MARKET FORECAST

OFFICE

Bay Area

IPA INSTITUTIONAL PROPERTY ADVISORS

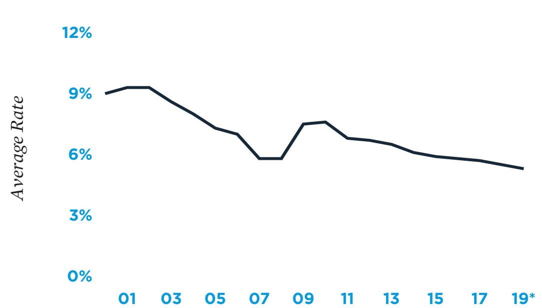
Q2/19

High-Growth Tech Firms Generating Tremendous Demand for Space Amid Resilient Economy

Job growth reaccelerating as firms rapidly expand. Even as unemployment remains near the lowest levels in over 20 years, technology and biotech firms, along with multiple vibrant startups, are continually hiring. These corporate giants have dramatically altered the landscape for premier office space, contracting vacancy rates well below the previous cycle lows recorded before the Great Recession. Builders have responded, lifting expected 2019 development to the highest point of the current cycle. However, net absorption has surged past supply growth, reaching nearly 9.3 million square feet in 2018. Some of the largest firms in the nation, including Facebook, Google, Merck and Amazon, have all signed considerable leases in the past year that will foster the next wave of growth. As conditions tighten further, rent growth will accelerate dramatically, particularly for the most modern, amenity-filled buildings.

Pipeline centered on San Francisco, San Jose sites. Amid extremely tight conditions, builders have opted for an ambitious scope and scale with this year's office additions. In San Francisco, Park Tower At Transbay and The Exchange will both exceed 750,000 square feet, meeting space demand among the largest companies in the world. In Santa Clara County, Google's new headquarters in Mountain View leads the delivery schedule at nearly 600,000 square feet. Moffett Towers in Sunnyvale will also add two 350,000-square-foot buildings. In the East Bay, the Oakland City Center and two medical office buildings round out the pipeline.

Local Office Yield Trends



** Cap rate trailing 12-month average through 1Q*
Includes sales $1 million and greater for San Francisco, Santa Clara County and East Bay/Oakland.
Sources: CoStar Group, Inc.; Real Capital Analytics

Office 2019 Outlook

Metro	Vacancy	Y-O-Y Basis Point Change	Average Asking Rent	Y-O-Y Change
San Francisco	8.4%	-40	$62.98	4.5%
Santa Clara County	11.1%	-30	$53.48	6.2%
Oakland/East Bay	11.5%	-10	$41.70	7.5%

Investment Trends

San Francisco

- Rapid price gains and elevated dollar volume remain the key drivers of assets inside the city limits of San Francisco. Institutional deal flow in Union Square and the Financial District underpin the vast majority of closed transactions.
- Interest in the North Bay and San Mateo are underpinned by smaller properties exchanging prices below the metro average due to lease-up risk or other factors such as property age.

Santa Clara County

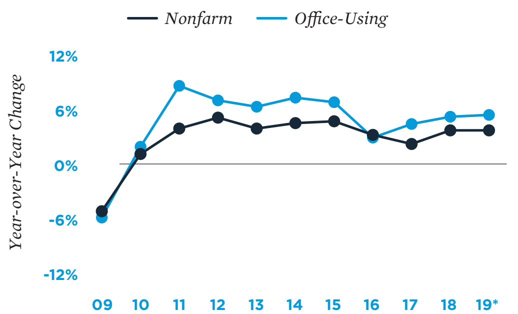
- While corporate deal flow has skewed toward the western edge of the county in Sunnyvale, Mountain View and Palo Alto, where prices are well above the metro average, private investors have been most active in San Jose.
- Pricing and cap rates offer considerable value in San Jose and Santa Clara, where a lack of institutional quality assets are allowing investors to achieve significant outperformance.

East Bay/Oakland

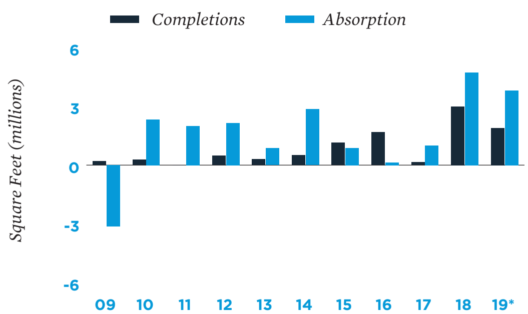
- Assets in Oakland, Berkeley and Emeryville continue to draw the vast majority of capital flows as investors bet on strength in the urban core. A combination of mass transit, nearby housing and relatively higher yields motivate investors.
- Outside the urban core, buyers remain active in the I-680 Corridor between Walnut Creek and Pleasanton, where cap rates and prices are below the metro average.

Current Trends

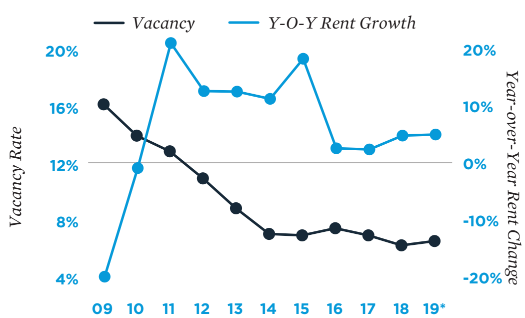
Employment Trends



Office Supply and Demand



Vacancy and Rent Trends



Sales Trends

Trailing 12 months through 1Q19
Sources: Marcus & Millichap Research Services; CoStar Group, Inc.

1Q19 – 12-Month Period

METRO EMPLOYMENT

3.7% increase in total employment Y-O-Y

- Over the past year, San Francisco employers added 42,100 new workers, expanding total employment 3.7 percent. This represents a considerable acceleration from the previous yearlong period when 26,300 jobs were created.
- The professional and business services and information technology sectors led job creation, adding 13,800 and 7,200 workers to payrolls, respectively. Unemployment has fallen to 2.3 percent.

CONSTRUCTION

1.9 million square feet completed Y-O-Y

- Deliveries slowed slightly over the past year, falling from more than 2 million square feet to 1.9 million square feet. More than half the supply targeted the Downtown Core submarket.
- Roughly 2.4 million square feet of space is expected to be delivered by year's end. The Exchange at 1800 Owens and the Park Tower at Transbay led the pipeline, with both projects exceeding 750,000 square feet.

VACANCY AND RENT:

50 basis point decrease in vacancy Y-O-Y

- Net absorption soared past 3.8 million square feet, contracting vacancy to 6.6 percent. Last year, vacancy fell 100 basis points on net absorption of 2.9 million square feet.

5.0% increase in asking rents Y-O-Y

- The average asking rent advanced 5.0 percent to $66.11 per square foot, underpinned by a 6.3 percent rise in the Downtown North submarket.

SALES TRENDS

Pricing Edges Higher as Buyers Scoop Up Assets in Prime Office Locations

- Dollar volume exceeded $3.6 billion over the past year as investors remain active in the Financial District, Union Square and Jackson Square, lifting prices per square foot above $700.
- The average cap rate remains in the high-4 to low-5 percent range, depending on asset quality and location.

Outlook: Well-located buildings in primary office locations such as the Financial District and Union Square will continue to draw mostly institutional buyers due to the tremendous capital appreciation currently underway.

IPA INSTITUTIONAL PROPERTY ADVISORS

1Q19 – 12-Month Period

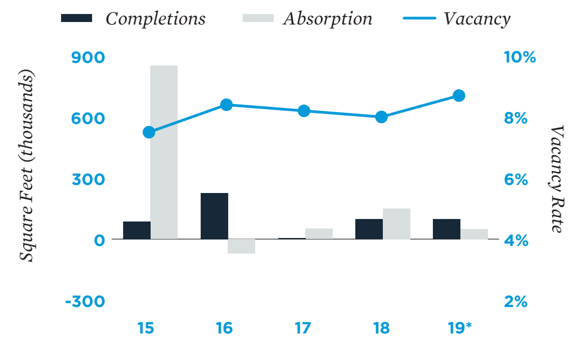
NORTH BAY

CONSTRUCTION

98,000 square feet completed Y-O-Y

- Over the past year, two office buildings were delivered, containing 98,000 square feet of new space.
- This year, one offering will be completed in Marin County. The 17,000-square-foot offering will be located at 350 Los Ranchitos Road in San Rafael, just off Highway 101.

Supply and Demand



VACANCY AND RENT:

40 basis point increase in vacancy Y-O-Y

- Net absorption was negative 50,000 square feet, lifting vacancy 40 basis points to 8.7 percent. Last year, vacancy fell 30 basis points as net absorption reached 92,000 square feet.

3.1% increase in average asking rent Y-O-Y

- A tight marketplace helped increase the average asking rent to $31.55 per square foot, 3.1 percent higher than the previous yearlong period. Last year, rents rose 8.4 percent.

Investment Highlights:

- Transaction volume dipped moderately over the past year as buyers focused on smaller Class B and C properties in Marin and Sonoma counties. Prices per square foot reached nearly $320 per square foot.
- The average cap rate remains in the low-6 percent range, offering a spectrum between the mid-5 to low-7 percent area, driven exclusively by location and asset size.

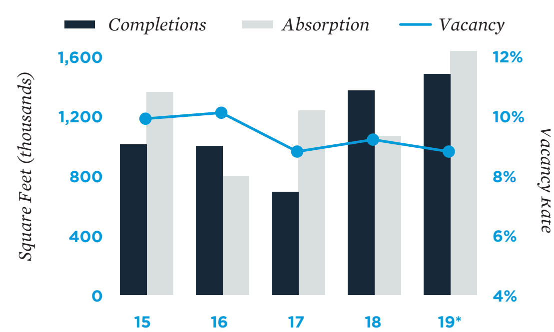
SAN MATEO COUNTY

CONSTRUCTION

1.5 million square feet completed Y-O-Y

- During the past year, developers delivered 1.5 million square feet of office space. The San Mateo South submarket received the bulk of the new supply, exceeding 1 million square feet.
- More than 1.9 million square feet of space will be completed by year's end, spearheaded by the Menlo Gateway project in Menlo Park. Additional large completions include the Merck Campus and Alexandria Technology Campus in South San Francisco.

Supply and Demand



VACANCY AND RENT:

60 basis point decrease in vacancy Y-O-Y

- Net absorption topped 1.6 million square feet, contracting vacancy by 60 basis points to 8.8 percent. Last year, vacancy fell 40 basis points.

1.1% decrease in average asking rent Y-O-Y

- The average asking rent ticked down 1.1 percent to $55.73 per square foot as a sharp decline in South San Mateo County offset gains in North and Central San Mateo County.

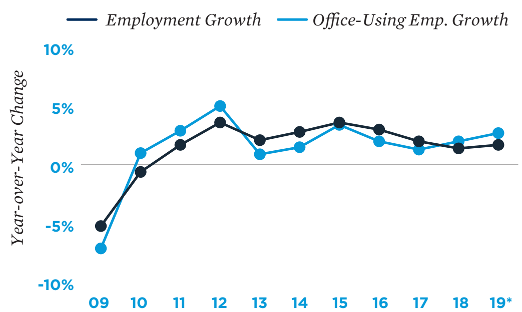
Investment Highlights:

- Deal flow was roughly in line with the previous yearlong period, while dollar volume surged above $1.7 billion as buyers pursued more Class A deals in Redwood City and San Mateo.
- The average price per square foot soared past $700, with cap rates that were broadly in the mid-4 to mid-5 percent range, depending on asset size and location considerations.

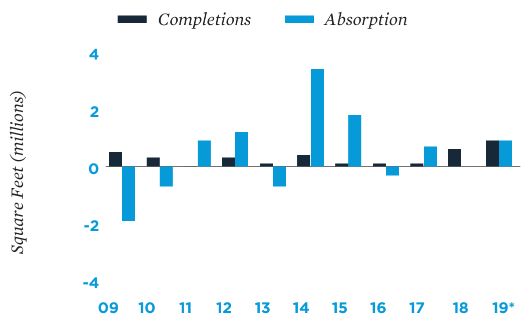
** Trailing 12 months through 1Q19*
Pricing trend sources: CoStar Group, Inc.; Real Capital Analytics

Current Trends

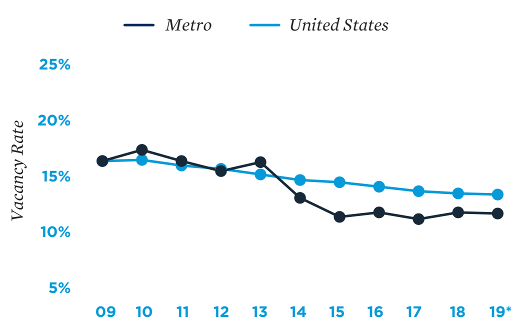
Employment Trends



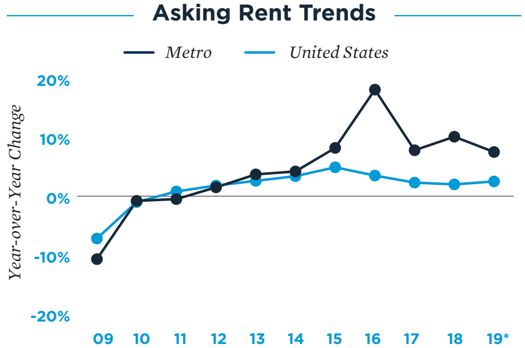
Office Completions



Vacancy Rate Trends



Asking Rent Trends



**Forecast*
Sources: Marcus & Millichap Research Services; CoStar Group, Inc.

1Q19 – 12-Month Period

EMPLOYMENT

1.5% increase in total employment Y-O-Y

- Over the past four quarters, Oakland organizations added 17,900 workers, expanding total employment by 1.5 percent. This represents a moderate slowdown from the previous yearlong period when 21,700 jobs were created.
- The professional and business services and education and healthcare sectors led overall hiring, adding 7,800 and 5,800 positions, respectively. The unemployment rate reached 3.1 percent.

CONSTRUCTION

340,000 square feet completed Y-O-Y

- During the past year, the pace of construction was broadly in line with the previous yearlong period when 364,000 square feet was delivered. Completions targeted primarily the I-80 Corridor, accounting for more than 265,000 square feet.
- More than 920,000 square feet of office space is expected to come to market this year. The largest projects, Oakland City Center and Kaiser Dublin Medical Center, account for 815,000 square feet.

VACANCY

30 basis point increase in vacancy Y-O-Y

- Net absorption of roughly 60,000 square feet was unable to halt a 30-basis-point rise in vacancy to 11.7 percent. The city of Oakland underperformed dramatically, with vacancy soaring 200 basis points to 11.3 percent.
- The 680 Corridor South and 80 Corridor vastly outperformed the metro, falling 140 basis points to 12.9 percent and 50 basis points to 7.6 percent, respectively.

RENTS:

9.4% increase in the average asking rent Y-O-Y

- The average asking rent rose 9.4 percent to $38.45 per square foot by the end of the first quarter. Growth was led by the Highway 4 submarket, vaulting 29.3 percent to $19.28 per square foot.
- The Oakland submarket remains the metro's most expensive after soaring 15.5 percent to $51.75 per square foot. The 80 Corridor posted a 19.2 percent rise to $42.92 per square foot.

Demographic Highlights

2019 Forecast Job growth

Metro **1.7%**

U.S. Average 1.3%

2019 Office-Using Job growth

Metro **2.7%**

U.S. Average 1.7%

Population Age 20-34*

Metro **21.1%**

U.S. Average 20.6%

Population of Age 25+ Percent with Bachelor Degree+**

Metro **40.8%**

U.S. Average 29.9%

Sq. Ft. Per Office Worker*

Metro **307**

U.S. Average 215

Office Square footage*

26.4% *Urban*

U.S. Average 32.0%

73.6% *Suburban*

U.S. Average 68.0%

**1Q19*
***2018*

SUBMARKET TRENDS

Lowest Vacancy Rates 1Q19

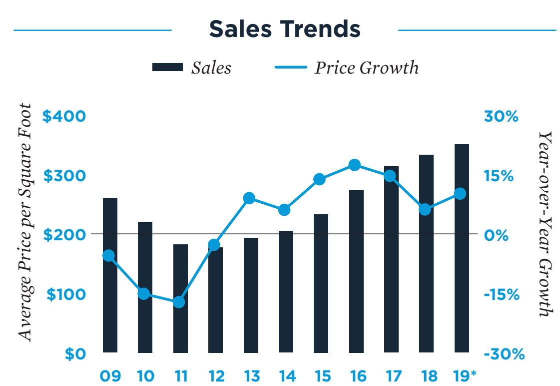
Submarket	Vacancy Rate	Y-O-Y Basis Point Change	Average Asking Rent	Y-O-Y % Change
Highway 4	7.1%	160	$19.28	29.3%
80 Corridor	7.6%	-50	$42.92	19.2%
880 Corridor	9.9%	20	$30.15	20.6%
Oakland (City)	11.3%	200	$51.75	15.5%
680 Corridor South	12.9%	-140	$31.03	-5.3%
680 Corridor North	15.3%	40	$35.51	3.5%
Overall Metro	**11.7%**	**30**	**$38.45**	**9.4%**

SALES TRENDS

Class A and B Deals Boost Pricing as Investors Prize Large Urban Assets in Core

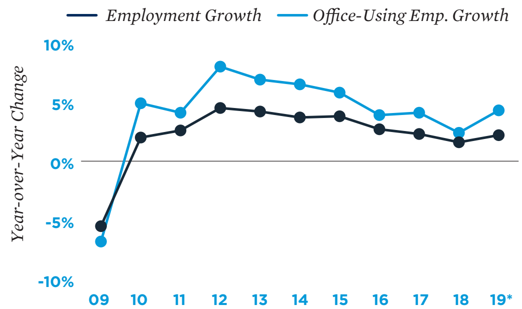
- Deal flow contracted moderately as dollar volume surged above $2.4 billion over the past year, spurred by transactions for properties in Oakland, Emeryville and Berkeley.
- Overall, cap rates ticked lower into the mid-5 percent range, lifting prices per square foot to roughly $350. Assets in the urban core lifted to nearly $500 per square foot.

Outlook: A large spread between San Francisco and Oakland prices will draw more investors seeking relatively higher cap rates and entry prices that allow for a more diverse investment strategy.

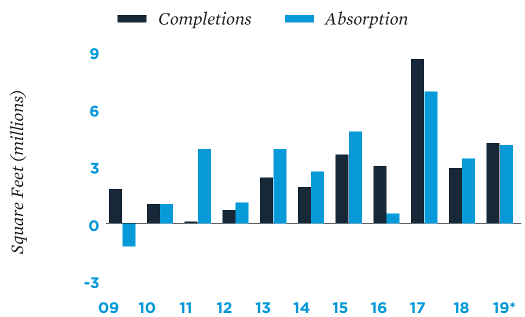


** Trailing 12 months through 1Q19*
Pricing trend sources: CoStar Group, Inc.; Real Capital Analytics

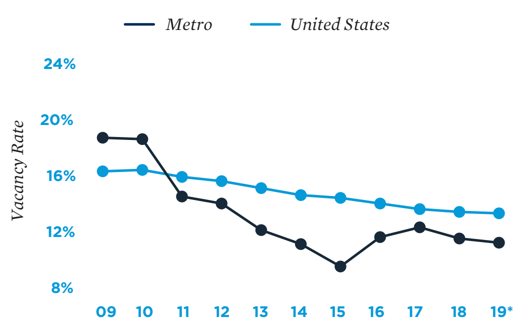
Employment Trends



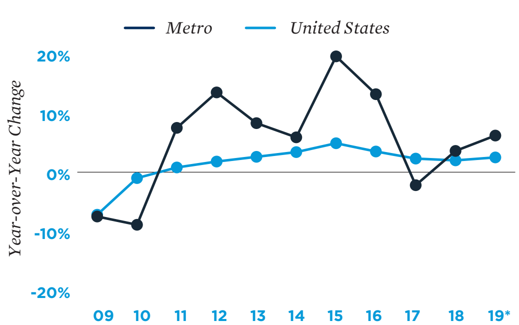
Office Completions



Vacancy Rate Trends



Asking Rent Trends



*Forecast
Sources: Marcus & Millichap Research Services; CoStar Group, Inc.

1Q19 – 12-Month Period

EMPLOYMENT

2.4% increase in total employment Y-O-Y

- During the past four quarters, San Jose organizations added 27,200 workers, boosting total employment by 2.4 percent. This represents a modest acceleration from the previous yearlong period when 19,000 jobs were created.
- Job growth was broad-based, being led by the information technology and manufacturing sectors, which added more than 7,500 positions each.

CONSTRUCTION

575,000 square feet completed Y-O-Y

- Over the past year, developers dramatically contracted the pace of construction from the previous year when 10.5 million square feet of office space was completed.
- Roughly 4.2 million square feet is slated for delivery by year's end. The pipeline will be led by the new Google headquarters in Mountain View and Moffett Towers in Sunnyvale. Combined, these projects account for a quarter of the space expected this year.

VACANCY

200 basis point decrease in vacancy Y-O-Y

- A much slower pace of construction prompted a 200-basis-point decline in vacancy to 11.4 percent over the past year. Net absorption exceeded 2.8 million square feet, nearly five times the deliveries over the same time frame.
- The Santa Clara submarket posted the strongest performance over the past year as vacancy fell 640 basis points to 15.7 percent as net absorption reached 1.2 million square feet.

RENTS:

3.0% increase in the average asking rent Y-O-Y

- The average asking rent rose 3 percent over the past 12 months, lifting prices per square foot to $53.52. The Palo Alto submarket added 2.3 percent to a metro-high $79.56 per square foot.
- The South San Jose and Downtown San Jose submarkets outperformed the metro, tacking on 22.9 percent to $38.78 per square foot and 8.1 percent to $46.45 per square foot, respectively. Both submarkets offer more affordable office space relative to the market.

Demographic Highlights

2019 Forecast Job growth

Metro **2.2%**

U.S. Average 1.3%

2019 Office-Using Job growth

Metro **4.3%**

U.S. Average 1.7%

Population Age 20-34*

Metro **22.1%**

U.S. Average 20.6%

Population of Age 25+ Percent with Bachelor Degree+**

Metro **47.5%**

U.S. Average 29.9%

Sq. Ft. Per Office Worker*

Metro **276**

U.S. Average 215

Office Square footage*

11.1% *Urban*

U.S. Average 32.0%

88.9% *Suburban*

U.S. Average 68.0%

**1Q19*
***2018*

SUBMARKET TRENDS

Lowest Vacancy Rates 1Q19

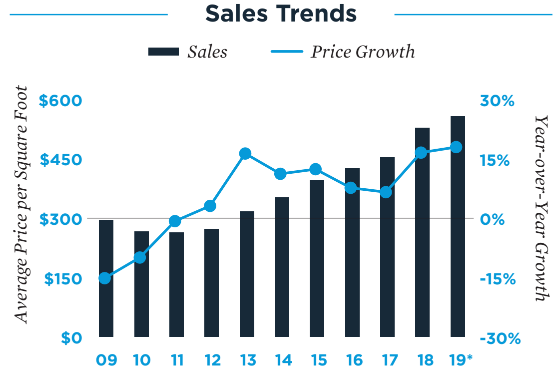
Submarket	Vacancy Rate	Y-O-Y Basis Point Change	Average Asking Rent	Y-O-Y % Change
Morgan Hill/Gilroy	2.3%	-120	$19.41	-9.8%
Mountain View/Los Altos	5.2%	-120	$77.52	3.0%
Sunnyvale/Cupertino	5.9%	-30	$70.95	1.3%
South San Jose	7.0%	210	$38.78	22.9%
Milpitas	8.5%	-320	$22.73	0.6%
Downtown San Jose	10.4%	-310	$46.45	8.1%
Palo Alto	13.1%	220	$79.56	2.3%
Santa Clara	15.7%	-640	$38.73	-0.4%
Campbell/Los Gatos	16.6%	360	$44.13	2.6%
North San Jose	20.6%	-520	$37.37	-0.2%
Overall Metro	**11.4%**	**-200**	**$53.52**	**3.0%**

SALES TRENDS

Tech Giant Deals Power Soaring Asset Values; Investors Position in Growth Submarkets

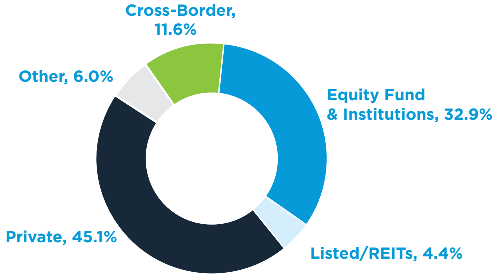
- Fueled by transactions by Facebook and Google for their respective campuses and additional buildings for expansion, prices vaulted nearly 17.9 percent to $556 per square foot.
- The average cap rate dipped roughly 20 basis points to 5 percent, with a wide range between the mid-4 and mid-6 percent area.

Outlook: Deal flow has begun to shift more toward San Jose and Santa Clara, where asset pricing is moderately below the metro average. This provides investors with upside optionality as firms seek out more affordable office space in the metro.

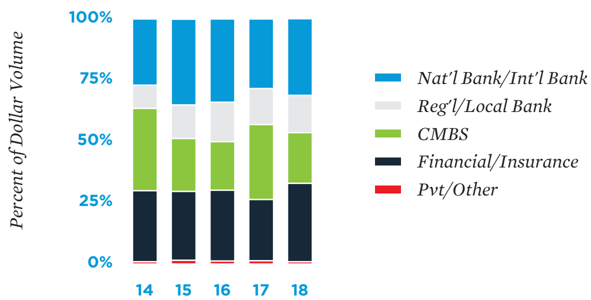


** Trailing 12 months through 1Q19*
Pricing trend sources: CoStar Group, Inc.; Real Capital Analytics

1Q19* Office Acquisitions By Buyer Type



Office Mortgage Originations By Lender



** Trailing 12 months through 1Q19*

Include sales $2.5 million and greater

Sources: CoStar Group, Inc.; Real Capital Analytics

Capital Markets

By DAVID G. SHILLINGTON, President, Marcus & Millichap Capital Corporation

- **Ongoing trade concerns weigh on growth outlook; Fed plots next steps.** Amid rising trade tensions between the U.S. and China and slowing global growth, the outlook has turned more cautious. Market volatility, along with a flight to safety trade, has flattened the yield curve dramatically, with the 10-Year Treasury trading below 2.2 percent. This has pushed the broader yield curve into inversion, a closely watched precursor to a potential recession. Meanwhile, many measures of the domestic economy remain buoyant, including continued job and wage growth, historically low unemployment and muted inflationary pressure. These conditions have prompted a dichotomy, with Federal Reserve officials signaling more accommodative policies. The impending end of quantitative tightening in September, coupled with potential cuts to the Fed funds rate in the second half of the year, highlight the shift in Fed policy. As a result, long-term interest rates are likely to remain subdued, with Fed policy leaning toward accommodation.

- **Conservative underwriting balances abundant marketplace liquidity.** While debt availability for office assets remains widely available from a wide range of sources including local, regional and national banks and insurance companies, sentiment surrounding the health of the economy has fallen somewhat in recent months. Lenders remain broadly cautious in underwriting, with loan-to-value (LTV) ratios typically in the 55 to 70 percent range, depending on the borrower, asset and location. The conservative approach has filtered into a focus on proven property results, with much less willingness to lend against pro forma rents. This has prompted investors to turn toward short-term mezzanine debt and bridge loans to cover capital improvements, while seeking long-term solutions once returns have been solidified. Construction origination remains muted, with lenders focusing on core locations with proven demand.

National Office and Industrial Group

Alan L. Pontius
Senior Vice President, National Director | IPA Office and Industrial Group
Tel: (415) 963-3000 | apontius@ipausa.com

For information on national office trends, contact:
John Chang
Senior Vice President, National Director | Research Services
Tel: (602) 707-9700 | john.chang@ipausa.com

Price: $250

Sources: IPA Research Services; Bureau of Labor Statistics; CoStar Group, Inc.; Experian; Moody's Analytics; Real Capital Analytics; TWR/Dodge Pipeline; U.S. Census Bureau