

U.S. economy overview

By JLL as of 31 December 2020

- As the economy continues to recover, employment is now just 6.3% below its previous peak and even closer at 3.9% for professional services.
- Containing second wave of COVID-19 and ability to vaccinate at scale will be critical in determining the rate of rebound.
- Additional fiscal stimulus is currently in negotiation, but likely to be decided in the coming weeks.

The effects of COVID-19 have been profound: from February through April, the labor market contracted by 22.2 million jobs, equivalent to 14.5% of pre-pandemic employment but has since rebounded to 6.3% below its previous peak and even closer for office-using sectors such as professional services. Similarly, GDP now stands at 2.4% below its Q4 2019 peak as it benefits from growing spending and investment.

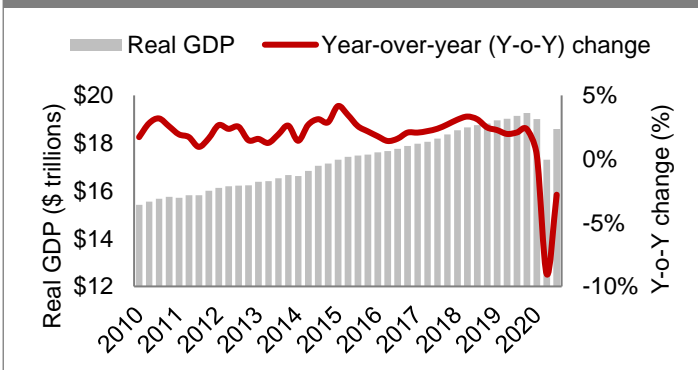
In an effort to combat the economic fallout from the pandemic, Congress passed an unprecedented stimulus in the form of the Coronavirus Aid, Relief and Economic Security (CARES) Act. This included a package valued at roughly \$2.2 trillion comprising direct payments, the Paycheck Protection Program (PPP), industry-specific bailouts and state and local government funding along with enhanced unemployment benefits to supplement state payments. After expiration in December and a political stalemate, a second stimulus of \$900 billion with smaller and more targeted aid as well as an extension of business and unemployment programs passed

as part of the more comprehensive Consolidated Appropriations Act for 2021. In line with the flipping of the Senate and the executive branch, there is an expectation for a third round of stimulus, although what form this will take is not yet clear.

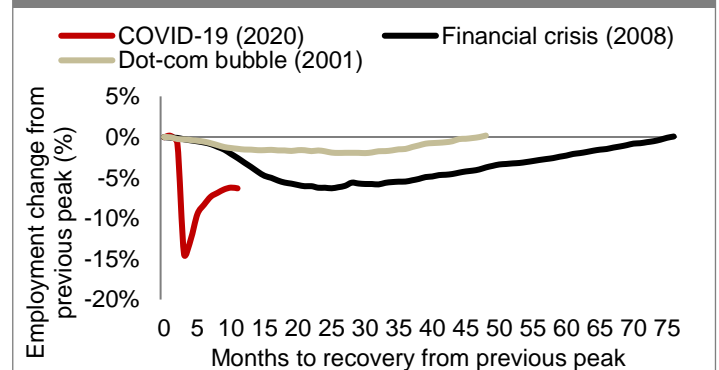
Importantly for the office market, the COVID-19 pandemic is a service-rather than office-driven downturn: office-using employment has held up remarkably well, with the segments of professional services yet to recover mostly within building services and other on-site requirements currently with limited demand due to stay-at-home advisories and requirements. There has been an uptick in permanent layoffs due to the prolonged macroeconomic slowdown, but this is low in comparison to the drop-off in leisure and hospitality employment and activity.

The economic recovery will likely take hold beginning in the latter portion of Q2 and into Q3 2021 once vaccines are widely available outside of front-line workers and those over the age of 65, enabling an opening up of many businesses with less risk of straining health care capacity. In the interim, unemployment will see a short-term increase – already borne out in initial claims – given seasonality and the current surge in cases leading to a reduction in overall activity. Further immediate relief will stabilize economic conditions and improve cash-on-hand for consumers to maintain spending, while longer-term infrastructure and health investments will boost GDP in the coming years.

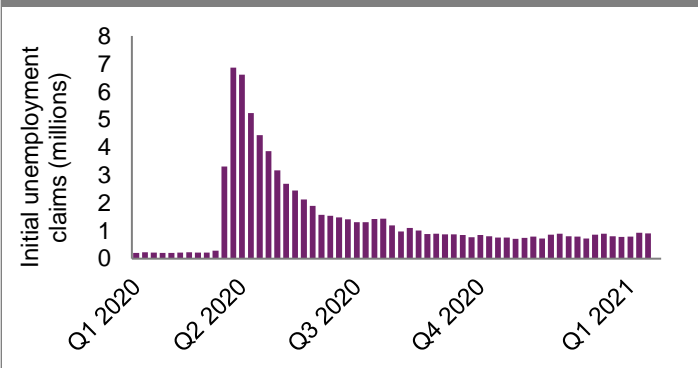
Real GDP nearing pre-COVID-19 levels, down 2.8% Y-o-Y



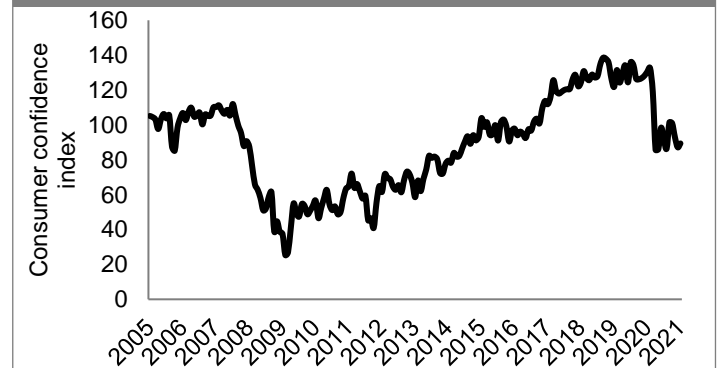
Jobs recovery is trending towards a “W” rather than a “V”



Weekly unemployment plateauing after second spike



Subdued consumer confidence to weigh on spending



U.S. office overview

- Widespread uncertainty over both economic and health conditions impaired office fundamentals in 2020.
- Tenants delayed making long-term leasing decisions given heightened risks, unknown timelines for office re-openings and expanded remote work programs.
- Leasing fell by 47.3% over the year, while 68.7% of Q4 activity being largely short-term renewals brought down average terms to just 6.7 years.
- Give-backs of space amounted to 84 m.s.f. in 2020, pushing vacancy to 17.1%.
- Sublease space is now well past its dot-com peak and has expanded by 50.7% since the onset of COVID-19.

Gross leasing in Q4 was once again heavily subdued compared to historic norms, reaching just 25.2 m.s.f., bringing 2020 volumes to 125.6 m.s.f. Compared to 2019, this represents a 47.3% drop-off in transaction activity as long-term planning remains difficult apart from select highly capitalized users. Pulling down activity in Q4 was a lack of large-scale renewals that helped to buoy Q3 figures along with greater hesitation from the tech sector, which has been a core driver of net expansion over the past decade. In turn, finance represented 20.1% of all leasing in 2020, while tech fell to 17.7%; in previous years, the two were roughly tied. Residual leasing came mostly from government and energy renewals.

Tenants continue to opt for shorter leases to delay decision-making as an interim step: 68.7% of quarterly transactions were renewals, of which 43% were five years or less in duration. As a result, the average deal term dropped even further in Q4 to 6.7 years for leases larger than 20,000 s. f., well below the pre-COVID-19 average of 8.5 years. Lease lengths will increase as the market begins to recover later in 2021 and into 2022.

Mirroring broader macroeconomic and demographic trends, gateway markets saw a 51.5% reduction in year-over-year leasing compared to 42.9% elsewhere on account of higher exposure to remote work-friendly industries such as tech, greater demographic shifts and more restrictive virus containment measures. Activity will moderately pick up

in mid-2021 as vaccination becomes more widespread.

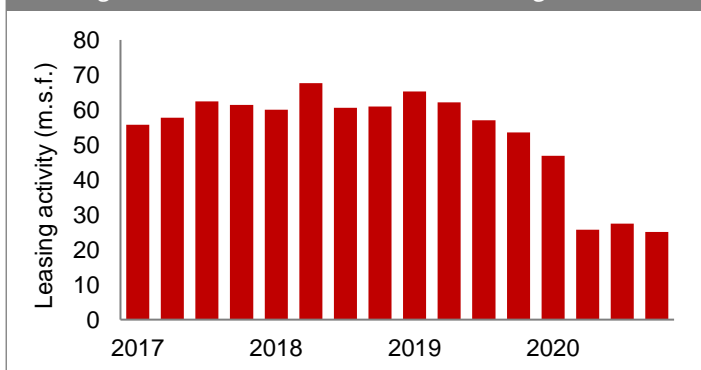
The U.S. office market recorded the first instance of more than 40 m.s.f. of occupancy losses in a given quarter in Q4, with a further 40.6 m.s.f. of negative net absorption bringing 2020 total occupancy declines to an unprecedented 84 m.s.f. This compares to 55 m.s.f. of occupancy losses experienced during the entirety of the financial crisis.

Underlining the structural challenges for denser gateway geographies, 52.1% of negative net absorption occurred in CBDs despite them comprising 38.5% of national inventory. Within CBDs, however, losses have been more acute in commodity product, with Class B properties reporting occupancy decreasing 1.5x faster than in Trophy and Class A buildings. This trend is likely to continue given an even more accelerated flight to quality by tenants with the confluence of more generous concession packages and lease terms along with demands for best-in-class ventilation and building systems for employee health and wellbeing.

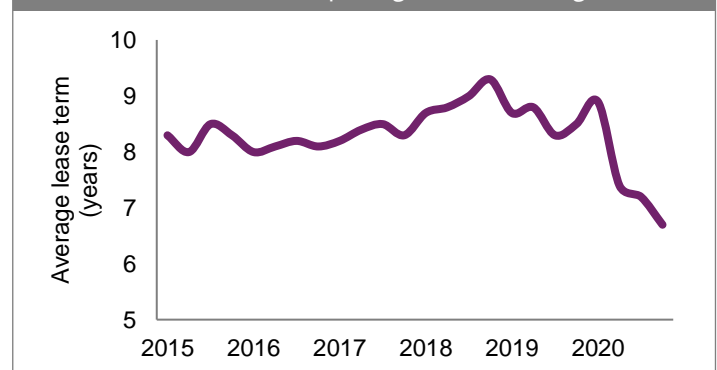
As with leasing, occupancy losses have been most pronounced in gateway geographies. More than one-third of 2020's give-backs took place in New York and the Bay Area alone, approaching 30 m.s.f. in the process, at a rate 2.2x faster than the national office market as a whole. Similarly, negative net absorption was also higher in more expensive and tech and energy-oriented markets such as Seattle (-3.1%), Boston (-3.0%), Denver (-2.9%), New Jersey (-2.5%) and Los Angeles (-2.3%). On the contrary, secondary and tertiary markets were more resilient, benefiting from more diversified tenant bases and expectations for inbound migration: metro areas with less than 60 m.s.f. of total inventory recorded net absorption of -1.3% of inventory, 60 basis points lower than the national average.

This mix of give-backs (both planned pre-pandemic and in response to changing needs in the past nine months) and new supply hitting the market pushed vacancy up 110 basis points to 17.1%, rising twice as fast in CBDs than in the suburbs. Unlike net absorption, however, vacancy rose faster for Class A product on account of completions, which will reverse faster as tenants continue to relocate to higher quality buildings.

Leasing is subdued relative to historical averages



Short-term extensions are pulling down term lengths



U.S. office overview

Office closures, work-from-home initiatives and financial pressures led many tenants to place space on the sublease market. In Q4, an additional 18.4 m.s.f. of sublease space hit the market, bringing the segment to more than 141.5 m.s.f. Over the course of the pandemic, the sublease market has expanded by nearly 47.6 m.s.f., or 50.7%.

Shadow space – sublease product that is available but not yet vacant – now stands at 48.8 m.s.f., which will keep total vacancy on an upward trend through much of 2021 as current users eventually vacate these blocks. Sublease has been a disproportionate contributor to rising vacancy: despite representing 13% of current vacancy, it has been responsible for 29% of space added onto the market since the onset of the pandemic. As a result, sublease as a share of total vacancy is up 38% and set to rise further as much of the current shadow space is realized as vacant in the coming quarters.

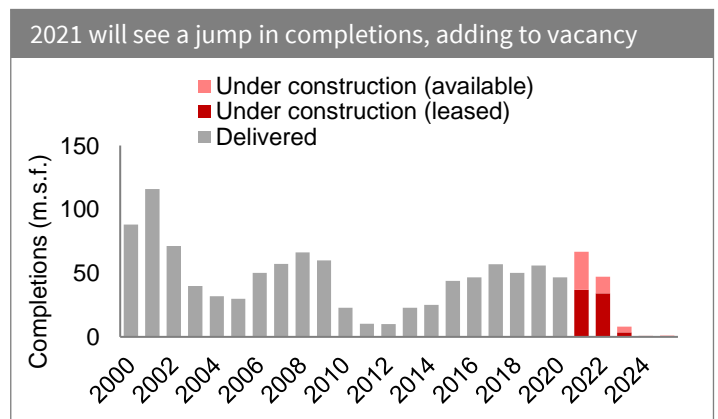
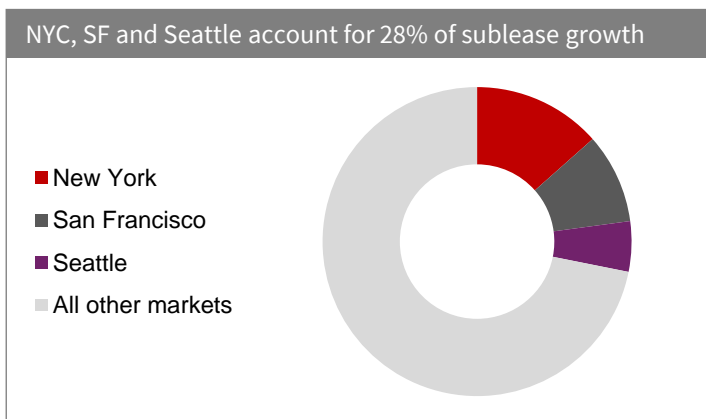
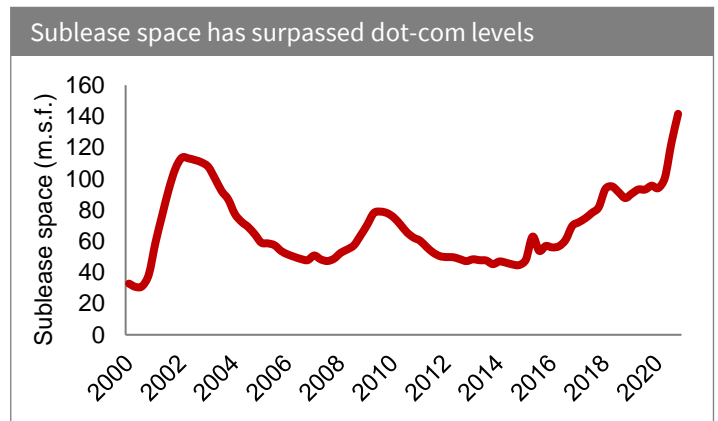
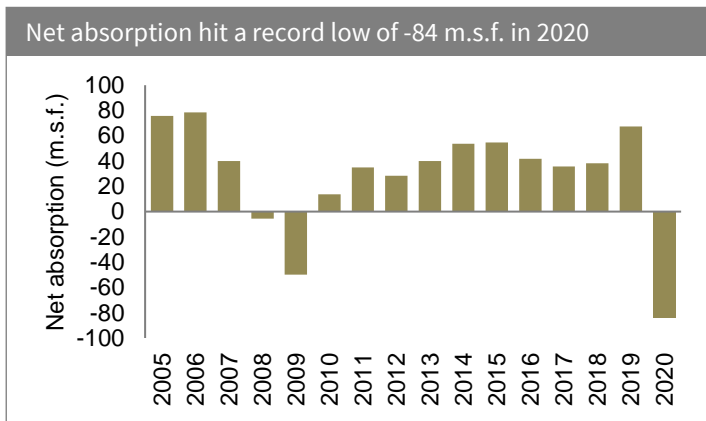
At the market level, sublease vacancy represents the largest share of total vacancy in San Francisco (43.0%), New York (30.5%), Seattle (28.5%), Austin (27.5%), Fairfield County (23.8%), Silicon Valley (20.7%) and the San Francisco Peninsula (20.5%).

Throughout 2020, tech has been by far the largest driver of large (> 50,000 s. f.) sublease blocks, totaling 5.9 m.s.f., some of which include partial or full headquarters listings in the Bay Area and other industry hubs. Other major drivers include finance, insurance, energy

and retail tenants, which have borne the brunt of the current economic downturn.

Annual completions fell in 2020 compared to 2019 by 16.8%, largely a result of COVID-19 induced construction delays, leading to the broader construction pipeline remaining relatively static at 123.9 m.s.f. Oversupply remains a significant risk through 2022, however, despite a longer timeframe for delivery of projects currently underway through 2025. Few large-scale projects delivered in Q4, with only three (167 N Green in Chicago, the TSA HQ in Northern Virginia and 45 L in Washington, D.C.) larger than 500,000 s.f. being occupied during the final three months of the year. Groundbreakings were even more restricted; apart from Visa’s new headquarters beginning construction in San Francisco, all starts were less than 250,000 s.f., almost all of which were majority or fully pre-leased at the time of groundbreaking. Preparatory works for the expansion of 1 Madison in New York also started, underlining the positive longer-term sentiment in gateway markets.

Liquidity once again improved in Q4, bringing sales volumes up by a further \$24.8 billion to \$78.6 billion at year-end. At 42.4%, annual sales volumes for office trailed industrial and multi-family significantly, but remained above retail and hotels. As with leasing, primary markets saw a greater shift in cap rates, rising to 6.2% (+21 basis points), whereas secondary geographies registered a 12-basis-point increase.



Atlanta (Buckhead and Midtown)

- Atlanta has recovered faster than most major markets: unemployment is below the national average at 5.6% and employment is only 1.2% below its pre-pandemic level.
- Midtown and Buckhead have shown greater resilience in the face of the current downturn.
- While leasing velocity continued to slow through the end of the year, the metro saw both a headquarters relocation and sizable headquarters expansion in Q4.
- Midtown stands to be one of the bright spots in the Atlanta office market upon recovery, benefiting from inbound growth in tech, media and finance.

Office market trends

Midtown remains the most active and dynamic component of Atlanta's office market despite higher density, reliance on public transit and concentration of tech users that are more amenable to remote work. Headlining 2020 transactions was Microsoft's expansion into Hines' two-building Atlantic Yards development for 523,511 s.f., solidifying Atlanta as a critical focal point for mega-cap tech expansion. Proximity to Georgia Tech as well as a younger talent pool are key in attracting Microsoft and other tenants to Midtown. Buckhead, on the other hand, has been more subdued, with activity largely coming in the form of renewals from high-value financial and professional services firms, which comprise the bulk of the submarket's tenant base.

Compared to the U.S. office market, Midtown and Buckhead have shown greater resilience in the face of the current downturn. As a share of inventory, combined occupancy losses of -0.9% (393,573 s.f.) in 2020 were less acute than the national CBD average of -2.6%, although they were marginally more severe than in suburban Atlanta. Asking rent declines have been modest relative to expectations, with landlords instead offering greater concession packages to preserve face rents. There is now nearly 1.4 m.s.f. of available sublease space across both submarkets – a 44.4% expansion compared to year-end 2019 – which was the primary driver of vacancy rising to 17.5%.

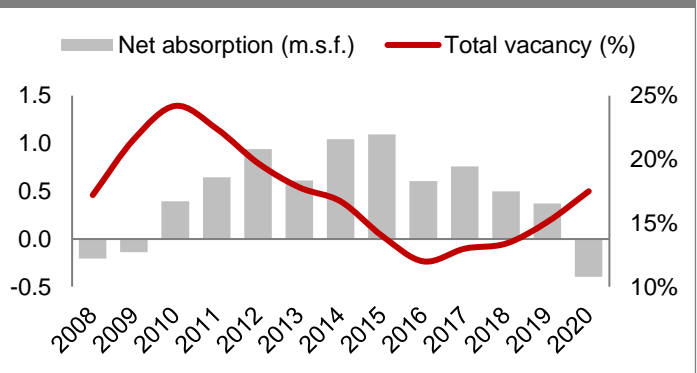
Sales activity was exceptionally quiet throughout the year: only one asset (3328 Peachtree Road NE in Buckhead) sold for more than \$5 million, as investors demonstrated significant caution given uncertainty over longer-term workplace trends. Record levels of dry powder, combined with attractive pricing and growth prospects, will likely mean a substantive increase in sales transactions as the broader economy recovers in 2021 and 2022.

Outlook

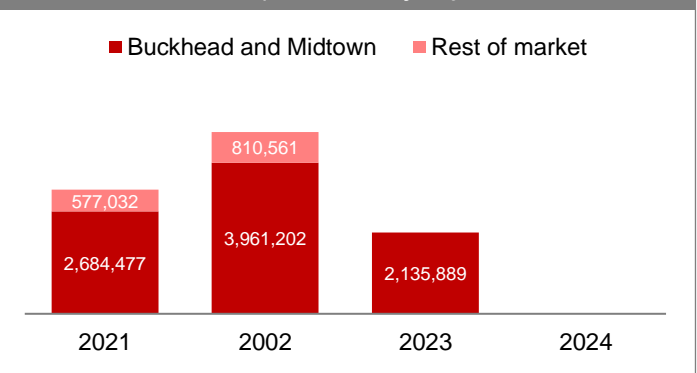
As the primary destination for both inbound corporate migration, particularly from tech users, Midtown stands to be one of the bright spots in the Atlanta office market upon recovery. Multiple transformative developments, including Midtown Union, 1105 WP, Atlantic Yards and the Norfolk Southern HQ – all pre-leased – will sustain demand for top-tier core space and cement the region as a leader in tech, R&D, media and creative arts.

Overall market statistics		Forecast
YTD net absorption (s.f.)	-958,286	▼
Under construction (s.f.)	4,850,357	▼
Total vacancy (%)	19.4%	▲
Sublease vacancy (s.f.)	2,089,522	▲
Asking rent (\$ p.s.f.)	\$29.35	▶
Concessions	Rising	▲

Despite increase, vacancy below financial crisis levels



Buckhead/Midtown capture the majority of construction



Class A cap rates are relatively stable

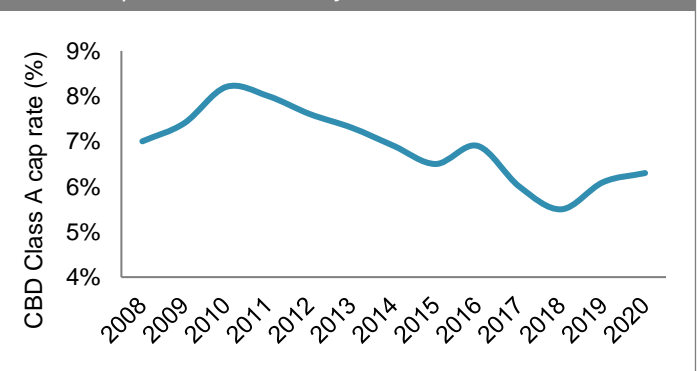


Table refers to overall market, while charts refer to Manulife submarkets

Atlanta market data

Leasing activity (Buckhead and Midtown)

Tenant	Address	Class	Lease type	Size (s.f.)
Microsoft	Atlantic Yards	A	New lease	523,511
Macy's	383 17 th Street NW	A	New lease	107,712
JLL	3344 Peachtree Road NE	Trophy	Renewal	105,396
Ameris	3500 Piedmont Road NE	A	Expansion	58,847
Ameris	3490 Piedmont Road NE	A	Blend and extend	51,000
DLA Piper	One Atlantic Center	Trophy	Renewal	46,195

Office sales (Buckhead and Midtown)

Building	RBA (s.f.)	Sales price (\$)	Price (\$ p.s.f.)	Buyer	Seller
3328 Peachtree Road NE	33,407	\$21,200,000	\$635	Renasant	Origin/Steel

Active development pipeline (Buckhead and Midtown)

Building	Developer	Spec/BTS	Completion	RBA (s.f.)	Anchor
Norfolk Southern HQ	Cousins	BTS	2021	750,000	Norfolk Southern
1105 West Peachtree Street NW	Selig	Speculative	2021	679,153	Google, Smith Gambrell
Midtown Union	Granite	Speculative	2022	612,947	Invesco
Atlantic Yards	Hines	Speculative	2021	523,511	Microsoft
712 West Peachtree Street NW	Portman	Speculative	2021	488,628	-
1 Phipps Plaza	Simon	Speculative	2021	340,000	-

Los Angeles (Downtown)

- Los Angeles registered total pandemic-induced contraction of 716,100 jobs – roughly 15.5% of total employment – driving unemployment to 20.8%.
- Unemployment well above the national average of 6.9% and unlikely to meaningfully decline further until widespread vaccination enables the re-opening of the tourism, entertainment and media industries.
- The presence of mega-cap tech, media and entertainment tenants has kept skilled employment remarkably stable in light of economic headwinds.
- Los Angeles has one of the largest and deepest pools of specialized professional services talent, with niches in entertainment law, international finance and streaming technology.
- As the busiest port in the country and a focal point for imports and exports to Asia, Los Angeles will remain a critical component of national logistics strategy and target for investment.

Office market trends

Downtown’s office market throughout the course of the past decade has been largely stable by both local and national standards. Net absorption and vacancy have both wavered on an annual basis, the latter hovering between 16% and 19% in a given year.

Much of the high-value growth in the regional economy has taken place on the Westside and in Mid-Wilshire submarkets such as Santa Monica, Hollywood and Culver City, leaving Downtown largely reliant on government, legal services and banking users that have renewed both before and during the course of the COVID-19 pandemic.

Similarly, development and sales activity has been sporadic throughout 2020 and in previous years. Only one property totaling 116,000 s.f. – the Herald Examiner Building – is currently being renovated for office use, although a number of proposals exist in the Arts District for creative and adaptive reuse aimed at tech and artistic tenants such as Honey, which established its headquarters at the former Coca-Cola Building in 2018.

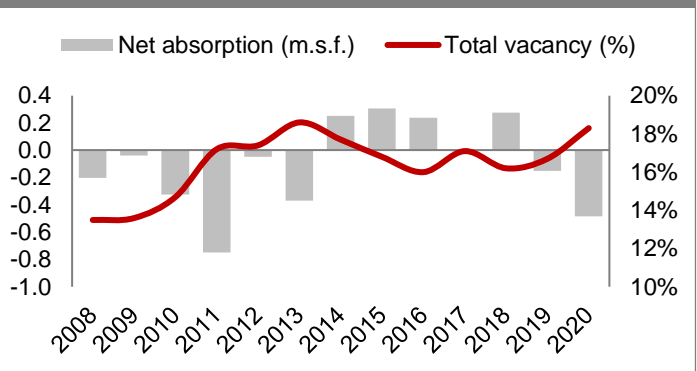
From a sales perspective, Silverstein made headlines with its deeply discounted acquisition of the U.S. Bank Tower from OUE for \$430 million, while 915 Wilshire also switched hands.

Outlook

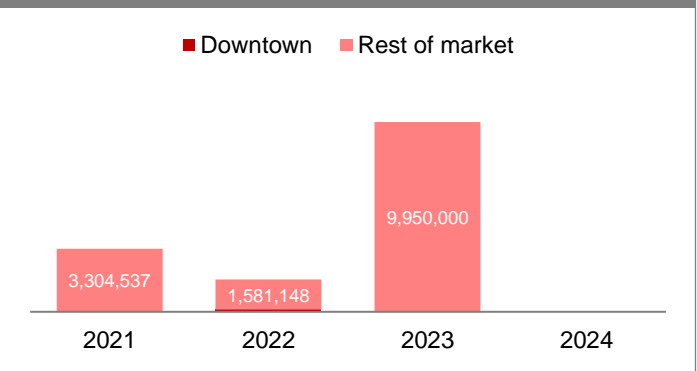
Downtown Los Angeles’ short- and long-term trajectory will remain broadly focused on its booming multi-family market, with numerous large-scale developments underway and in planning. This will catalyze future boutique office development in the form of adaptive reuse for companies taking advantage of a growing nearby residential population, but corporate-grade new construction is unlikely. Firms based on the Westside may set up satellite offices Downtown for de-densification purposes, but the amount of demand for this is currently unclear.

Overall market statistics		Forecast
YTD net absorption (s.f.)	-4,305,819	▼
Under construction (s.f.)	6,044,795	▼
Total vacancy (%)	16.3%	▲
Sublease vacancy (s.f.)	6,512,324	▲
Asking rent (\$ p.s.f.)	\$45.48	▶
Concessions	Rising	▲

CBD demand had already been wavering pre-pandemic



Only one building is under construction in the CBD



Class A cap rates are rising, but may moderate in 2021

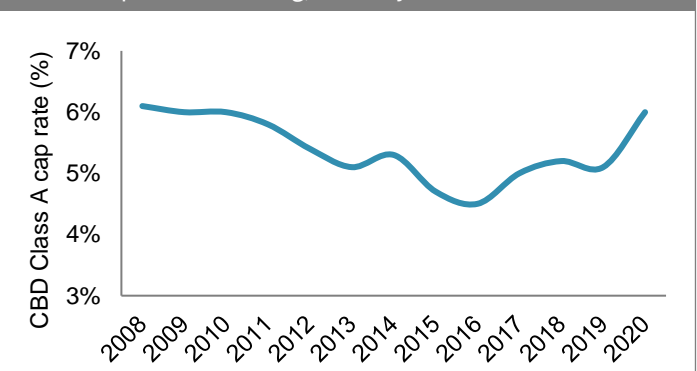


Table refers to overall market, while charts refer to Manulife submarkets

Los Angeles market data

Leasing activity (Downtown)

Tenant	Address	Class	Lease type	Size (s.f.)
LA Dep't of Water and Power	233 S Beaudry Avenue	A	Relocation	132,000
Morgan Lewis	One California Plaza	Trophy	Renewal	92,044
Pillsbury	725 S Figueroa Street	Trophy	Relocation	66,000
Wells Fargo	Aon Center	A	Expansion	65,610
Latham & Watkins	Gas Company Tower	Trophy	Renewal	50,000
Alliant	Bank of America Plaza	Trophy	Renewal	40,048

Office sales (Downtown)

Building	RBA (s.f.)	Sales price (\$)	Price (\$ p.s.f.)	Buyer	Seller
U.S. Bank Tower	1,371,483	\$430,000,000	\$314	Silverstein	OUE
915 Wilshire Boulevard	376,000	\$196,000,000	\$521	Deka	Lincoln
821 Traction Avenue	20,389	\$16,500,000	\$809	-	-
Farmers & Merchants Building	16,446	\$8,200,000	\$499	Main Street Trading	Gilmore
1143 S Hope Street	14,543	\$7,900,000	\$543	Neama Rahmani	California Group

Active development pipeline (Downtown)

Building	Developer	Spec/BTS	Completion	RBA (s.f.)	Anchor
Herald Examiner Building	Georgetown	Speculative	2022	470,000	ASU Enterprise Partners

New Jersey (Hudson Waterfront and the Meadowlands)

- The Tri-State Area's high cost of living, domestic movement of corporate jobs to the South and Mountain West and the fallout from tax reform passed in 2017 continue to catalyze out-migration.
- Intra-market migration to the suburbs is causing demand for new housing and will help to ameliorate the state and many of its municipalities' strained revenue bases.
- The local office market, however, has gained relatively little from potential relocations out of New York City as companies opt to help remote workers set up home offices in lieu of establishing satellite locations.
- Conditions remain overwhelmingly tenant favorable, as has been the case throughout the current cycle. 847,575 s.f. of negative net absorption pushed Hudson Waterfront vacancy to a record 23.3%.

Office market trends

The local office market, unlike the housing market, has gained relatively little from potential relocations out of New York City as companies opt to help remote workers set up home offices in lieu of establishing satellite locations. Leasing activity instead was driven by financial and insurance renewals in Jersey City as well as being one of the targets of AIG's Tri-State Area consolidation into two Manhattan offices and one Jersey City location at 30 Hudson Street. Nearby, BNP Paribas renewed 188,000 s.f. at 525 Washington Boulevard, while Hartz Mountain Industries relocated within Secaucus to a more mixed-use location.

Conditions remain overwhelmingly tenant favorable, as has been the case throughout the current cycle. 847,575 s.f. of negative net absorption pushed Hudson Waterfront vacancy to a record 23.3%, having incrementally risen over the past decade despite modest employment and population growth. On the other hand, occupancy barely budged in the Meadowlands, leading vacancy to stay stable at 23.5% at year-end. In the absence of meaningful new development apart from the Offices at Maxwell Place in Hoboken, oversupply is less of a concern as much as continued consolidation or move-outs as part of wider relocations.

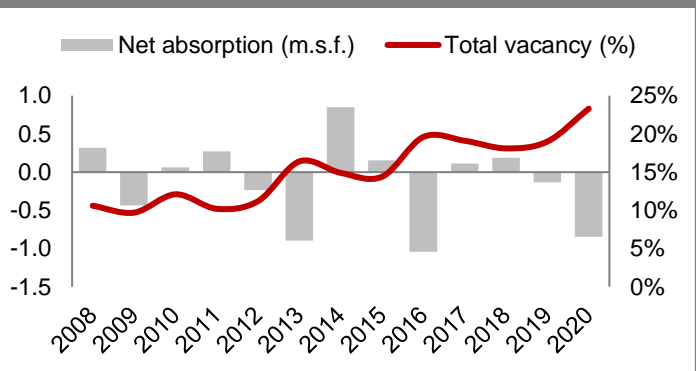
The sale of 545 Washington Boulevard to Harbor Group from LeFrak, which had already disposed of a number of assets in 2019, was by far the most notable sale of the year, followed by the trade of the Liberty Innovation Center. Investment is likely to be subdued given anemic local office market fundamentals and muted tenant demand to improve cash flows and boost rents, although investors may find that this is a time for opportunistic acquisitions.

Outlook

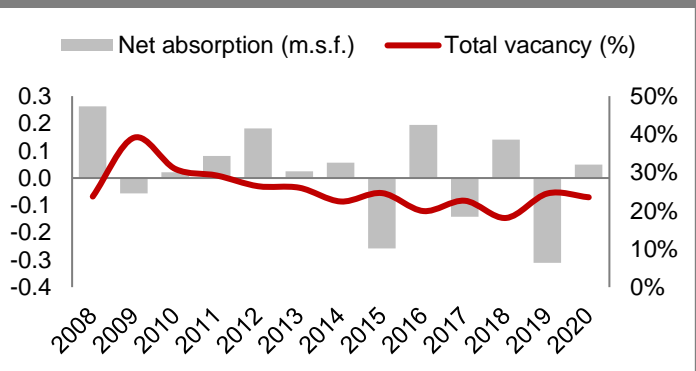
Compared to New York City, the Hudson Waterfront and Meadowlands submarkets have been relatively stable in recent years, reducing the office-related fallout from COVID-19. Activity may, however, be induced as the state's incentives program has been revamped and could attract cost-conscious tenants.

Overall market statistics		Forecast
YTD net absorption (s.f.)	-3,970,767	▼
Under construction (s.f.)	162,700	►
Total vacancy (%)	25.6%	▲
Sublease vacancy (s.f.)	6,014,303	▲
Asking rent (\$ p.s.f.)	\$29.04	▼
Concessions	Rising	▲

Hudson Waterfront vacancy hit a new high in 2020



Meadowlands vacancy approaching 25% as losses mount



Class A cap rates are hovering around 5.5%

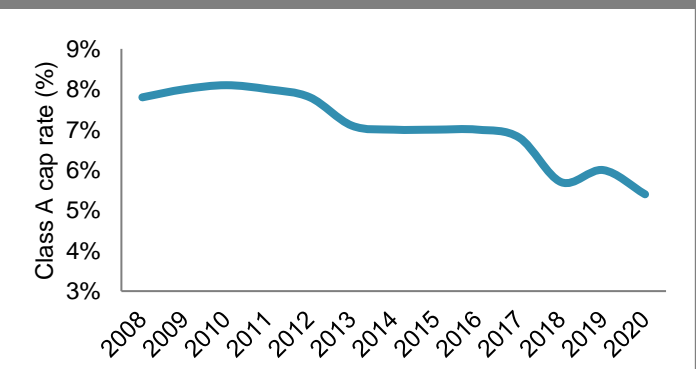


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New Jersey market data

Leasing activity (Hudson Waterfront and the Meadowlands)

Tenant	Address	Class	Lease type	Size (s.f.)
AIG	30 Hudson Street	A	Relocation	227,852
BNP Paribas	525 Washington Boulevard	A	Renewal	188,000
Hartz Mountain Industries	500 Plaza Drive	A	Relocation	52,580
News America Marketing	545 Washington Boulevard	A	New lease	42,643
AXA	500 Plaza Drive	A	Renewal	41,465
Snow Joe	221 River Street	A	New lease	40,000

Office sales (Hudson Waterfront and the Meadowlands)

Building	RBA (s.f.)	Sales price (\$)	Price (\$ p.s.f.)	Buyer	Seller
545 Washington Boulevard	866,706	\$372,800,000	\$430	Harbor	LeFrak
Liberty Innovation Center	300,000	\$94,500,000	\$315	Thor	Prudential
43 Meadowlands Parkway	113,145	\$7,500,000	\$66	Moshe Yan	Hartz Mountain

Active development pipeline (Hudson Waterfront and the Meadowlands)

Building	Developer	Spec/BTS	Completion	RBA (s.f.)	Anchor
The Offices at Maxwell Place	Toll Brothers	Speculative	2021	110,700	-

Northern Virginia (Fairfax Center and Fairfax City)

- Insulated by the federal government, unemployment peaked in April 2020 at 9.8%, making it one of the lowest peak levels of unemployment among primary geographies.
- Northern Virginia had emerged in recent years as a leader in regional economic growth with renewed focuses on defense – in particular cybersecurity – and professional services and consulting related to contracting.
- These strengths and their geographic inelasticity will be critical in ensuring that Northern Virginia recovers more quickly than peer markets.
- In 2020, Fairfax’s leasing activity was dominated by renewals from government and defense users, with overall volumes well below historic norms.

Office market trends

Fairfax Center and Fairfax City continue to grapple with aging inventory and consolidation of activity into distinct nodes such as the Toll Road, the Rosslyn-Ballston Corridor and National Landing. As a result, occupancy losses occurred nearly 1.9x faster in Fairfax than the broader Northern Virginia market (-3.0% vs. -1.6% of inventory), pushing vacancy to 23.3% in the process. Although Northern Virginia’s Class A market saw occupancy losses of just -0.2% over the course of the year, the relative dearth of quality space meant that the flight to quality characteristic of relocating users during the pandemic was not realized in Fairfax.

In 2020, Fairfax’s leasing activity was dominated by renewals from government and defense users, with overall volumes well below historic norms. Owing to re-entry planning uncertainties as well as the submarkets’ tenant profiles, there was no large leasing in 2020, further subduing activity from baseline expectations. Investment was slightly more active as \$133.9 million in office assets across five sales traded hands, however, and pricing was consistent in the \$125-\$275 p.s.f. range.

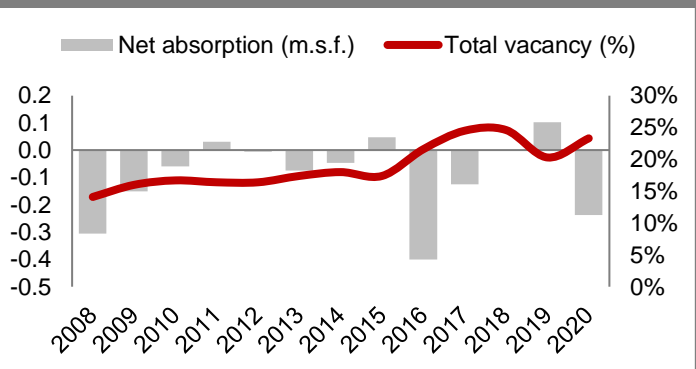
Outlook

Congressional alignment bodes well for office activity and investment in Metro DC and in particular Northern Virginia, which will likely aid the market in its recovery beginning later in 2021 as appropriations and procurement are more fully fleshed out. A sustained emphasis on cybersecurity and intelligence efforts may lead to overspill in Fairfax given corporate parks’ greater inherent levels of security.

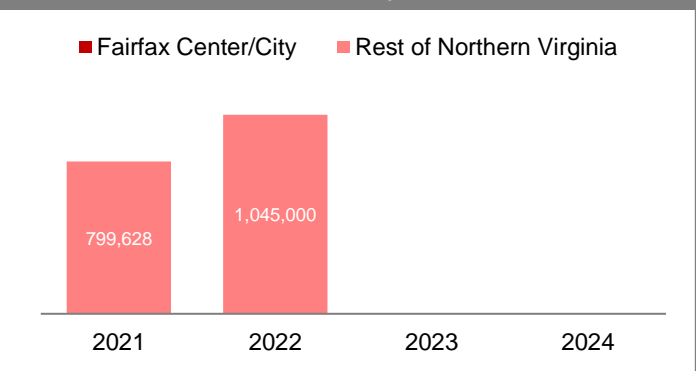
At the same time, shifting tenant preferences and the need for space that focuses on top-of-the-line ventilation and wellbeing amenities along with greater connectivity and access will be roadblocks for more holistic growth in Fairfax. Investors may find value in repurposing older campuses for educational, government or medical use, which will help to reduce supply and, in turn, vacancy rates.

Overall market statistics		Forecast
YTD net absorption (s.f.)	-2,427,139	▼
Under construction (s.f.)	1,868,429	▼
Total vacancy (%)	20.0%	▲
Sublease vacancy (s.f.)	1,845,717	▲
Asking rent (\$ p.s.f.)	\$35.79	▶
Concessions	Rising	▲

Vacancy continued its pre-pandemic upward trend



New construction has shifted away from Fairfax



Class A cap rates have had little movement this cycle

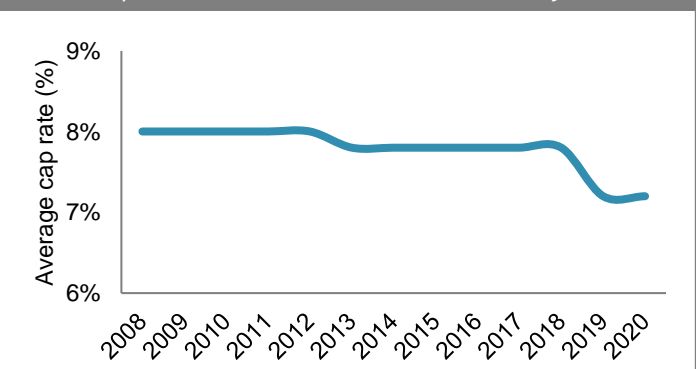


Table refers to overall market, while charts refer to Manulife submarkets

Northern Virginia market data

Leasing activity (Fairfax Center and Fairfax City)

Tenant	Address	Class	Lease type	Size (s.f.)
Fairfax County Board of Supervisors	10777 Main Street	C	Renewal	61,563
Avixa	11242 Waples Mill Road	C	Renewal	28,993
Teoco	12150 Monument Drive	A	Renewal	25,724
MAG Aerospace	12730 Fair Lakes Circle	A	Renewal	25,454
Commonwealth of Virginia	10680 Main Street	C	New lease	20,701
Tiber Creek Consulting	12015 Lee Jackson Highway	B	Renewal	19,926

Office sales (Fairfax Center and Fairfax City)

Building	RBA (s.f.)	Sales price (\$)	Price (\$ p.s.f.)	Buyer	Seller
1 Fair Oaks Plaza	214,214	\$58,000,000	\$271	Tritower	Beacon
Pender Business Park	170,940	\$25,100,000	\$147	Jill Martin	OPIT
3920 Pender Drive	83,130	\$23,000,000	\$277	Wash. Alliance Capital	OPIT
4375 Fair Lakes Court	73,133	\$17,600,000	\$241	Global Medical REIT	Jill Martin
10366 Democracy Lane	82,818	\$10,200,000	\$123	Capstone	Courthouse Plaza One

Orange County (Irvine)

- Compared to the neighboring markets of Los Angeles and San Diego, Orange County has withstood the economic brunt of COVID-19 in a more resilient manner.
- The county also benefits from less reliance on international tourism and visitors and a greater share of economic output coming from growth sectors such as automation, semiconductor manufacturing and finance.
- Orange County has a number of macroeconomic and demographic issues that need to be addressed to ensure longer-term growth.
- Occupancy fell by just 1% in 2020 compared to 1.7% for Orange County as a whole, while Irvine's 14.5% vacancy rate is 60 basis points below the county average.
- Irvine will particularly reap the rewards of its established innovation ecosystem comprised of numerous educational and research incubators and institutions.

Office market trends

Irvine and Irvine Spectrum's tenant bases focused on high-value engineering, tech, automation and banking are keeping fundamentals healthy in the context of current public health concerns. Occupancy fell by just 1% in 2020 compared to 1.7% for Orange County as a whole, while Irvine's 14.5% vacancy rate is 60 basis points below the county average. The rent premium for space in these submarkets has diminished slightly, but is still strong at 4.9%.

From a leasing perspective, Panasonic Avionics led all activity as it relocated its headquarters to 222,150 s. f. at Park Place from its previous home in Lake Forest. Elsewhere, transactions were mostly short-term extensions from tech, hedge funds and health services tenants in an effort to delay decision-making.

Two projects are currently under construction in Irvine, both being developed by the Irvine Company, and make up the majority of 2021 deliveries in Orange County and a significant portion of the entire pipeline. With only one anchor tenant, these will lead to a short-term bump in vacancy, but this should abate as Irvine remains at the core of the region's economy and office market, being a prime choice for new and expanding tenants.

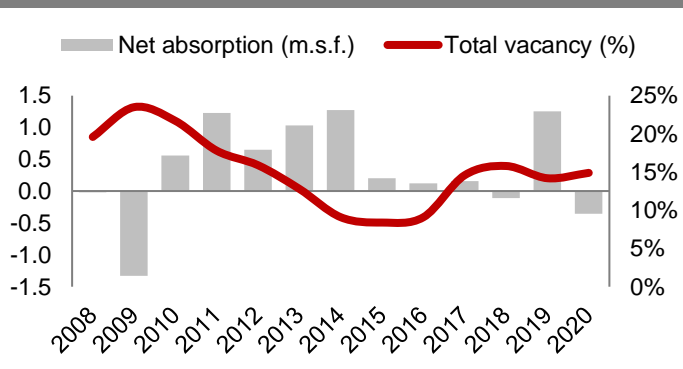
On the other hand, the market saw little in the way of investment sales, a temporary slump before renewed sales volume likely to be realized starting in mid-2021.

Outlook

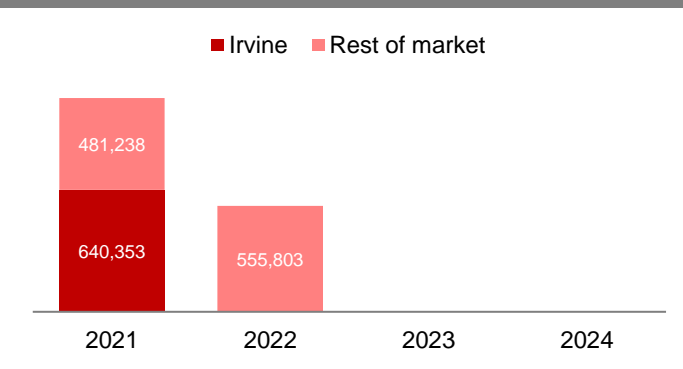
Orange County's economic base, lower volatility and cost advantages when compared to Los Angeles will result in a more traditional recovery trajectory. Irvine will particularly reap the rewards of its established innovation ecosystem comprised of numerous educational and research incubators and institutions, remaining attractive for growth-oriented companies.

Overall market statistics		Forecast
YTD net absorption (s.f.)	-1,658,458	▶
Under construction (s.f.)	1,021,209	▼
Total vacancy (%)	15.1%	▲
Sublease vacancy (s.f.)	1,314,885	▲
Asking rent (\$ p.s.f.)	\$36.48	▶
Concessions	Rising	▲

Net absorption was negative, but only moderately so



No new construction in Irvine will allow for tightening



Class A cap rates compressed slightly in 2020

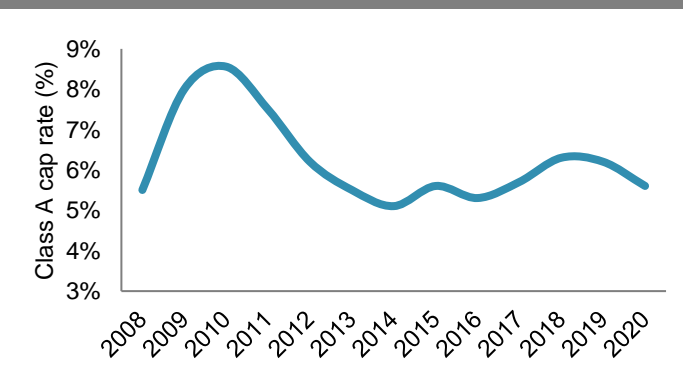


Table refers to overall market, while charts refer to Manulife submarkets

Orange County market data

Leasing activity (Irvine)

Tenant	Address	Class	Lease type	Size (s.f.)
Panasonic Avionics	Park Place	A	Relocation	222,150
American Advisors	Irvine Towers	A	Renewal	61,368
Mobilityware	440 Exchange	B	Renewal	50,000
Smile Brands	100 Spectrum Center	A	Renewal	49,722
Intercontinental Capital	400 Spectrum Center	A	Relocation	44,534
Microchip Technology	165 Technology Drive	B	New lease	43,920

Office sales (Irvine)

Building	RBA (s.f.)	Sales price (\$)	Price (\$ p.s.f.)	Buyer	Seller
Broadcom HQ	660,900	\$355,000,000	\$537	PRP	Fivepoint
Pacifica Irvine Spectrum	110,400	\$43,000,000	\$389	Meridian/Harrison St	BlackRock
111 Pacifica	67,500	\$26,200,000	\$387	Toda	Canopi
Von Karman Tech Center	100,461	\$25,400,00	\$253	Dayani	KBS
2405-2445 McCabe Way	89,479	\$21,000,00	\$234	Mlink	Swift

Active development pipeline (Irvine)

Building	Developer	Spec/BTS	Completion	RBA (s.f.)	Anchor
Spectrum Terrace	Irvine Company	Speculative	2021	344,353	TGS
Innovation Park	Irvine Company	Speculative	2021	296,000	-

Sacramento (overall)

- Sacramento's government-heavy economic profile provides significant insulation from downturns and a buffer against greater volatility.
- Lower real estate costs and proximity to the Bay Area are likely to influence movement into the market as users with flexible work opportunities seek affordable housing and reduced commute.
- A lack of meaningful new supply delivering over the past decade means that Sacramento has a dearth of Trophy or Class A+ space, which will keep fundamentals more in check.
- Government, health and education users dominated leasing activity throughout the year.
- Sacramento is likely to come out of COVID-19 less scathed than other West Coast office markets, buoyed by a counter-cyclical and heavily credit-worthy tenant base.

Office market trends

Throughout 2020, Sacramento saw 624,784 s.f. of negative net absorption, which was mostly attributable to direct (-477,105 s.f.) rather than sublease (-147,649 s.f.) occupancy declines, unlike many other markets. Equating to 1.4% of inventory, this is 50 basis points slower than the rate of occupancy loss nationally and far more resilient than San Francisco, Los Angeles, Orange County and the suburban Bay Area. As a result, vacancy only rose to 13.8%; in context, peak vacancy during the financial crisis was 24.8%. Asking rents are still trending upwards, but rising concessions are leading to flat and in some cases falling effective rents.

In line with expectations, government, health and education users dominated leasing activity throughout the year. The U.S. Army Corps of Engineers, Covered California and the California Department of Employment all renewed their footprints for a combined total of 611,857 s. f., while the UC Davis Health System relocated to Capital Center II in Rancho Cordova.

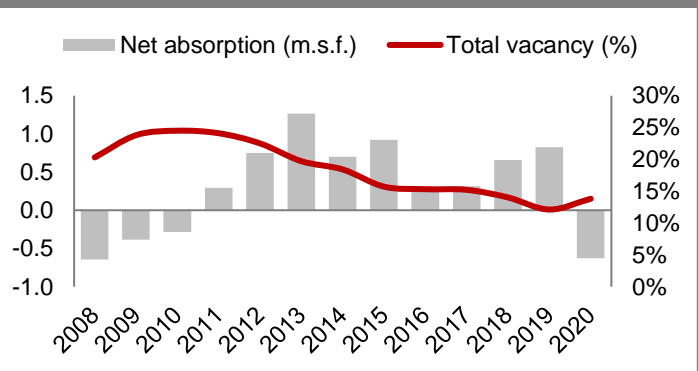
Two assets – Park Tower in the CBD and the HPE Campus in Roseville – traded hands for more than \$100 million in 2020, with a combined value of \$266.5 million and pricing of nearly \$350 p.s.f. for the former. These deals were complemented by a slew of smaller (sub-\$30 million) transactions. On the other hand, construction activity is now non-existent; this will keep fundamentals in check over the short-term, although demand remains for quality space in both urban and suburban submarkets.

Outlook

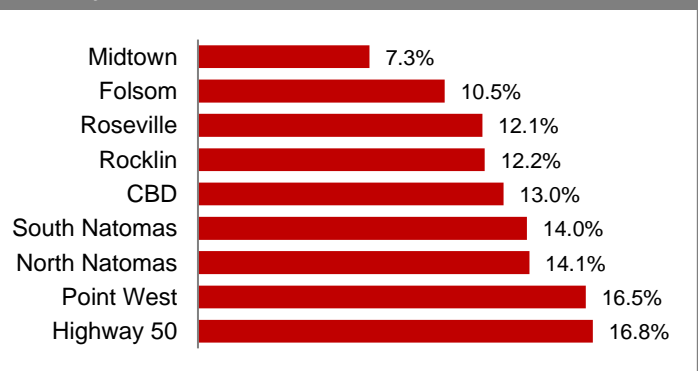
Sacramento is likely to come out of COVID-19 less scathed than other West Coast office markets, buoyed by a counter-cyclical and heavily credit-worthy tenant base. Migration from more expensive geographies could provide some additional room for runway, but will be dependent upon the longer-term viability of satellite offices and how companies handle office re-entry.

Overall market statistics		Forecast
YTD net absorption (s.f.)	-658,230	▶
Under construction (s.f.)	0	▶
Total vacancy (%)	13.9%	▲
Sublease vacancy (s.f.)	397,223	▲
Asking rent (\$ p.s.f.)	\$26.28	▶
Concessions	Rising	▲

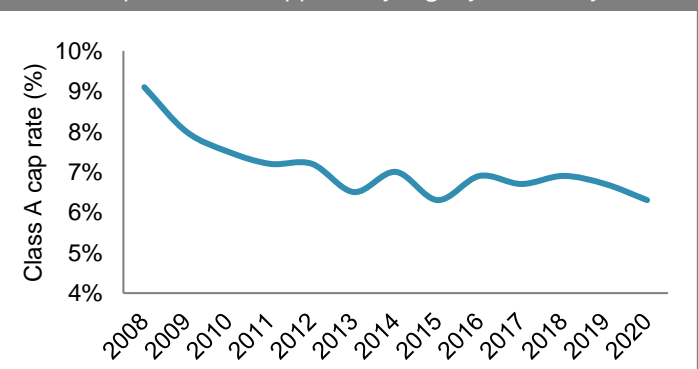
Little new supply is keeping fundamentals in check



Vacancy remains under 15% in most submarkets



Class A cap rates have dipped only slightly in recent years



All data refers to overall market

Sacramento market data

Leasing activity (overall)

Tenant	Address	Class	Lease type	Size (s.f.)
U.S. Army Corps of Engineers	1325 J Street	A	Renewal	230,319
UC Davis Health	10850 White Rock Road	A	New lease	194,150
Covered California	1601 Exposition Boulevard	B	Renewal	123,417
Centene	10730 International Drive	A	Renewal	104,569
State of California Dep't of Employment	9815 Goethe Road	B	Renewal	80,000
Centene	10734 International Drive	A	Renewal	73,552

Office sales (overall)

Building	RBA (s.f.)	Sales price (\$)	Price (\$ p.s.f.)	Buyer	Seller
Park Tower	481,885	\$165,000,000	\$342	Prime US	Hines/GEM
HPE Campus	447,364	\$101,500,000	\$227	Dimah	Stonemont
Lava Ridge Business Center	138,836	\$29,900,000	\$215	KB Exchange Trust	Barker Pacific
3010 Lava Ridge Court	139,000	\$29,300,000	\$211	Kingsbarn	Barker Pacific
2891 Douglas Boulevard	110,791	\$29,200,000	\$264	Kingsbarn	Barker Pacific
Arena Gateway	85,153	\$28,100,000	\$330	New York Life	Swift

Washington, D.C. (CBD)

- Metro DC unemployment peaked in April 2020 at 9.8%, making it one of the lowest peak levels of unemployment among primary geographies.
- DC's squeezed federal and consulting employment base has outweighed its nascent tech sector.
- 2.3 m.s.f. of deliveries over the past three years and COVID-induced give-backs, have exerted significant upward pressure on vacancy.
- Landlords have responded with a 2.9% decrease in average asking rents and TI allowances routinely exceeding \$150 p.s.f. for Class A assets.
- Vacancy will remain elevated in the CBD and throughout most of the DC core.

Office market trends

Despite Washington, D.C.'s traditionally counter-cyclical office trends, multiple years of rightsizing from legal, consulting and professional services firms, combined with 2.3 m.s.f. of deliveries over the past three years and COVID-19-induced give-backs, have exerted significant upward pressure on vacancy. Total vacancy at year-end 2020 reached 18.2%, a 440-basis-point rise over the year.

Compared to other gateway geographies, this was barely the result of rising sublease space, but rather planned relocations from tenants to new supply and the remaining blocks in these buildings being available directly. Landlords have responded with a 2.9% decrease in average asking rents and TI allowances routinely exceeding \$150 p.s.f. for Class A assets.

The Federal Reserve's three-part, 375,476-s.f. renewal at International Square dominated CBD transactions in 2020 and was supplemented by Wiley Rein relocating to Tishman Speyer's recently delivered 2050 M Street NW, joining Paul Hastings as another law firm moving there this year. Leasing in 2021 will also be subdued, in part because a large share of firms have already relocated in recent years, pushing subsequent expirations to the 2030s.

Two speculative developments – 2100 Pennsylvania Avenue NW and 2100 L Street NW – are currently under construction in the CBD. Both have anchor tenants, but their delivery will lead to a net increase in vacancy as these are from relocating users who will be giving back a greater amount of space than they plan to take on.

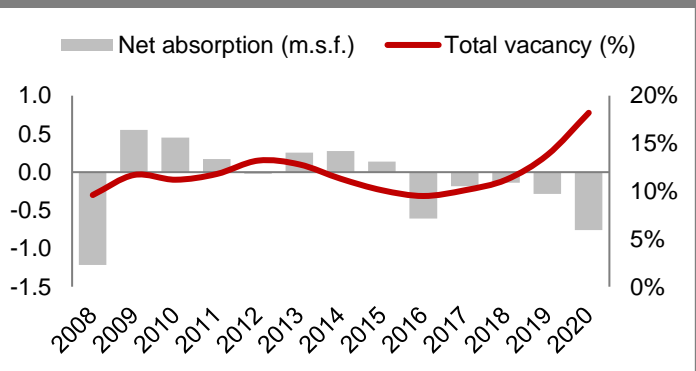
Outlook

Vacancy will remain elevated in the CBD and throughout most of the DC core for the foreseeable future in the absence of key growth drivers from an office demand standpoint and a gradual re-entry to the workplace.

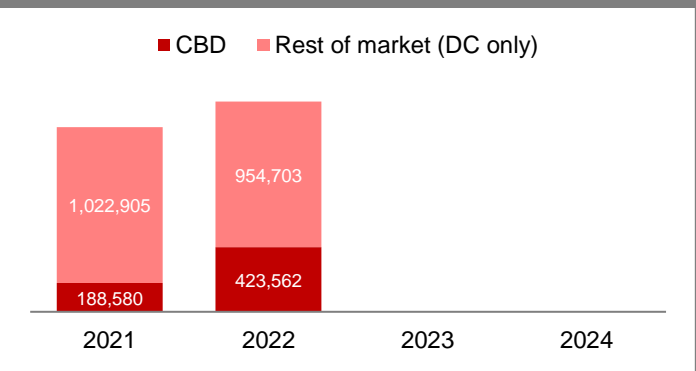
Local policy to accelerate the repurposing of obsolete office space for residential use has gained steam and may help to alleviate vacancy rates and stem future occupancy losses.

Overall market statistics		Forecast
YTD net absorption (s.f.)	-1,281,491	▼
Under construction (s.f.)	2,694,750	▼
Total vacancy (%)	15.8%	▲
Sublease vacancy (s.f.)	2,233,431	▲
Asking rent (\$ p.s.f.)	\$59.42	▶
Concessions	Rising	▲

Vacancy rose by 440bp in 2020 to a record 18.2%



All new supply will deliver by 2022



Class A cap rates see little movement without large deals

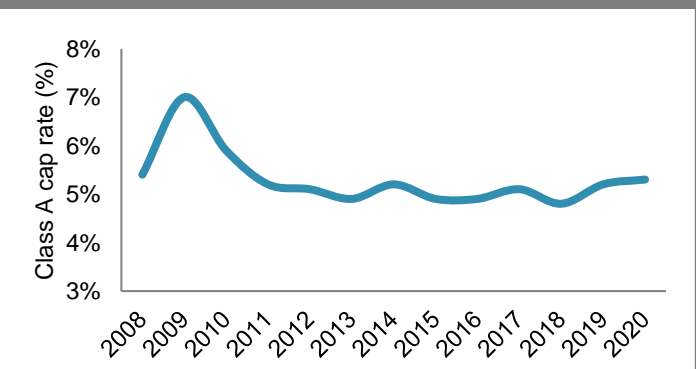


Table refers to overall market, while charts refer to Manulife submarkets

Washington, D.C. market data

Leasing activity (CBD)

Tenant	Address	Class	Lease type	Size (s.f.)
Federal Reserve	1850 K Street NW	B	Renewal	188,005
Wiley Rein	2050 M Street NW	Trophy	Relocation	166,250
Federal Reserve	1825 I Street NW	B	Renewal	106,040
Wilson Sonsini	1700 K Street NW	A	Renewal	100,000
Federal Reserve	1875 I Street NW	B	Expansion	81,431
U.S. Secret Service	1111 18 th Street NW	B	Renewal	74,234

Office sales (CBD)

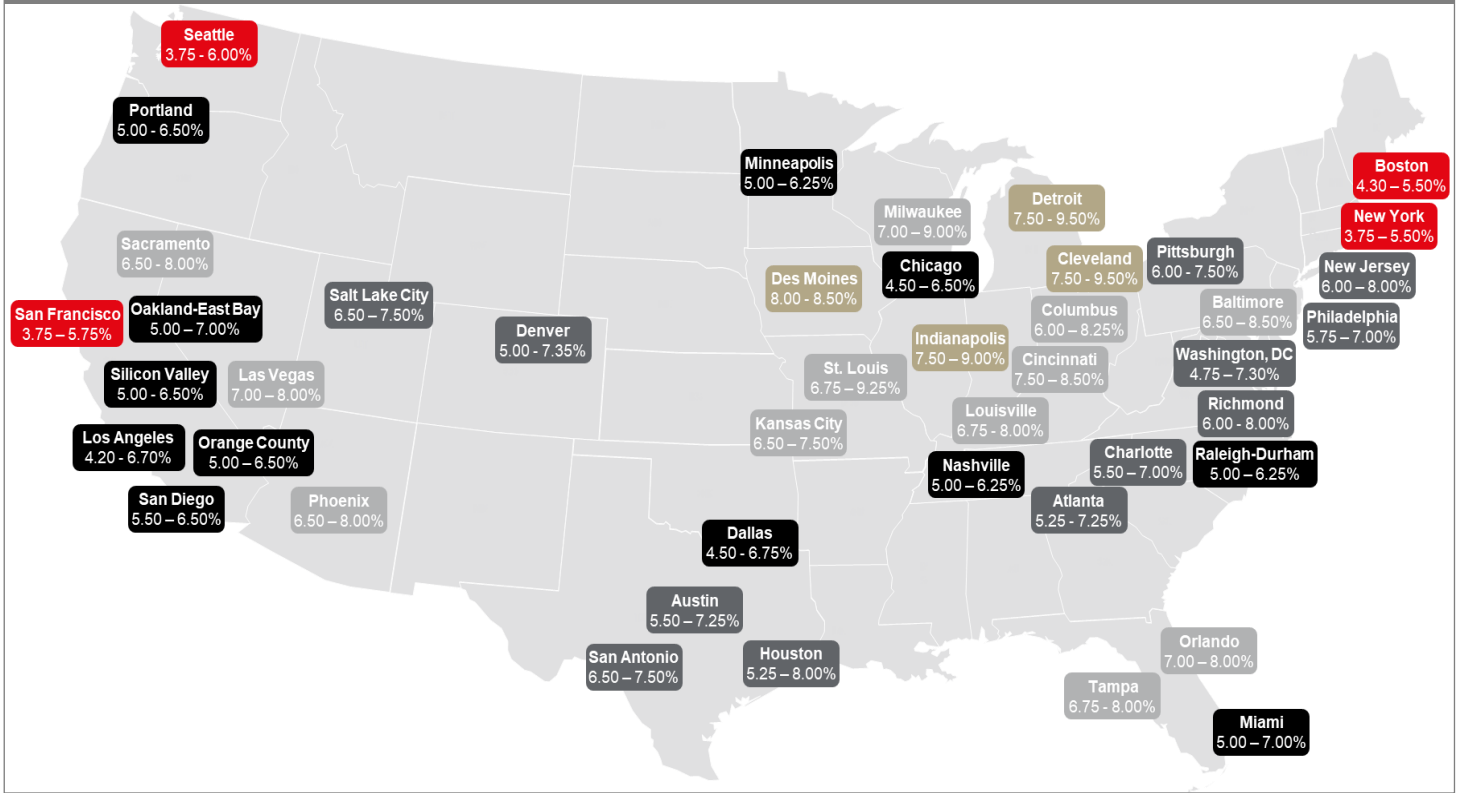
Building	RBA (s.f.)	Sales price (\$)	Price (\$ p.s.f.)	Buyer	Seller
1899 Pennsylvania Avenue NW	195,545	\$92,200,000	\$472	MRP/Sterling Bay/GSS	Paramount
1129 20 th Street	176,000	\$84,800,000	\$482	Monument	Prologis
1301 Connecticut Avenue NW	63,400	\$32,500,00	\$512	Aldwaliya	Shorenstein

Active development pipeline (CBD)

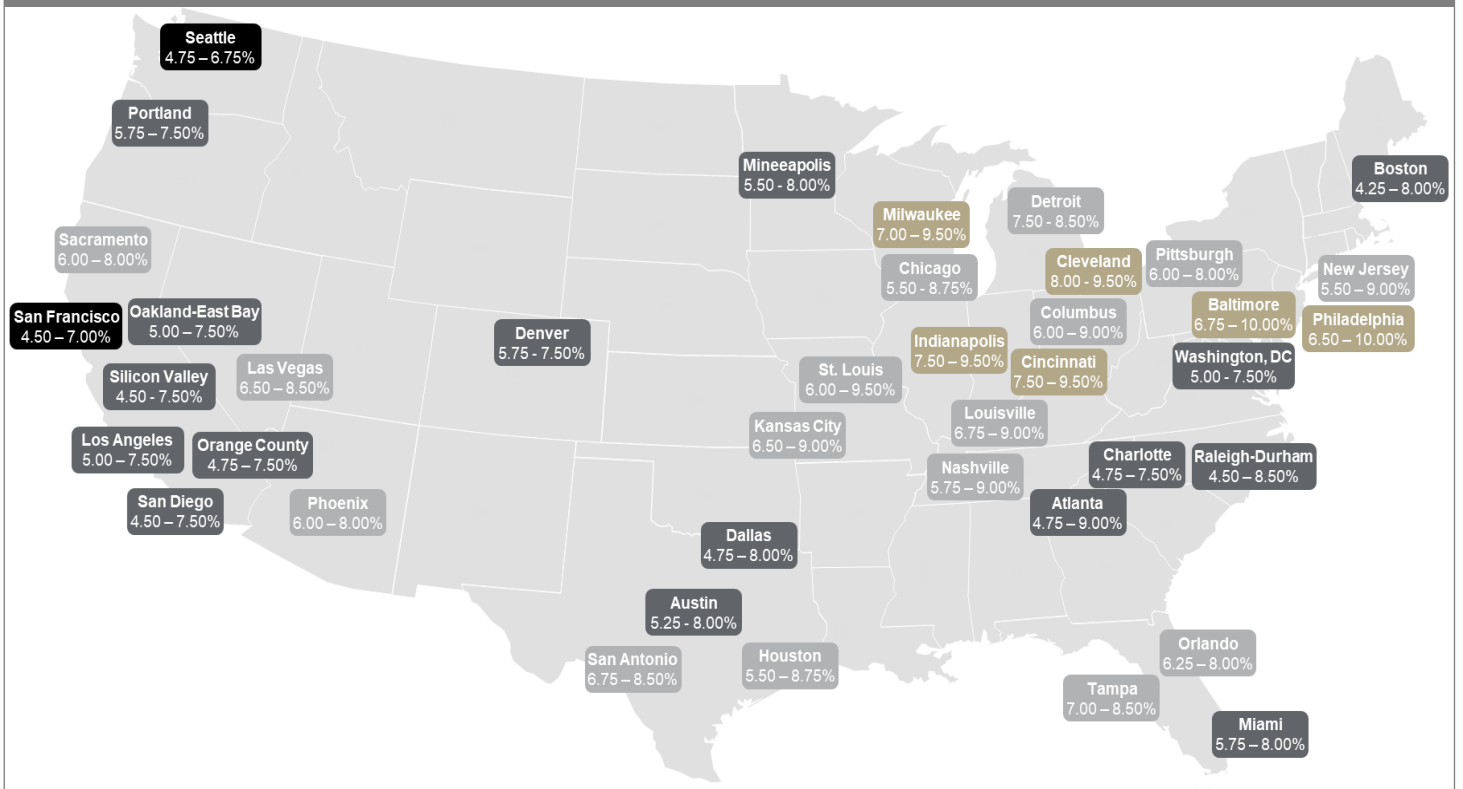
Building	Developer	Spec/BTS	Completion	RBA (s.f.)	Anchor
2100 Pennsylvania Avenue NW	Boston Properties	Speculative	2022	423,562	WilmerHale
2100 L Street NW	Akridge	Speculative	2021	188,580	Morrison & Foerster

Cap rates by market

CBD Class A cap rates by market



Suburban Class A cap rates by market



Methodology and terms of use

Methodology

JLL leverages proprietary leasing data with a blend of public, government-issued and third-party sources to produce our economic and market reports.

Office inventory spans 50+ U.S. local markets and is generally limited to investment-grade assets larger than 30,000 s.f., excluding medical office and owner-occupied assets.

Net absorption is recognized upon lease commencement and/or physical move-in, not lease sign date. Vacancy is recognized upon physical move-out or lease expiration date, not the time at which space is advertised for lease.

All sources are deemed reliable, but in some cases, information cannot be independently verified.

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