Capital Trends

US Big Picture

Q1 2022 **17.4% YOY price change** **$170.8b Transaction volume** **56% YOY volume change**

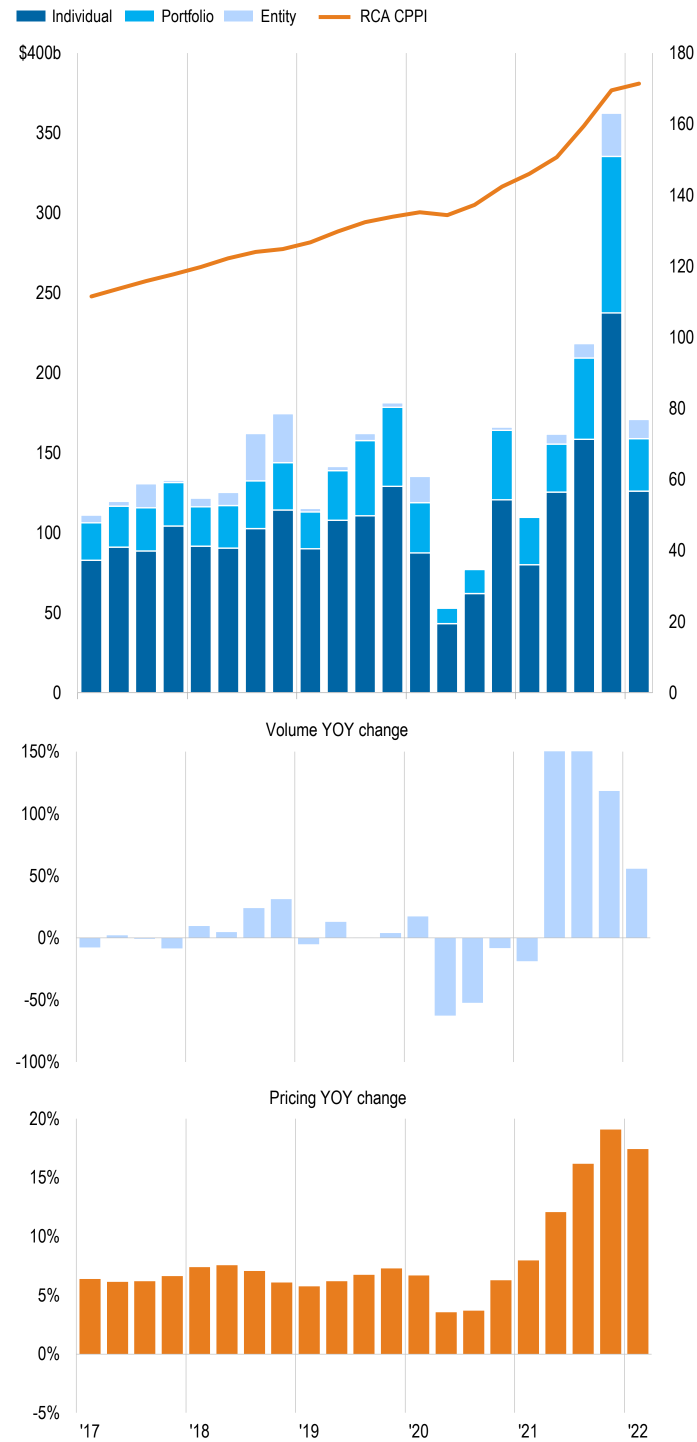
Commercial property sales climbed at double-digit rates from a year ago in Q1’22 despite the uncertainty around war, interest rates and inflation. Closing a commercial property transaction is a process measured in months and weeks however, so the activity through the end of March likely reflects sentiment from the start of the year. The fallout from recent uncertainty, if any, would likely be seen in coming months.

While deal activity climbed, one warning sign came in the form of a deceleration of price growth. The RCA CPPI All-Property Index climbed 17.4% from a year earlier in Q1’22, down from the 19.1% pace set in Q4’21. Granted, in any normal period a 17.4% YOY pace of growth would be wildly optimistic news. The annualized pace of change in prices between Q4’21 and Q1’22, however, suggests a slowdown from a 28% annual pace in Q4’21 to only 5% in Q1’22.

It is not clear though that this deceleration of price growth is a function of the uncertainty that erupted in Q1’22, and may simply be a case of a return to trend. Double- and triple-digit rates of growth for deal volume and prices are not normal. The markets were experiencing such a pace of growth in 2021 in part because of the rebound from the fear-driven lows of 2020. Once that removal of fear had been priced in fully, it would be reasonable to see the price growth slow, independent of interest rate shocks.

In Q1’22 individual asset sales grew at a 58% YOY pace, a slightly stronger pace than the market overall. Portfolio and entity-level activity rose because of M&A-type transactions. Entity-level transactions totaled $11.8b in Q1’22 versus none a year earlier. In the coming quarters entity-level deals should surge, with more than $30b in such deals announced. Before the pandemic, the pipeline of announced entity-level deals would average $6.5b by this point in the year.

Quarterly Transaction Volume & Pricing



Volume YOY change truncated to 150%

Transaction Volume Summary

	Mar '22		Q1 '22	
	Vol ($b)	YOY	Vol ($b)	YOY
Office	16.5	32%	35.1	59%
Retail	7.5	70%	18.6	102%
Industrial	13.2	53%	33.9	50%
Hotel	4.4	12%	11.0	71%
Apartment	25.4	64%	63.0	56%
Seniors Housing & Care	0.7	-27%	2.1	-48%
Dev Site	3.3	50%	7.2	37%
Total	71.0	47%	170.8	56%
Portfolio	20.6	39%	44.7	50%
Single Asset	50.3	51%	126.1	58%

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Recent Trends

The apartment sector remained as the largest, most liquid portion of the U.S. commercial real estate investment market in Q1'22. There was movement in the #2 position, however, with the office sector claiming this spot back from the industrial sector. Office sales were $1.2b higher than industrial sales for the quarter and $3.4b higher in March alone. The office sector did get a boost in activity from portfolio and entity-level sales, but even in the sale of individual assets offices outperformed.

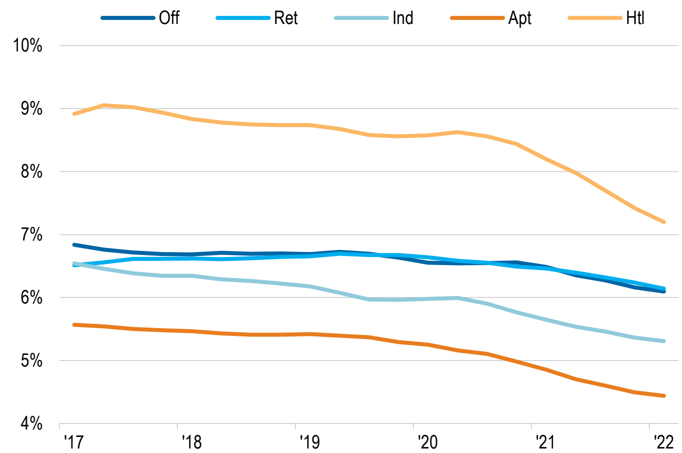
Part of the issue at play is that pricing is at record tight levels for the industrial sector. Cap rates for the sector overall fell to 5.3% in Q1'22 and to 5.1% for warehouses. Cap rates for CBD offices, by contrast, stood at 5.6% for the quarter, a level close to the average over the last year. With these low cap rates for industrial buildings, and warehouse properties in particular, investors would need to underwrite ever stronger income growth assumptions at purchase to drive higher levels of deal activity.

Cap rates fell from a year ago for every major property sector but were unchanged for CBD offices, as noted, and up slightly for seniors housing & care. The seniors housing & care sector was the only one to post lower deal volume in Q1'22 vs. a year ago.

The deceleration of price growth into Q1'22 is most notable for the retail sector and for activity in the Non-Major Metros. The one-year change in the RCA CPPI for properties in the Non-Major Metros was an 18.8% YOY increase. The annualized change from Q4'21 stands at 5.9%, however, suggesting that most of the momentum in price growth for these smaller markets was seen earlier in 2021.

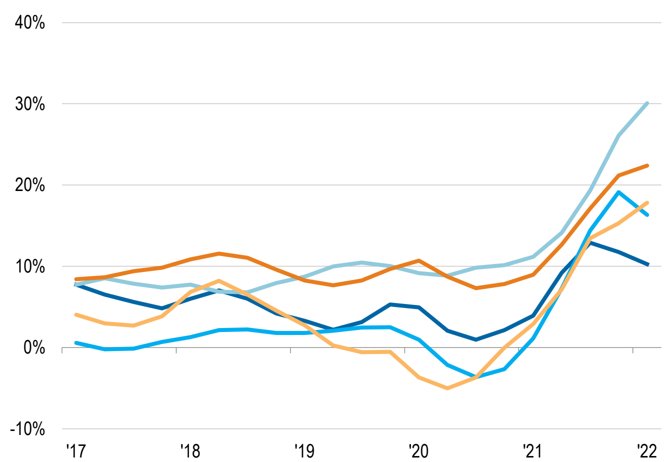
Likewise for retail, the difference between these measures stood at 1460 bps with annualized price growth of only 1.7% relative to Q4'21. The retail sector posted strong price growth early in 2021 as fear was removed from asset pricing and growth is now slowing as price levels return to normal.

Cap Rates



RCA Hedonic Series

Year-Over-Year Price Change



RCA CPPI

Q1'22 Deal Volume and Pricing Summary

	Quarterly Volume				RCA CPPI		Hedonic Cap Rate	
	$b	YOY Chg	#Props	YOY Chg	1-qtr Chg	1-yr Chg	Cap Rate	YOY Chg (bps)
All Types	170.8	56%	7,873	4%	1.1%	17.4%		
6 Major Metro All Types	50.3	47%	1,954	-3%	1.6%	12.7%		
Non-Major Metro All Types	120.6	59%	5,919	7%	1.4%	18.8%		
Office	35.1	59%	1,106	5%	0.8%	10.3%	6.1%	-40
Industrial	33.9	50%	1,798	-8%	6.5%	30.1%	5.3%	-30
Retail	18.6	102%	1,445	13%	0.4%	16.3%	6.1%	-30
Apartment	63.0	56%	2,170	13%	4.2%	22.4%	4.4%	-40
Hotel	11.0	71%	721	47%	2.6%	17.8%	7.2%	-100
Seniors Housing & Care	2.1	-48%	127	-54%			6.5%	10
Dev Site	7.2	37%	506	-10%				

RCA CPPI All Types includes office, industrial, retail and apartment

The Challenge on Rates

Inflation poses a challenge for the financing of commercial real estate. As inflationary pressure pushes up interest rates, the cost to finance commercial real estate investments can increase as well. Commercial mortgages originated in 2021 had an average 3.7% coupon rate for 7/10-year fixed rate products. Into February of 2022, this rate had climbed to 3.9%, an extra 20 bps. Increases in other rate instruments could foretell further commercial rate increases if traditional relationships hold moving forward.

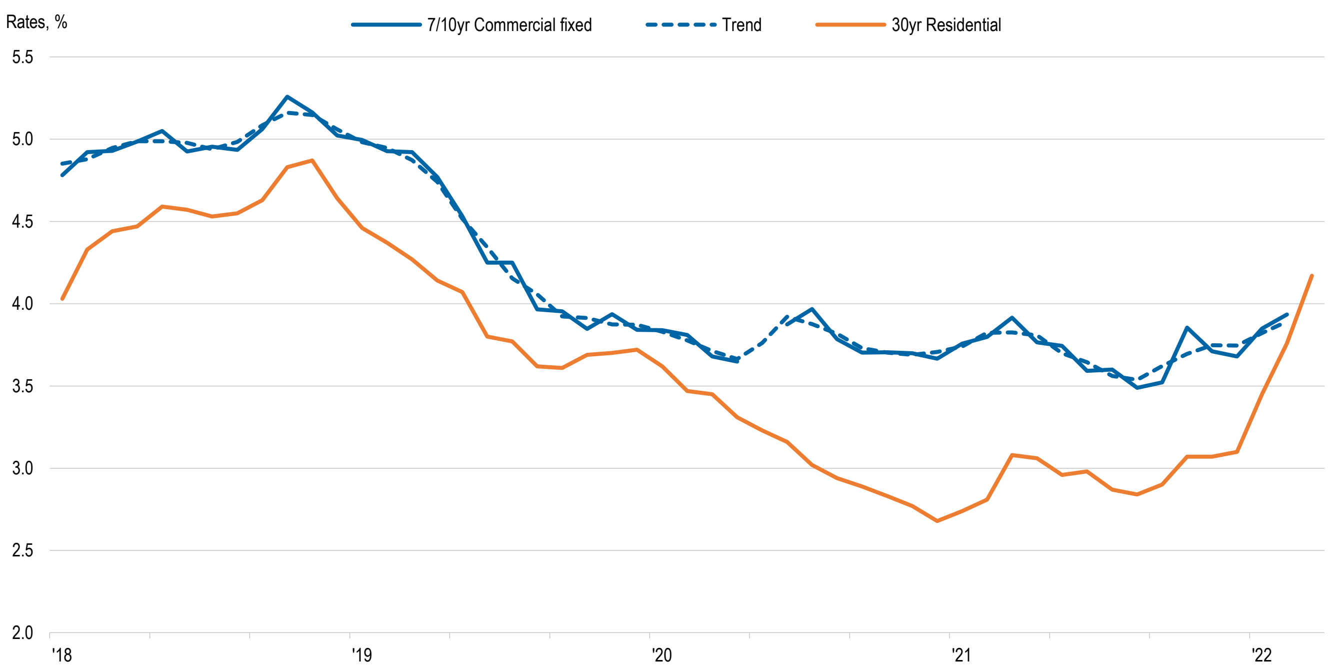
The residential mortgage market is deeper and more liquid than that for commercial mortgages and this market is showing stress from inflationary trends. The 30-year fixed rate residential average from Freddie Mac climbed to 4.2% in March, up from an average of 3.0% in 2021. The Freddie survey average fell much more than the commercial rates during the worst parts of the pandemic so it is not clear that commercial mortgage rates will jump up to the same extent in the months ahead.

This said, over the years commercial mortgage rates have averaged 55 bps higher than this residential mortgage rate. If this relationship simply returned to normal trends, the 4.2% read for March would imply commercial mortgage rates jumping up to 4.7% or 4.8%. Again, not enough data is available yet to make that call, but conversations with industry professionals in late March and early April suggest that commercial debt costs are going up, particularly for the riskiest product.

If mortgage rates go up because of inflation, property values would face challenges. Suppose one bought a logistics asset at a 4% cap rate with short term debt in 2021 at a 3.7% coupon rate. That 30 bps of spread between the cap rate and the mortgage rate does leave some room for free cash flow outside of debt service. Into 2023 as such a short-term loan reaches maturity, what happens when that 3.7% coupon rate is pushed up to 4.7%? What if it goes higher, to 5% as was seen at the end of 2018?

If property income did not grow enough in the interim to compensate for the higher debt service faced as loans mature, someone will take a loss. Yes, many investors have been underwriting strong income growth assumptions thinking that either the rebounding economic environment will continue to grow rapidly or that inflationary pressure itself will push up income. The relative aggressiveness and dependence on those income growth assumptions will be a key point to survival if and when mortgage costs increase.

Mortgage Rates



7/10yr commercial fixed rate mortgage: data at April 20, 2022, source Real Capital Analytics, pure monthly observation series; Trend is 3-month centered average
30yr fixed rate mortgage average: data at April 14, 2022, source Freddie Mac, retrieved from Federal Reserve Bank of St. Louis [MORTGAGE30US]

Alternative Sectors Overview

The first quarter of 2022 stands as the strongest first quarter in RCA records for alternative real estate sector investment. At $21.3b, the quarter's investment level was 25% above that for the same period in the prior year, and 87% above the average between 2017 and 2019. Structural shifts and changing consumer preferences have continued to make the case for investment in specialized asset classes.

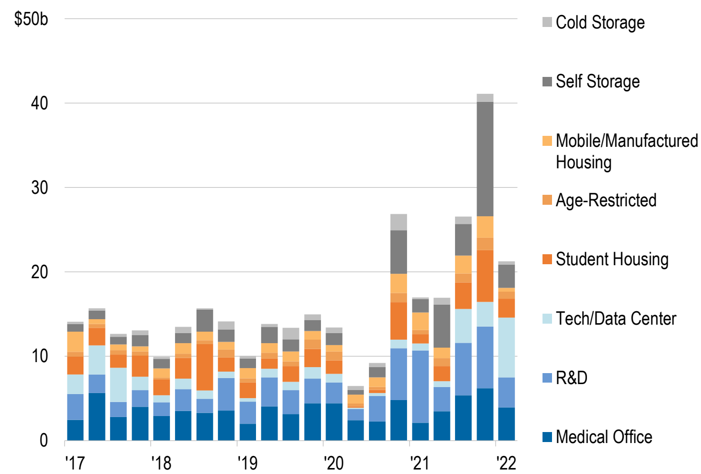
Investment in tech/data center assets totaled $7.1b in Q1'22, one-third of all alternative investment. Since the onset of the pandemic, what was already strong data center demand has been propelled further.

As pandemic fears have waned, student housing investment has regained momentum. In Q2'20 during the worst of the crisis, investment in the sector totaled $153m. In the first quarter of this year volume reached $2.2b and there's more in the pipeline. Blackstone just announced its $12.8b agreement to acquire American Campus Communities.

For self storage investment, Q1'22 was a record-breaking first quarter. Volume for the sector totaled $2.7b, nearly 160% higher than the average for a first quarter period in the three years prior to the pandemic. Unlike tech/data center assets where megadeals were the sole driver of record volume, single asset transactions accounted for nearly two-thirds of all deal activity.

Demand for self storage product has pushed cap rates to a historic low of 5.4% as capital has poured into the sector. Compared with other asset classes, self storage investment requires relatively low capital expenditures, which is especially attractive in an inflationary environment, and the short-term structure of lease agreements allows for owners to rapidly reprice as market conditions change.

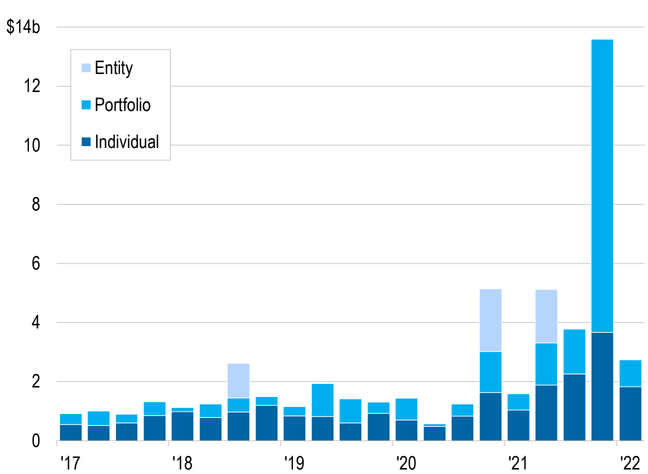
Quarterly Deal Volume

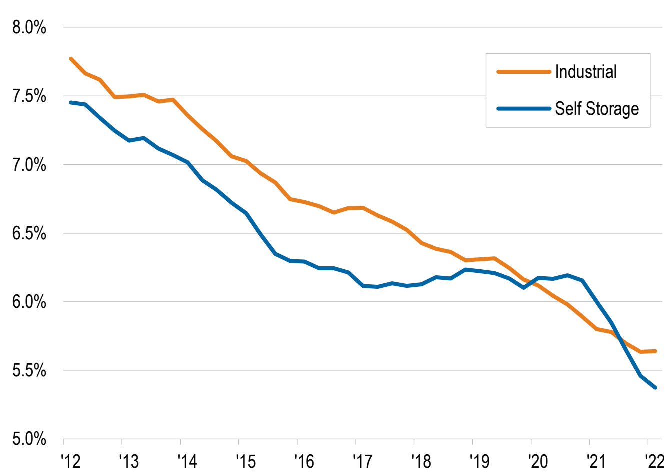


First Quarter Deal Volume Summary

	Volume ($b)		
	Q1 Avg '17-'19	Q1'21	Q1'22
Medical Office	2.4	2.1	3.9
Mobile/Manufactured Hsg	1.6	2.1	0.5
R&D/Life Sciences	2.4	8.6	3.6
Self Storage	1.1	1.6	2.7
Student Housing	1.9	1.1	2.2
Age-Restricted	0.4	0.5	0.9
Cold Storage	0.3	0.2	0.4
Tech/Telecom/Data Cntr	1.2	0.8	7.1

Self Storage Deal Volume and Cap Rates





12-mth trailing cap rates

Sector Momentum

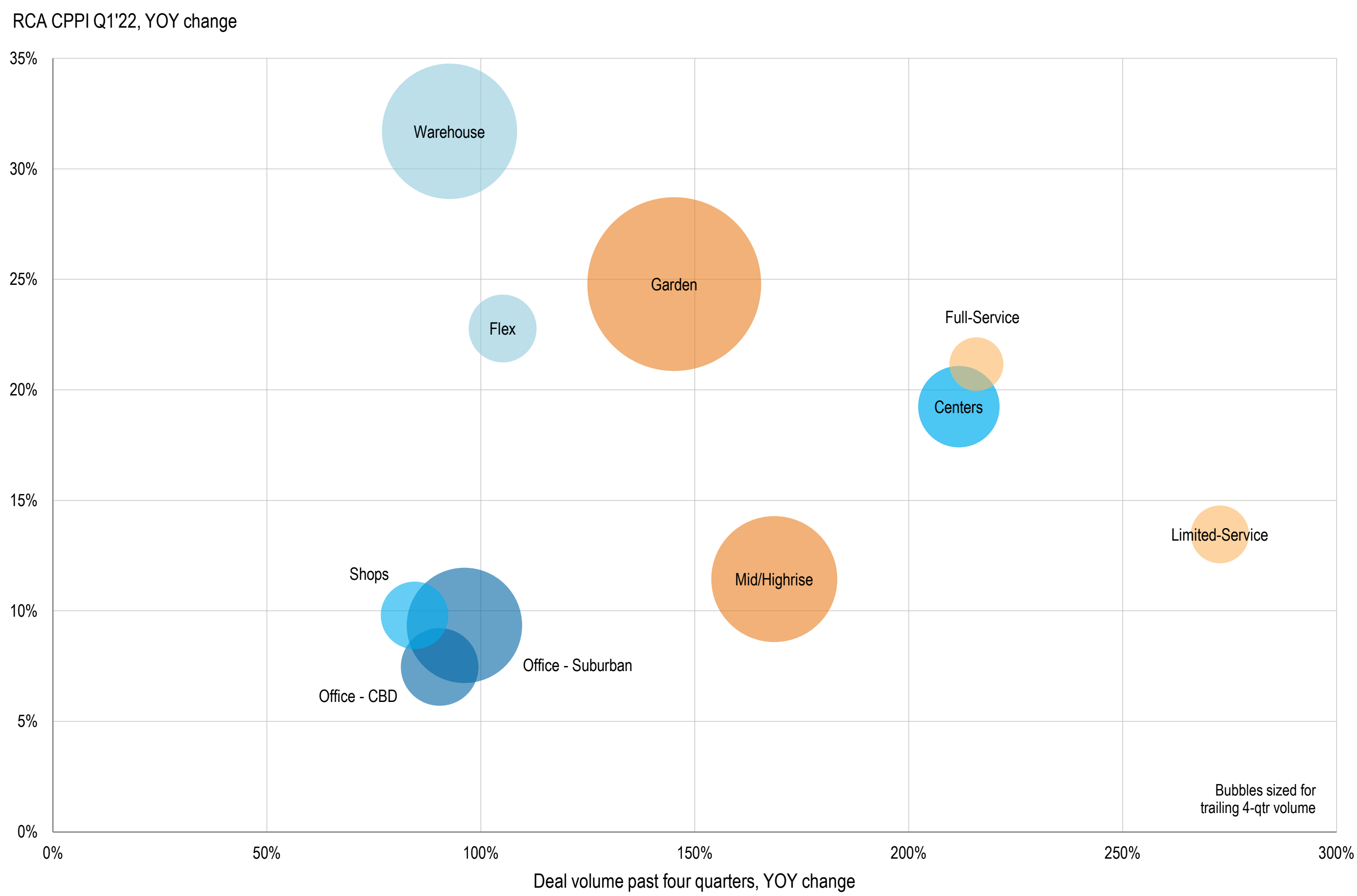
Growth in commercial property prices decelerated in Q1'22, with the RCA CPPI All-Property Index up 17.4% from a year prior. This pace of growth would be fantastic in any normal period, but it is no longer climbing at the average 300 bps of additional growth each quarter seen since Q4'20. Some element of this deceleration in price growth is a function of the easing of fear that dominated with Covid-19. It is not clear how much of the deceleration is due to the economic challenges arising in March of this year.

In any normal period, one would expect a tight relationship between the growth in deal volume and property prices, but conditions over the last 12 months fly in the face of normality. The warehouse segment of the industrial sector has posted the strongest growth in property prices across any segment of the market, rising 31.7% from a year earlier in Q1'22. Deal activity was up only 93% over the 12 months to the end of Q1'22 versus the previous 12 months.

Again, in any normal period, a growth rate nearing 100% would be fantastic and would warrant a stronger pace of price growth as investors clamored for assets. However, the market is still not in a normal period as the aftereffects of Covid-19 ripple through deal activity. Other sectors posted triple-digit growth rates in deal activity over the previous 12 months with less aggressive price growth.

There is an inverse relationship in the apartment sector subtypes in respect to what one would normally expect with deal volume driving price growth. Sale activity was up at triple-digit growth rates for both garden and mid/highrise assets, but mid/highrise deals gained more, at a 170% increase versus the previous 12 months. Prices rose more for the garden segment though, with the RCA CPPI for garden apartments up 24.8% from a year earlier. Part of the disparity is the fact that fewer mid/highrise assets sold in the previous 12 months.

Q1'22 Investment Momentum



Top Brokers *Q1 2022*

By Region

Mid-Atlantic
JLL
CBRE
Eastdil Secured
Cushman & Wakefield
Newmark

Midwest
Eastdil Secured
CBRE
Cushman & Wakefield
JLL
Newmark

Northeast
CBRE
Cushman & Wakefield
Newmark
JLL
Eastdil Secured

Southeast
CBRE
Cushman & Wakefield
Newmark
Marcus & Millichap
Berkadia

Southwest
CBRE
JLL
Newmark
Marcus & Millichap
Cushman & Wakefield

West
CBRE
Newmark
Eastdil Secured
Marcus & Millichap
JLL

By Property Type

Office
CBRE
Eastdil Secured
Cushman & Wakefield
Newmark
JLL

Industrial
CBRE
Eastdil Secured
Cushman & Wakefield
JLL
Newmark

Retail
CBRE
JLL
Marcus & Millichap
Eastdil Secured
Cushman & Wakefield

Apartment
Newmark
CBRE
Marcus & Millichap
Cushman & Wakefield
JLL

Hotel
CBRE
Hodges Ward Elliott
Marcus & Millichap
Eastdil Secured
Hunter

Dev Sites
JLL
Cushman & Wakefield
Colliers International
CBRE
SVN®

Other

Over $25m
CBRE
Newmark
Cushman & Wakefield
Eastdil Secured
JLL

Under $25m
Marcus & Millichap
CBRE
Colliers International
Cushman & Wakefield
Newmark

Portfolio Sales
Eastdil Secured
CBRE
JLL
Cushman & Wakefield
Newmark

Single Asset Sales
CBRE
Newmark
Cushman & Wakefield
JLL
Marcus & Millichap

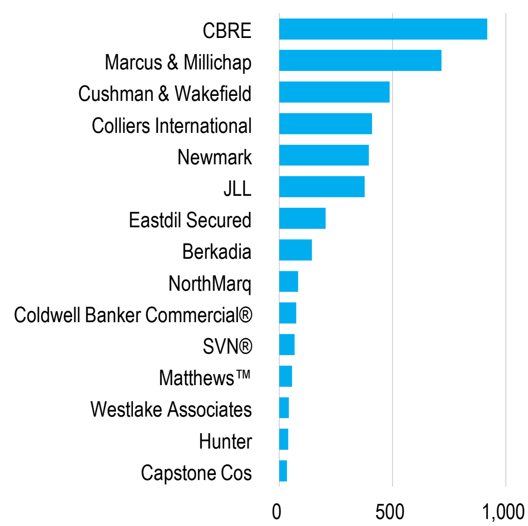
Buyer's Rep
Marcus & Millichap
CBRE
Newmark
Cushman & Wakefield
JLL

Cross-Border
Newmark
CBRE
Cushman & Wakefield
JLL
Marcus & Millichap

All ranked by investment volume

By Investment Volume

By Number of Properties



Methodology: Full credit assigned to each broker when multiple brokers involved. For partial-interest, volume is based on the pro-rated share of the total property or portfolio value. Based on sell-side representation. The transaction volume of brokerage firms that have merged are left unconsolidated before the merger date and are attributed to the surviving or newly formed company after the merger date. For more information on rankings please visit the RCA website.

Top Deals *Q1 2022*

Property Sales

	Property	Location	Size		Type	Volume($m)^Δ	$/unit	Buyer	Seller
1	Google Hudson Sq (Condo)	New York, NY	631,721	sq ft	OFF	1,972.9	3,123	Alphabet Inc	OMERS JV CPP Investment Board
2	One Manhattan West	New York, NY	2,081,035	sq ft	OFF	1,396.5 *	1,370	Blackstone	Brookfield AM JV QIA
3	American Copper	New York, NY	761	units	APT	837.0	1,099,869	Black Spruce Props JV Orbach Group	JDS Development JV Baupost Group
4	Lakefront Blocks (Condo)	Seattle, WA	656,009	sq ft	OFF	819.0	1,248	DekaBank	Vulcan Inc
5	Trammell Crow Center	Dallas, TX	1,128,331	sq ft	OFF	615.0	545	Regent Properties	JP Morgan JV State Street
6	Palo Alto Research & Tech	Palo Alto, CA	292,000	sq ft	OFF	446.0	1,527	Alexandria	Morgan Stanley
7	ParkLine Miami	Miami, FL	816	units	APT	435.0	533,088	Harbor Group Int'l JV AB Asset Mgmt	Fortress
8	Amazon	Christiana, DE	3,883,950	sq ft	IND	392.0	101	Macquarie Group	Dermody Properties JV IGIS
9	Second & Seneca	Seattle, WA	509,252	sq ft	OFF	382.0	750	Northwood Investors	Rockwood Capital
10	Bank of America Plaza	Atlanta, GA	1,287,997	sq ft	OFF	380.0	295	CP Group JV HPS Investment Ptnrs	Shorenstein
11	W Hotel	Nashville, TN	346	units	HTL	328.7	950,000	Xenia	Magellan Dev Group JV Corner Partnership
12	Amazon Fulfillment Center	Bondurant, IA	2,680,000	sq ft	IND	325.3	121	Capital Square 1031	Mesirow Financial JV Hillwood
13	Skylark	Larkspur, CA	455	units	APT	300.0	659,341	Prime Group	Pell Development
14	Barclays Capital	Jersey City, NJ	409,272	sq ft	OFF	300.0	733	Vision Property (NJ) JV Hana Financial	Spear Street Capital JV PFA - Mere til Dig
15	Modells Warehouse	Bronx, NY	366,000	sq ft	IND	-	-	Confidential	Realterm Global
16	West Edge Apartments	Seattle, WA	340	units	APT	292.8	861,265	PGIM Real Estate	Mitsui Fudosan JV Urban Visions
17	1800 Larimer	Denver, CO	495,518	sq ft	OFF	291.0	587	Beacon Capital Partners	Invesco Real Estate
18	Sanofi Office Complex	Green Knoll, NJ	736,572	sq ft	OFF	260.7	354	AVG Partners	The Necessity Retail REIT
19	Commonwealth Tower	Arlington, VA	343,000	sq ft	OFF	245.0	714	DivcoWest	Tishman Speyer JV Lehman Bros Holdings
20	Sheraton Boston	Boston, MA	1,216	units	HTL	233.0	191,612	Varde Ptnrs JV Hawkins Way Capital	Host Hotels & Resorts
21	Bayside Towers	Foster City, CA	277,761	sq ft	OFF	227.0	817	Blackstone	Tishman Speyer
22	COPT DC-6	Manassas, VA	233,000	sq ft	IND	222.5	955	CloudHQ	COPT
23	DTW3 & DTW9 Amazon FC	Romulus, MI	1,267,500	sq ft	IND	219.3	173	Stockbridge Real Estate	Hillwood JV Ryan Companies
24	Waterfront Corporate Center I	Hoboken, NJ	566,215	sq ft	OFF	210.0	371	SJP Properties JV David Werner RE	Veris Residential
25	Yorba Linda Apartments	Yorba Linda, CA	400	units	APT	205.5	513,750	Interstate Equities Corp	Resource REIT

Portfolio and Entity Sales

	Buyer	Seller	Location	# Props	Type	Volume($m)^Δ
1	KKR JV Global Infrastructure Partners	CyrusOne	Worldwide	33	DEV, IND, OFF	-
2	ILPT REIT	Monmouth REIT	Multiple, USA	125	IND	-
3	Carlyle Group	iStar Inc	North America	30	IND, OFF, RET	-
4	Highgate Holdings JV Cerberus	CorePoint Lodging	Multiple, USA	159	HTL	-
5	Blackstone JV Starwood Capital	Brookfield AM	Multiple, USA	111	HTL	1,455.0
6	Extell	Silverstein Properties JV Seven Valleys LLC	New York, NY	3	OFF	931.0
7	Equus Capital Partners	Prologis	Multiple, USA	75	IND	882.5
8	Summit Hotel Properties JV GIC	NewcrestImage	Multiple, USA	26	HTL	766.0
9	The Necessity Retail REIT	CCO Capital LLC (CIM)	Multiple, USA	37	RET	-
10	GV&A RE Investments	Ares Management JV Cottonwood Residential	Multiple, USA	12	APT	702.7

Δ When prices are not known, estimated prices are used in the ranking but are not shown. Volume is adjusted pro-rata for partial interests although $/unit reflects 100% valuation.

* Partial interest ** Forward sale

The number of buyers or sellers shown on a deal is truncated to two. For full deal and player information go to the RCA website.

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Methodology

Data based on properties and portfolios $2.5m and greater unless otherwise stated. Data as of April 20, 2022 unless otherwise stated.

About Capital Trends

Capital Trends reports analyze and interpret trends in the global real estate market using RCA's comprehensive data. US Capital Trends is a monthly edition comprising as overview of the U.S. market and separate reports on the five main property types. Asia Pacific, Australia, Europe and Global Capital Trends are published quarterly.

About Real Capital Analytics

Real Capital Analytics (RCA) is the authority on the deals, the players and the trends that drive the commercial real estate investment markets. Covering all markets globally, RCA delivers timely and reliable data with unique insight into market participants, pricing and capital flows. The most active investors, lenders and advisors depend on RCA's market intelligence to formulate strategy and to source, underwrite and execute deals. An industry pioneer since 2000, RCA has offices in New York, San Jose, London, Singapore and Sydney. RCA is owned by MSCI, a leading provider of critical decision support tools and services for the global investment community. For more information, visit: www.rcanalytics.com

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