choose one]:

(A) ☒ As soon as administratively feasible following the distribution event but in no event later than the time prescribed by Treas. Reg. Sec. 1.409A-3(d).

(B) ☐ Monthly on specified day ___ [insert day]

(C) ☐ Annually on specified month and day [insert month and day]

(D) ☐ Calendar quarter on specified month and day [month of quarter (insert 1,2 or 3);___day (insert day)]

(ii) The timing of distributions as determined in Section 6.01(a)(i) shall be modified by the adoption of:

(A) ☒ Event Delay – Distribution events other than those based on Specified Date or Specified Age will be treated as not having occurred for ___6___ months [insert number of months].

(B) ☐ Hold Until Next Year – Distribution events other than those based on Specified Date or Specified Age will be treated as not having occurred for twelve months from the date of the event if payment pursuant to Section 6.01(a)(i) will thereby occur in the next calendar year or on the first payment date in the next calendar year in all other cases.

(C) ☐ Immediate Processing – The timing method selected by the Plan Sponsor under Section 6.01(a)(i) shall be overridden for the following distribution events [insert events]:

_____

_____

(D) ☐ Not applicable.

(b) Distribution Events

Participants may elect one of the following payment events and the associated form or forms of payment. For installments, insert the range of available periods (e.g., 5-15) or insert the periods available (e.g., 5,7,9).

			Lump Sum	Installments
(i)	☒	Specified Date	x	2-5 years
(i)	☐	Specified Age		years
(i)	☐	Separation from Service	_____	_____ years
(i)	☒	Separation from Service plus 6 months	x	2-5 years
(i)	☐	Separation from Service plus months [not to exceed months]		years
(i)	☐	Retirement		years
(i)	☐	Retirement plus 6 months		years
(i)	☐	Retirement plus months [not to exceed months]		years
(ix)	☐	Disability		years
(x)	☐	Death		years
(xi)	☐	Change in Control		years

The minimum deferral period for Specified Date or Specified Age event shall be two (2) years.

Installments may be paid [select each that applies]

☐ Monthly
☐ Quarterly
☒ Annually

(c) Specified Date and Specified Age elections may not extend beyond age Not Applicable [insert age or "Not Applicable" if no maximum age applies].

(d) Payment Election Override

Payment of the remaining vested balance of the Participant's Account will automatically occur at the time specified in Section 6.01(a) of the Adoption Agreement in the form indicated upon the earliest to occur of the following events [check each event that applies and for each event include only a single form of payment]:

	EVENTS		FORM OF PAYMENT	
☐	Separation from Service plus six months	_____ Lump sum	_____	Installments
☒	Separation from Service before Retirement plus six (6) months	x Lump sum	_____	Installments
☐	Death	_____ Lump sum	_____	Installments
☐	Disability	_____ Lump sum	_____	Installments
☐	Not Applicable			

The provisions of this Section 6.01(d) shall not apply to Participants who are non-employee Directors.

(e) Involuntary Cashouts

☐ If the Participant's vested Account at the time of his Separation from Service does not exceed $ _____ distribution of the vested Account shall automatically be made in the form of a single lump sum in accordance with Section 9.5 of the Plan.

☒ There are no involuntary cashouts.

(f) Retirement

☒ Retirement shall be defined as a Separation from Service that occurs on or after the Participant [insert description of requirements]:

Attainment of age 62 and completion of ten (10) years of service (using the elapsed time method from date of hire)

☐ No special definition of Retirement applies.

(g) Distribution Election Change

A Participant

☐ Shall
☒ Shall Not

be permitted to modify a scheduled distribution date and/or payment option in accordance with Section 9.2 of the Plan.

A Participant shall generally be permitted to elect such modification _____ number of times.

Administratively, allowable distribution events will be modified to reflect all options necessary to fulfill the distribution change election provision.

(h) Frequency of Elections

The Plan Sponsor

☒ Has
☐ Has Not

Elected to permit annual elections of a time and form of payment for amounts deferred under the Plan. If a single election of a time and/or form of payment is required, the Participant will make such election at the time he first completes a deferral agreement which, in all cases, will be no later than the time required by Reg. Sec. 1.409A-2.

7.01 VESTING

(a) Matching Contributions

The Participant's vested interest in the amount credited to his Account attributable to Matching Contributions shall be based on the following schedule:

	Years of Service	Vesting %	
☐	0	_____	(insert '100' if there is immediate vesting)
	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		

☐ Other:
_____
_____

☐ Class year vesting applies.
_____

☒ Not applicable.

(b) Other Employer Contributions

The Participant's vested interest in the amount credited to his Account attributable to Employer contributions other than Matching Contributions shall be based on the following schedule:

	Years of Service	Vesting %	
☐	0		(insert '100' if there is immediate vesting)
	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		

☐ Other:
_____
_____

☐ Class year vesting applies.
_____

☒ Not applicable.

(c) Acceleration of Vesting

A Participant's vested interest in his Account will automatically be 100% upon the occurrence of the following events: [select the ones that are applicable]:

(i) ☐ Death

(i) ☐ Disability

(i) ☐ Change in Control

(i) ☐ Eligibility for Retirement

(i) ☐ Other: _____

_____

(i) ☒ Not applicable.

(d) Years of Service

(i) A Participant's Years of Service shall include all service performed for the Employer and

☐ Shall

☐ Shall Not

include service performed for the Related Employer.

(ii) Years of Service shall also include service performed for the following entities:

_____

_____

_____

_____

_____

_____

(iii) Years of Service shall be determined in accordance with (select one)

(A) ☐ The elapsed time method in Treas. Reg. Sec. 1.410(a)-7

(B) ☐ The general method in DOL Reg. Sec. 2530.200b-1 through b-4

(C) ☐ The Participant's Years of Service credited under [insert name of plan]
_____
_____

(D) ☐ Other: _____
_____
_____

(iv) ☒ Not applicable.

8.01 UNFORESEEABLE EMERGENCY

(a) A withdrawal due to an Unforeseeable Emergency as defined in Section 2.24:

☐ Will
☒ Will Not [if Unforeseeable Emergency withdrawals are not permitted, proceed to Section 9.01]

be allowed.

(b) Upon a withdrawal due to an Unforeseeable Emergency, a Participant's deferral election for the remainder of the Plan Year:

☐ Will
☐ Will Not

be cancelled. If cancellation occurs, the Participant may resume participation in accordance with Article 4 of the Plan.

9.01 INVESTMENT DECISIONS

Investment decisions regarding the hypothetical amounts credited to a Participant's Account shall be made by [select one]:

(a) ☒ The Participant or his Beneficiary
(b) ☐ The Employer

10.01 TRUST

The Employer [select one]:

☒ Does
☐ Does Not

intend to establish a rabbi trust as provided in Article 11 of the Plan.

11.01 TERMINATION UPON CHANGE IN CONTROL

The Plan Sponsor

☒ Reserves
☐ Does Not Reserve

the right to terminate the Plan and distribute all vested amounts credited to Participant Accounts upon a Change in Control as described in Section 9.7.

11.02 AUTOMATIC DISTRIBUTION UPON CHANGE IN CONTROL

Distribution of the remaining vested balance of each Participant's Account

☐ Shall
☒ Shall Not

automatically be paid as a lump sum payment upon the occurrence of a Change in Control as provided in Section 9.7.

11.03 CHANGE IN CONTROL

A Change in Control for Plan purposes includes the following [select each definition that applies]:

(a) ☒ A change in the ownership of the Employer as described in Section 9.7(c) of the Plan.

(b) ☒ A change in the effective control of the Employer as described in Section 9.7(d) of the Plan.

(c) ☒ A change in the ownership of a substantial portion of the assets of the Employer as described in Section 9.7(e) of the Plan.

(d) ☐ Not Applicable.

12.01 GOVERNING STATE LAW

The laws of Delaware shall apply in the administration of the Plan to the extent not preempted by ERISA.

EXECUTION PAGE

The Plan Sponsor has caused this Adoption Agreement to be executed on

Date:

PLAN SPONSOR: CBRE Services, Inc.

By: _____

Name: _____

Title: _____

APPENDIX A

SPECIAL EFFECTIVE DATES

The plan document effective April 15, 2012, as amended prior to January 1, 2019, is hereby incorporated by reference as if fully rewritten herein.

EXHIBIT 21

SUBSIDIARIES OF CBRE GROUP, INC.

AT DECEMBER 31, 2023

The following is a list of subsidiaries of CBRE Group, Inc. (the "Company") as of December 31, 2023, omitting subsidiaries which, considered in the aggregate as if they were a single subsidiary, would not constitute a significant subsidiary.

Name	State (or Country) of Incorporation
CBRE Services, Inc.	Delaware
CBRE, Inc.	Delaware
CBRE Holdco, Inc.	Delaware
CBRE Holdings, LLC	Delaware
CBRE Partner, Inc.	Delaware
CBRE Capital Markets, Inc.	Texas
CBRE Holdings Limited	United Kingdom
CBRE Limited	United Kingdom
Turner & Townsend Holdings Limited	United Kingdom
CBRE Global Acquisition Company	Luxembourg
Relam Amsterdam Holdings B.V.	The Netherlands
Acquisition Company Finance Limited	United Kingdom
CBRE US Liftco, LLC	Delaware

EXHIBIT 22.1

SUBSIDIARY ISSUERS AND GUARANTORS OF CBRE GROUP, INC.'S REGISTERED DEBT

AT DECEMBER 31, 2023

CBRE Services, Inc., a subsidiary of CBRE Group, Inc., is the issuer of the 5.950%, 4.875% and 2.500% senior notes (as defined in CBRE Group, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2023), which are guaranteed by CBRE Group, Inc.

EXHIBIT 23.1

Consent of Independent Registered Public Accounting Firm

The Board of Directors
CBRE Group, Inc.:

We consent to the incorporation by reference in the registration statements (Nos. 333-116398, 333-181235, 333-218113, 333-231572, and 333-265294 on Form S-8 and No. 333-276141 on Form S-3 of our reports dated February 20, 2024, with respect to the consolidated financial statements of CBRE Group, Inc. and the effectiveness of internal control over financial reporting.

/s/ KPMG LLP

Los Angeles, California

February 20, 2024

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 Annual Report on Form 10-K 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: February 20, 2024

/s/ ROBERT E. SULENTIC
Robert E. Sulentic
Chair of the Board, 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, Emma E. Giamartino, certify that:

1) I have reviewed this Annual Report on Form 10-K 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: February 20, 2024

/s/ EMMA E. GIAMARTINO

Emma E. Giamartino

Chief Financial Officer
(Principal 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 Emma E. Giamartino, 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 Annual Report on Form 10-K for the period ended December 31, 2023, 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: February 20, 2024

/s/ ROBERT E. SULENTIC
Robert E. Sulentic
Chair of the Board, President and Chief Executive Officer

Date: February 20, 2024

/s/ EMMA E. GIAMARTINO
Emma E. Giamartino
Chief Financial Officer
(Principal 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.

CBRE GROUP, INC.

Amended and Restated Policy Regarding Recoupment of Certain Executive Compensation

(As Adopted on November 15, 2023)

1. Overview. The Compensation Committee (the "***Committee***") of the Board of Directors (the "***Board***") of CBRE Group, Inc. (the "***Company***") has adopted this Amended and Restated Policy Regarding Recoupment of Certain Executive Compensation (the "***Policy***") which requires the recoupment of certain incentive-based compensation in accordance with the terms herein and is intended to comply with Section 303A.14 of The New York Stock Exchange Listed Company Manual, as such section may be amended from time to time (the "***Listing Rules***"). This Policy shall supersede and replace the Policy Regarding Recoupment of Certain Executive Compensation, as originally adopted February 21, 2014 and amended and restated effective as of August 14, 2014, for Incentive Compensation Received on or after October 2, 2023. Capitalized terms not otherwise defined herein shall have the meanings assigned to such terms under Section 12 of this Policy.

2. Interpretation and Administration. The Committee shall have full authority to interpret and enforce the Policy; provided, however, that the Policy shall be interpreted in a manner consistent with its intent to meet the requirements of the Listing Rules. As further set forth in Section 10 below, this Policy is intended to supplement any other clawback policies and procedures that the Company may have in place from time to time pursuant to other applicable law, plans, policies or agreements.

3. Covered Executives. The Policy applies to each current and former Executive Officer of the Company who serves or served as an Executive Officer at any time during a performance period in respect of which Incentive Compensation is Received, to the extent that any portion of such Incentive Compensation is (a) Received by the Executive Officer during the last three completed Fiscal Years or any applicable Transition Period preceding the date that the Company is required to prepare a Restatement (regardless of whether any such Restatement is actually filed) and (b) determined to have included Erroneously Awarded Compensation. For purposes of determining the relevant recovery period referenced in the preceding clause (a), the date that the Company is required to prepare a Restatement under the Policy is the earlier to occur of (i) the date that the Board, a committee of the Board, or the officer or officers of the Company authorized to take such action if Board action is not required, concludes, or reasonably should have concluded, that the Company is required to prepare a Restatement or (ii) the date a court, regulator, or other legally authorized body directs the Company to prepare a Restatement. Executive Officers subject to this Policy pursuant to this Section 3 are referred to herein as "***Covered Executives***."

4. Recovery of Erroneously Awarded Compensation. If any Erroneously Awarded Compensation is Received by a Covered Executive, the Company shall reasonably promptly take steps to recover such Erroneously Awarded Compensation in a manner described under Section 5 of this Policy.

5. Forms of Recovery. The Committee shall determine, in its sole discretion and in a manner that effectuates the purpose of the Listing Rules, one or more methods for recovering any Erroneously Awarded Compensation hereunder in accordance with Section 4 above, which may include, without limitation: (a) requiring cash reimbursement; (b) seeking recovery or forfeiture of any gain realized on the vesting, exercise, settlement, sale, transfer or other disposition of any equity-based awards; (c) offsetting the amount to be recouped from any compensation otherwise owed by the Company to the Covered Executive; (d) cancelling outstanding vested or unvested equity awards; or (e) taking any other remedial and recovery

action permitted by law, as determined by the Committee. To the extent the Covered Executive refuses to pay to the Company an amount equal to the Erroneously Awarded Compensation, the Company shall have the right to sue for repayment and/or enforce the Covered Executive's obligation to make payment through the reduction or cancellation of outstanding and future compensation. Any reduction, cancellation or forfeiture of compensation shall be done in compliance with Section 409A of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder.

6. No Indemnification. The Company shall not indemnify any Covered Executive against the loss of any Erroneously Awarded Compensation for which the Committee has determined to seek recoupment pursuant to this Policy.

7. Exceptions to the Recovery Requirement. Notwithstanding anything in this Policy to the contrary, Erroneously Awarded Compensation need not be recovered pursuant to this Policy if the Committee determines that recovery would be impracticable as a result of any of the following:

(a) the direct expense paid to a third party to assist in enforcing the Policy would exceed the amount to be recovered; provided that, before concluding that it would be impracticable to recover any amount of Erroneously Awarded Compensation based on expense of enforcement, the Company must make a reasonable attempt to recover such Erroneously Awarded Compensation, document such reasonable attempt(s) to recover, and provide that documentation to the Exchange; or

(b) recovery would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the Company, to fail to meet the requirements of 26 U.S.C. 401(a)(13) or 26 U.S.C. 411(a) and the regulations thereunder.

8. Committee Determination Final. Any determination by the Committee with respect to the Policy shall be final, conclusive and binding on all interested parties.

9. Amendment. The Policy may be amended by the Committee from time to time, to the extent permitted under the Listing Rules.

10. Non-Exclusivity. Nothing in the Policy shall be viewed as limiting the right of the Company or the Committee to pursue additional remedies or recoupment under or as required by any similar policy adopted by the Company or under the Company's compensation plans, award agreements, employment agreements or similar agreements or the applicable provisions of any law, rule or regulation which may require or permit recoupment to a greater degree or with respect to additional compensation as compared to this Policy (but without duplication as to any recoupment already made with respect to Erroneously Awarded Compensation pursuant to this Policy). This Policy shall be interpreted in all respects to comply with the Listing Rules.

11. Successors. The Policy shall be binding and enforceable against all Covered Executives and their beneficiaries, heirs, executors, administrators or other legal representatives.

12. Defined Terms.

"***Covered Executives***" shall have the meaning set forth in Section 3 of this Policy.

"***Erroneously Awarded Compensation***" shall mean the amount of Incentive Compensation actually Received that exceeds the amount of Incentive Compensation that otherwise would have been Received had it been determined based on the restated amounts, and computed without regard to any taxes paid. For Incentive Compensation based on stock price or total shareholder return, where the amount of erroneously awarded Incentive Compensation is not subject to mathematical recalculation directly from the information in a Restatement:

(i) The calculation of Erroneously Awarded Compensation shall be based on a reasonable estimate of the effect of the Restatement on the stock price or total shareholder return upon which the Incentive Compensation was Received; and

(ii) The Company shall maintain documentation of the determination of that reasonable estimate and provide such documentation to the Exchange.

"***Exchange***" shall mean The New York Stock Exchange.

"***Executive Officer***" shall mean the Company's president, principal financial officer, principal accounting officer (or if there is no such accounting officer, the controller), any vice-president of the Company in charge of a principal business unit, division, or function (such as sales, administration, or finance), any other officer who performs a policy-making function, or any other person who performs similar policy-making functions for the Company. Executive officers of the Company's parent(s) or subsidiaries shall be deemed executive officers of the Company if they perform such policy-making functions for the Company.

"***Financial Reporting Measures***" shall mean measures that are determined and presented in accordance with the accounting principles used in preparing the Company's financial statements, and any measures that are derived wholly or in part from such measures, including, without limitation, stock price and total shareholder return (in each case, regardless of whether such measures are presented within the Company's financial statements or included in a filing with the Securities and Exchange Commission).

"***Fiscal Year***" shall mean the Company's fiscal year; provided that a Transition Period between the last day of the Company's previous fiscal year end and the first day of its new fiscal year that comprises a period of nine to 12 months will be deemed a completed fiscal year.

"***Incentive Compensation***" shall mean any compensation (whether cash or equity-based) that is granted, earned, or vested based wholly or in part upon the attainment of a Financial Reporting Measure, and may include, but shall not be limited to, performance bonuses and long-term incentive awards such as stock options, stock appreciation rights, restricted stock, restricted stock units, performance share units or other equity-based awards. For the avoidance of doubt, Incentive Compensation does not include awards that vest exclusively upon completion of a specified employment period, without any performance condition, and bonus awards that are discretionary or based on subjective goals or goals unrelated to Financial Reporting Measures. Notwithstanding the foregoing, compensation amounts shall not be considered "Incentive Compensation" for purposes of the Policy unless such compensation is Received (1) while the Company has a class of securities listed on a national securities exchange or a national securities association and (2) on or after October 2, 2023.

"***Listing Rules***" shall have the meaning set forth in Section 1 of this Policy.

Incentive Compensation shall be deemed "***Received***" in the Company's fiscal period during which the Financial Reporting Measure specified in the Incentive Compensation award is attained, even if the payment or grant of the Incentive Compensation occurs after the end of that period.

"***Restatement***" shall mean an accounting restatement due to the material noncompliance of the Company with any financial reporting requirement under the securities laws, including any required accounting restatement to correct an error in previously issued financial statements that is material to the Company's previously issued financial statements, or that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period.

"***Transition Period***" shall mean any transition period that results from a change in the Company's Fiscal Year within or immediately following the three completed Fiscal Years immediately preceding the Company's requirement to prepare a Restatement.

Acknowledgment of Amended and Restated Policy
Regarding Recoupment of Certain Executive Compensation

Reference is made to the CBRE Group, Inc. Amended and Restated Policy Regarding Recoupment of Certain Executive Compensation (as adopted on November 15, 2023 pursuant to NYSE Rule 303A.14) (the "***Policy***"). Capitalized terms used herein without definition have the meanings assigned to such terms under the Policy.

By signing below, the undersigned acknowledges, confirms and agrees that:

- the undersigned has received and reviewed a copy of the Policy;
- the undersigned is, and will continue to be, subject to the Policy to the extent provided therein;
- the Policy may apply both during and after termination of the undersigned's employment with the Company and its affiliates;
- the undersigned shall not be entitled to indemnification against the loss of any Erroneously Awarded Compensation for which the Committee has determined to seek recoupment pursuant to the Policy; and
- the undersigned agrees to abide by the terms of the Policy, including, without limitation, by returning any Erroneously Awarded Compensation to the Company pursuant to the Policy.

_____
Signature

_____
Print Name

_____
Date