ECONOMIC IMPACT
The U.S. tech industry is rapidly transforming communities across cities nationwide. The sector is a major force in the national economy, now ranking third of all major industries in gross domestic product at 10.2% of economic output (Figure 1). The tech workforce now mainly consists of Information Technology (IT), Telecommunications, and Internet-related employment; however, there is increasingly more overlap with many other industries. Internet-powered platforms are transforming global trade and consumption and will continue to have a considerable impact on office-using employment. The exchange of goods and services and production methods in health care, energy, media, hospitality, and retail businesses will continue to be disrupted. In top U.S. tech markets, business activity has boomed, driving outsized appreciation in overall household wealth, as well as commercial real estate asset values.

FIGURE 1: Tech a Large Driver in the U.S. Economy

Source: CompTia, Moody’s Analytics, Clarion Partners Investment Research, Q1 2019. Note: Primary components of the tech workforce are: Information Technology (IT) & Custom Software Services, R&D, Testing, & Engineering Services, Telecommunications & Internet Services, Tech Manufacturing, and packaged Software. There are varying definitions of the tech sector; the CompTia analysis includes 50 NAICS codes beyond the standard U.S. Bureau of Economic Analysis industry definition.

The recent outperformance of the S&P 500 tech subsector underscores the strength of the industry and has helped drive the ongoing surge of private investment into the sector. Over the past decade, total venture capital (VC) investment in the U.S. has soared, accelerating to a record high of $132.1 billion in 2018, largely driven by tech-related VC. Eight markets have captured an outsized share: the San Francisco Bay Area, New York, Boston, Los Angeles, Seattle, Washington, D.C., San Diego, and Austin (Figure 2).

FIGURE 2: Accelerating Venture Capital Investment: More Pronounced in Primary Tech Markets

Source: CB Insights, PwC, Q1 2019. Notes: 1) Market level data is based on total VC investment. 2) SF Bay Area includes San Jose and Franciscoca.

THE TECH EFFECT
Over the past decade, high-tech services as a percentage of office-using jobs has risen rapidly, now at almost 30% (Figure 3). Professional & business and financial services are still dominant, but they have been trending downward. Going forward, traditional financial services, health care, energy, manufacturing, transportation & warehousing, and education will be influenced more and more by FinTech, biotechnology, new media, artificial intelligence, and advanced industries. Consequently, in 2018 the tech sector dominated much of recent leasing, at 27% of recent activity (Figure 4). It also accounted for about 60% of the 9,487 total VC deals completed. This has also spurred greater real estate expansion activity.
Recent high-tech services job growth trends have largely mirrored top markets for VC investment, led by San Francisco, San Jose, New York, Boston, and Seattle. Overall, the Bay Area has the largest and fastest growing tech employment base. Outside of the eight primary tech hubs, Dallas, Atlanta, Chicago, and Denver also reported large gains in the past ten years (Figure 5). The top five markets forecasted to have the highest job growth through 2030 are New York, Washington, D.C., Austin, and Houston, with a few mid-size cities like Denver, Orlando, and Raleigh not far behind. All of these are much less costly relative to the Bay Area.

Amongst highly educated professionals, the strong desire to reside and work in the primary tech markets is due to the tremendous earning potential at many companies within the industry. Over the past decade, median household incomes in these areas have risen greatly above the U.S. average. Nationally, the median wage in tech is now 92% higher than that across all industries. Given the significantly higher income levels in the top tech hubs, the benefits to GDP per capita have been extraordinary in these areas across the industry.

THE SURGE IN COMMERCIAL & RESIDENTIAL REAL ESTATE

Commercial and residential real estate prices have surged to new levels in the leading tech hubs. Across the U.S., the markets with the largest VC investment and tech company presence, are increasingly expensive. There is a growing price differential between the average office and apartment rent across markets (Figure 6). The higher-cost markets are mainly: San Francisco, San Jose, L.A., San Diego, NYC, and Boston, while slightly lower-cost markets are now Seattle, Washington, D.C., and Austin, although, these may be shifting.

- Effective office rents are now highest in the Bay Area, commanding a premium well-above the U.S. average. Housing costs (both rental and for sale) have increased greatly in San Francisco and San Jose. The median home price in the Bay Area is now reported to be over $1 million.
- Outside of California, Manhattan, Seattle, and Boston have the highest for-sale housing costs (Figure 7). Over the past decade, the rate of growth in Austin-area median home values has exceeded that of the greater NYC metro area.
- On a relative basis, the cost of living in Los Angeles, Seattle, Washington, D.C., and Austin is 20% to 40% less than the San Francisco Bay Area.
Adjacency to the Big Tech Companies: A Key Driver of Growth

In the past decade, much of the tech community explosion has been connected to the activities of the big tech companies – Amazon, Apple, Google, Facebook, and Microsoft. These companies continue to drive considerable merger and acquisition activity and grow their real estate footprint.

Amazon
Seattle, the overflow of Amazon’s ever-expanding headquarters has continued in Seattle’s downtown, South Lake Union (SLU) district, and suburbs. Other high-growth tech companies have likewise set up shop to take advantage of the area’s deep talent pool and at a considerable cost savings relative to Northern California. Both Facebook and Google have offices downtown, and Apple and Salesforce just announced openings there as well. Boeing and T-Mobile are also large occupiers, as well as retail giants Costco, Starbucks, and Target.

Crystal City, Amazon’s second headquarters (HQ2) branded as “National Landing” is expected to create at least 25,000 jobs over the next decade and benefit the surrounding Washington, D.C., metro area. The plan will resemble an urban campus and comprise upwards of 6 million SF of office space by the mid-2030s. The plan also contains funding for a $1 billion Virginia Tech Innovation Campus to be built in nearby Alexandria. More collaboration between U.S. defense and cybersecurity and federal administration is anticipated.

Apple
Cupertino & Austin, Apple’s $5 billion headquarters, “Apple Park,” is a new tech landmark tucked into suburban California. The building is referred to as the “spaceship” and is located an hour south of San Francisco. Apple also owns or leases approximately 1.7 million SF of office space in Austin and employs roughly 6,200 people. It also plans to make a $1 billion investment in a new campus, not far from its existing campus in the northwest submarket, to initially house 5,000 new employees, with room to grow to 15,000 and make it the area’s largest private employer. The final project will contain 50 acres of open space and run completely on renewable energy. Other big tech companies in or near Austin’s “Silicon Hills” are Dell, Samsung, IBM, Oracle, Indeed, Amazon, and Facebook.

High-Street Retail
In the face of the retail apocalypse, Apple’s nearly 400 brick and mortar stores are thriving and consistently top the rankings for highest sales per square foot of all store types. Many stores are designed to resemble town squares encouraging foot traffic. Furthermore, the Apple store is proven to improve the sales productivity of other nearby stores.

Google
Hudson Square, Jersey City, & Mountain View, CA. Google is rapidly expanding its real estate empire and is now growing faster outside of the Bay Area. In 2018, Google invested $9 billion in projects, and in 2019, it plans to make another $13 billion investment in data centers and offices across the U.S., with major expansions in 14 states. Its largest headquarters, or assemblage of buildings, is now at 111 8th Ave in New York City, where there are 7,000 employees. In addition, the company has committed $1 billion to create a 1.7-million-square-foot campus called “Google Hudson Square,” along with a $2.4 billion acquisition in Chelsea Market, a block west, not far from Manhattan’s West Village neighborhood, in total enabling it to double its staff in the NYC metro area within a decade. This vast presence along New York City’s West Side/Hudson River has also benefitted multifamily and office demand in Jersey City, as well as Hudson Yards and the Upper West Side.

Facebook
San Francisco Bay Area. Facebook’s Bay Area office footprint is now one of the largest in the region at about 6 million SF, with about 1.8 million SF footprint in the city. While its headquarters are in Menlo Park, where most of its employees work, in recent years, it has expanded offices in Fremont, Mountain View, Sunnyvale and downtown San Francisco. In 2018, Facebook inked San Francisco’s largest deal of the year, taking all 755,000 SF of office space at Park Tower at Transbay.

New York City. In 2019, Facebook announced it is negotiating to take 1 million SF or more in Hudson Yards in a deal that would firmly establish the city’s fast-growing technology sector in the emerging West Side neighborhood.

Microsoft
Microsoft continues to occupy more space in the greater Redmond/Bellevue area. The company is currently investing billions of dollars into almost 3 million SF of new workspace at its existing 72-acre campus in Redmond, a suburb just east of Seattle. This is part of a multiyear campus modernization project announced in 2017, which will create new office space, public amenities, and infrastructure. Microsoft has acquired over 200 companies with many locations throughout the U.S.
OTHER HIGH-PERFORMING TECH CLUSTERS

Silicon Beach, Los Angeles: SoCal A Cheaper Alternative to NorCal

The L.A. area now has the third-largest tech workforce on the West Coast. Tech companies have flocked to the city to take advantage of rents that are lower relative to other major tech hubs in Northern California. Companies have congregated in Silicon Beach — a nickname for the areas of Santa Monica, Venice, Marina del Rey, Playa Vista, El Segundo, and Culver City. The city’s tech employment increased 14.6% between 2016 and 2017, with many of the biggest names in technology — Facebook, Google, Apple, Amazon, Netflix, Spotify, and SpaceX — having opened or announced plans to open new offices. The 100 largest tech companies in the city saw a 24% increase in hiring last year. The ongoing convergence of traditional media and digital tech has led to new, highly lucrative employment in the area. Furthermore, the tech scene has had a positive impact on entertainment and aerospace. Korean Town, Long Beach, Silver Lake and Echo Park, neighborhoods that may be attractive to millennials as places to live and play, are among the places creative tech companies are locating.

Brooklyn’s Growing Innovation Economy

Brooklyn has emerged as one of the nation’s leaders in the innovation economy, driven by the borough’s growth in tech start-ups, creative companies, and next-generation manufacturers. Of the major tech hubs in the nation, Brooklyn’s start-up growth rate since 2008 was second only to San Francisco’s and exceeded that of New York City, Philadelphia, Los Angeles, and Chicago. On its own, the borough would be the fourth-largest U.S. city. Nearby, Long Island City and Roosevelt Island are also taking off.

Life Science & Biotech Hubs: Health Care Technology Will Continue to Boom

Boston, East Cambridge, San Francisco & San Diego: More synergy is expected between the tech and health care treatment and service industry. Boston/Cambridge, South San Francisco, and San Diego are currently the largest life science and biotech hubs, and these will continue to draw top investment dollars. Central New Jersey and the Research Triangle in Raleigh-Durham are also significant players likely to grow. We recommend investments in state-of-the-art medical office buildings (MOBs), specialty lab space, and outpatient care facilities.

Traditional & Alternative Energy Clusters Will Benefit More Ahead

Houston, Dallas, & Denver: The largest existing energy hubs will increasingly benefit from new technologies in renewable energy. Clean energy practices, such as solar panel production and use, will grow in importance.

CONCLUSION: CRE OPPORTUNITIES IN TECH-DRIVEN MARKETS

America’s top tech markets will continue to offer a strong story for institutional investment. Over the short and long term, we expect the investments in these markets to generally outperform, as they have in recent years (Figure 8). The recent underperformance of NYC and D.C. is largely attributed to these markets’ high exposure to financial services and government, which have lagged in this expansion.

FIGURE 8: Total Return Comparison: Top 9 Tech Markets vs. Overall NPI

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At the same time, Clarion Partners believes high-tech America is reaching an inflection point. Going forward, there are likely to be emerging tech hubs, mainly in secondary markets with other large and established industries, that will capture much of new tech-related job growth. We anticipate more broad-based growth by market, as the increased cost of living in traditional areas increases in importance as millennials age. At the same time, the many new innovations within tech, such as 3D printing, cloud technology, next-generation genomics, renewable energy, and robotics, will spill over into the financial services, trade, transportation & warehousing, oil and gas, and health care industries. We recommend acquiring premier core and build-to-core office, multifamily, industrial, and mixed-use assets in established tech industry clusters and select emerging hubs.

2 Ibid.
4 PitchBook. Q1, 2019. Note: Total deals data includes equity investment into start-up companies by an angel investor/group, seed fund, venture capital firm, corporate venture firm, and corporate investor/ Investments received as part of an accelerator program are excluded.
5 Note: Tech venture capital includes Software, Media, IT Hardware, HC Services & Systems, & HC Devices & Supplies.
6 Moody’s Analytics. Q1, 2019.
7 PitchBook. Q1, 2019. Note: The Venture Capital Monitor Report includes all traditional VC investments (including angels/seed); excluding venture rounds tracked as accelerator/incubator, as well as prior round types including crowdfunding. Only investments made directly by VCs, incubators/accelerators and angels are counted.
8 Ibid.
11 Moody’s Analytics. Q1, 2019.
20 Ibid.
21 Ibid.
22 Ibid.

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