



Data Centers in the COVID Age

March 2021

HEITMAN

A REAL ESTATE INVESTMENT MANAGEMENT FIRM

Agenda

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About Heitman

Data Centers 101

Demand Drivers

Market Conditions

Opportunities & Risks

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Heitman is a Real Estate Specialist

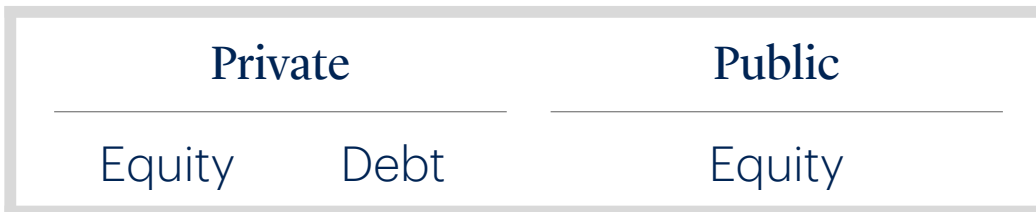
HEITMAN

55+ years

Investing on behalf of clients with an exclusive focus on real estate

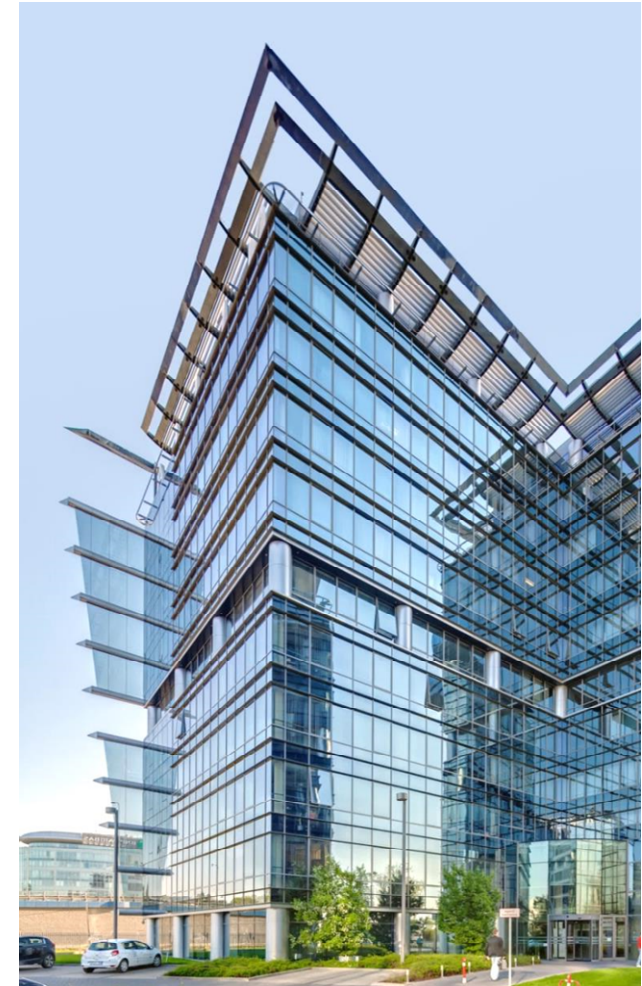
\$43.4 billion

managed across three complementary business units



As of December 31, 2020

Image is illustrative and subject to change. Image depicts actual Heitman investment.



Data Centers 101: What is a data center?

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Retail/Colocation

- Many tenants
- Shared environment, little tenant control
- More value-add services (e.g. on-site IT staff)
- Smaller leases (under 2 MW)
- Higher rents
- Short-term leases (2 to 3 years)

Wholesale

- Few tenants
- Dedicated space with tenant control (e.g. security)
- Less service-oriented
- Larger leases (2 to 10+ MW)
- Lower rents
- Long-term leases (up to 10 to 15 years)

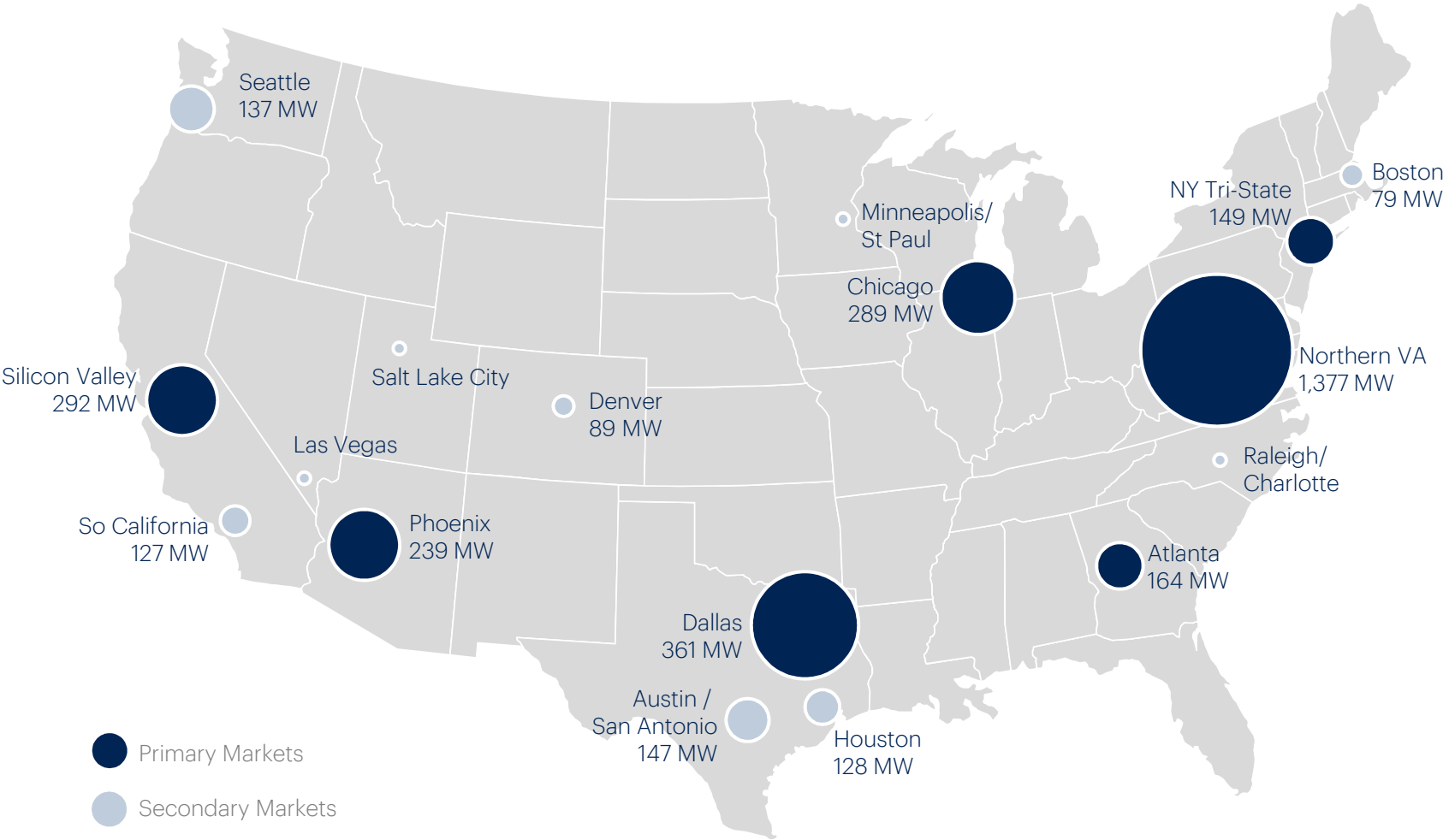
Enterprise

Network dense facilities

Powered-Base Buildings (PBBs)

Turn-Key Facilities (TKFs)

Data Centers 101: Markets



Source: CBRE; Heitman Research

Data Centers 101: Key Players

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REITs



Private Companies



Hyperscale Users



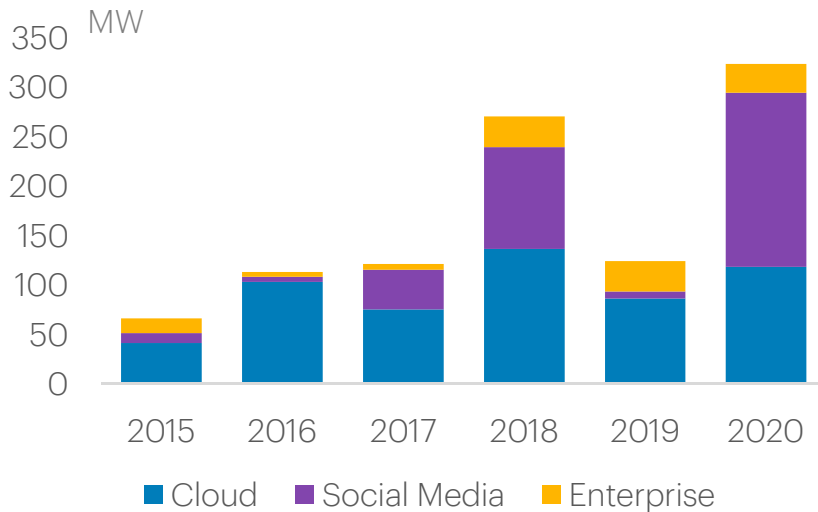
Data Center Demand

Cloud, social media drove demand in 2020

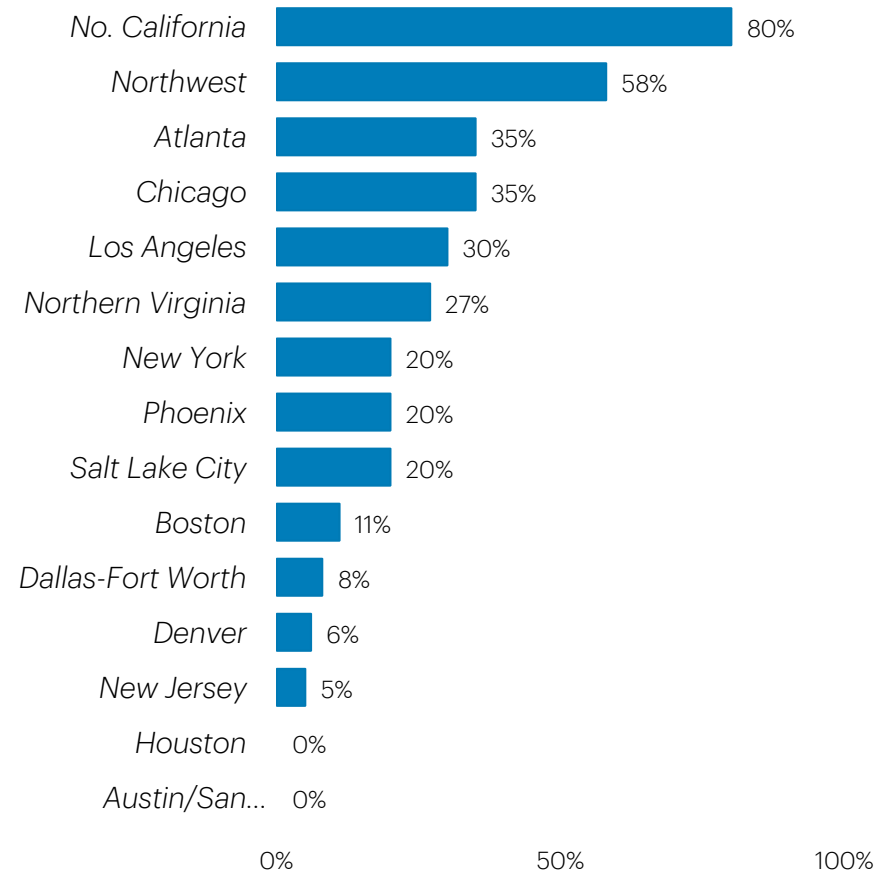
Enterprise demand slowed early in the pandemic but is recovering

Outlook is cloudy, Federal gov't early in transition

**DATA CENTER LEASING
NORTHERN VIRGINIA 2015 - 2020**



**CLOUD AS A PERCENT OF DEMAND
H1 2020**



Source: JLL; Heitman Research

hulu

prime video



NETFLIX

zoom

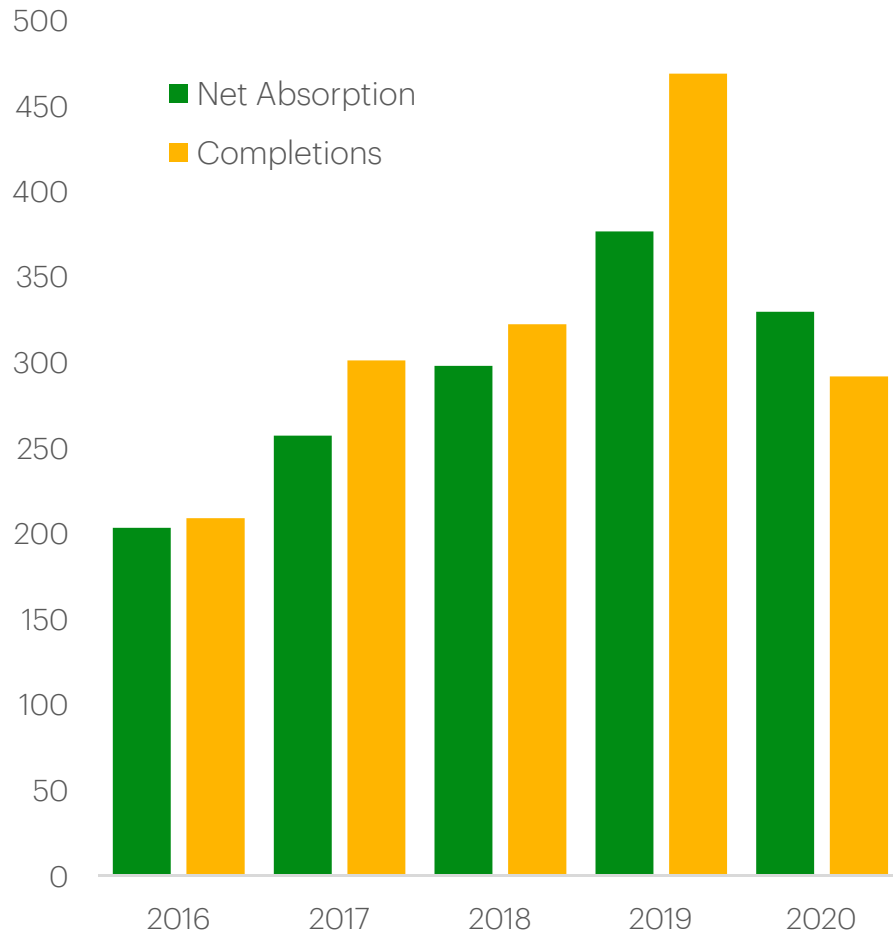
Cisco webex



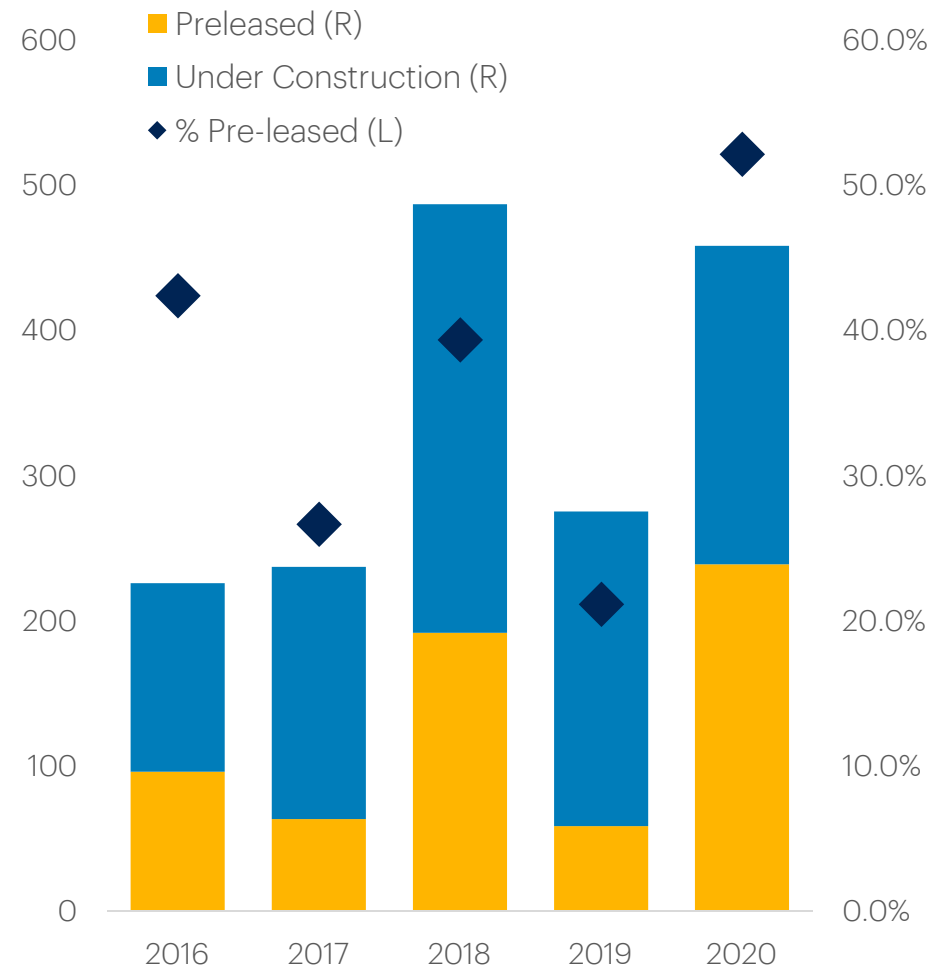


Supply growth slowed in 2020 but will pick up again in 2021

**NET ABSORPTION VERSUS COMPLETIONS
PRIMARY MARKETS 2016-2020**



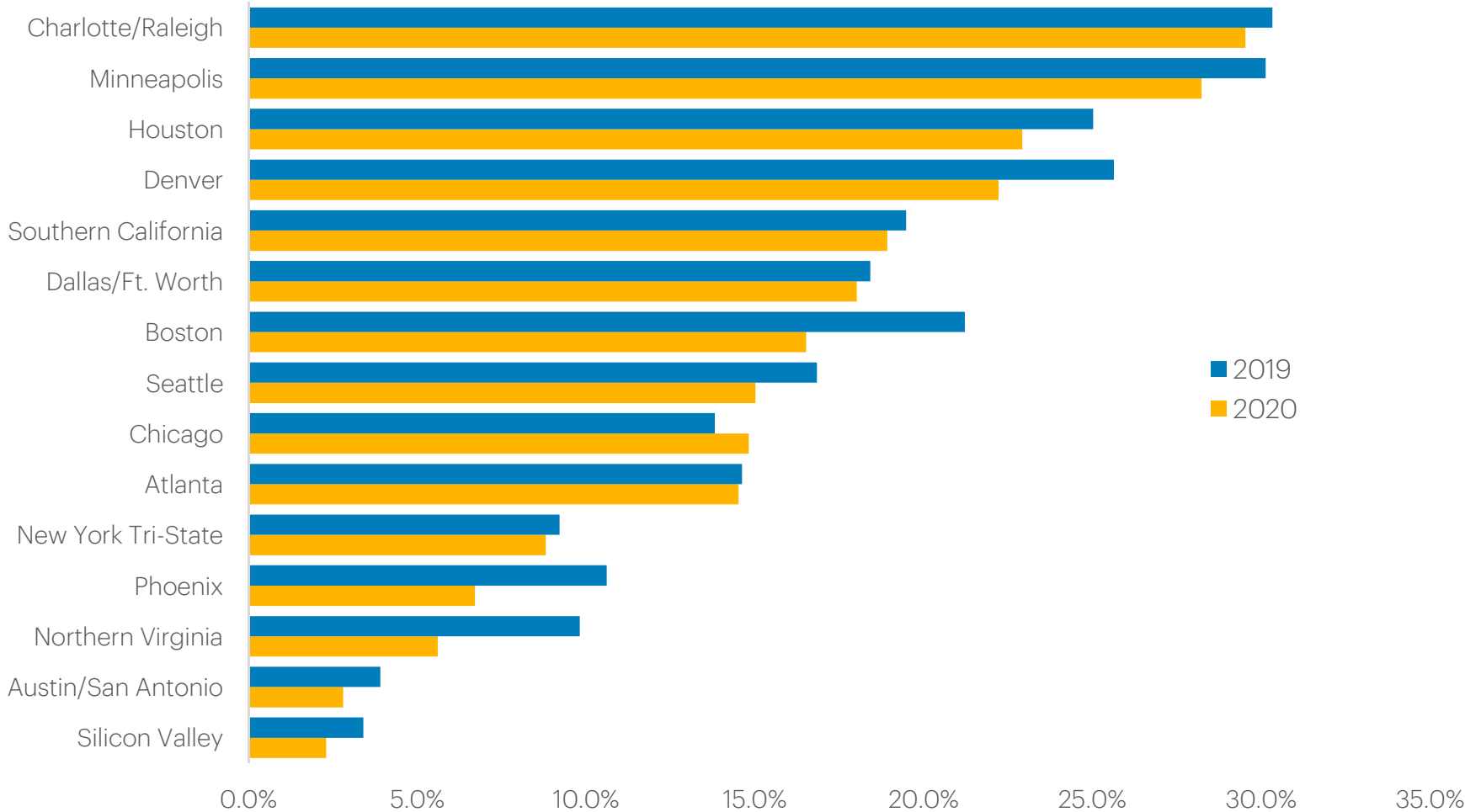
**CONSTRUCTION PIPELINE
PRIMARY MARKETS 2016-2020**



Source: CBRE; Heitman Research

Strong demand matched with supply in most markets

WHOLESALE DATA CENTER VACANCY US 2019-2020



Source: CBRE; Heitman Research

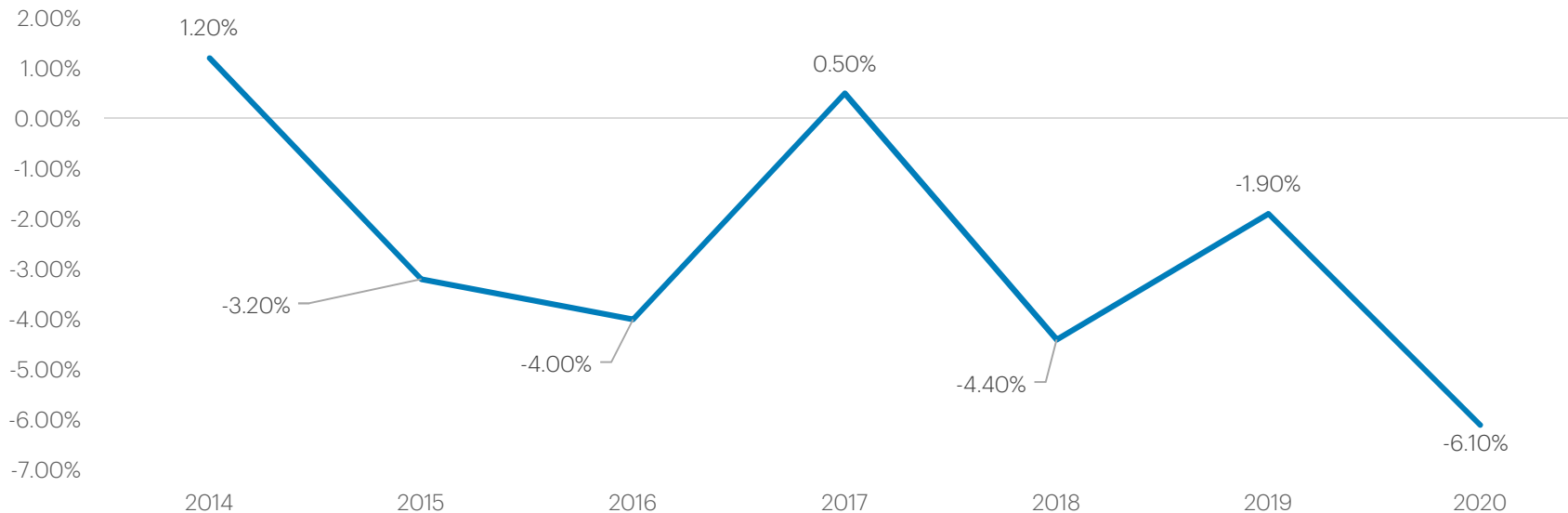
Rent Declines to Stabilize?

Rents have been on decline for years

Driven by supply, leverage of hyperscale users, changing building specifications

May be bottoming along with construction costs

**WHOLESALE DATA CENTER RENT GROWTH
PRIMARY MARKETS 2014-2020**



Source: CBRE; Heitman Research

Source: CBRE

Technological Change & Innovation

- Moore's Law
- Quantum computing

Tenant Concentration

- High exposure to tech sector
- Hyperscale strategy shifts

Overbuilding



Investment Considerations

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Relatively small sector with significant investor interest

Partnering with a strong operator is essential

The limited number of qualified operators already have capital lined up

Metrics vary significantly by product & location, making generalizations difficult

SELECT 2020 DATA CENTER TRANSACTIONS

Buyer	Seller	Date	Market	SF	Sale Price	Price PSF	Comments
MapleTree	Digital Realty	Jan 2020	Aurora, CO	381,387	\$97,420,000	\$255	Flexential leases 171,289 sf 6.63% cap
Landmark Dividend	Paypal	Feb 2020	Phoenix, AZ	134,856	\$122,000,000	\$905	Partial Sale/Leaseback - 7% cap
Digital Realty	Clise Properties	Feb 2020	Seattle, WA	400,000	\$305,000,000	\$763	5.7 % cap, Exp. Ownership from 49%
Alliance Consolidated	MVTC, LLC	Jun 2020	Marietta, GA	35,908	\$5,950,000	\$166	Sagenet 100% -15yr. 7.5% cap
T5 Data Centers	Apple	Oct 2020	Newark, CA	128,566	\$60,000,000	\$467	Former Facebook - 17MW
Blackstone	COPT/GI	Nov 2020	Ashburn, VA	1,300,000	\$293,000,000	\$225	6 NNN Powered Base Shells
Harrison St / 1547	Alco Investment	Dec 2020	Portland, OR	302,262	\$326,000,000	\$1,079	Carrier Hotel