Introduction to Medical Office Real Estate

Pantheon invests in essential real estate sectors that benefit from secular demand drivers and offer strong risk-adjusted returns regardless of economic environment. This paper is designed to introduce the medical office real estate ("MOB") sector broadly, explain the inherent dynamics that differentiate it from other property types and highlight elements of Pantheon's strategy to invest in the sector.

Highlights:

- MOBs are essential to the tenants and communities they serve and remain undersupplied to meet the needs of a changing delivery model that prioritizes value- and convenience-based care in outpatient settings.
- Pantheon believes that small-format (<25,000 sq. ft.) MOBs, often triple-net leased to one or two tenants providing specialized treatment services, either in "retail" locations (i.e., more accessible to the patients) or in conjunction with a nearby larger hospital's outpatient services, have the potential to offer an attractive yield spread to where larger, multi-tenant MOB assets are currently trading.
- Additionally, smaller-format MOBs remain fragmented and may often be overlooked by public and private institutional investors; Pantheon believes that that market segment offers the opportunity to secure accretive financing, generate strong/predictable current yield, and benefit from portfolio exit optionality.
- Pantheon believes that as a result of secular tailwinds supporting demand for outpatient healthcare and the sector's defensive nature (lowest peak-to-trough declines in occupancy and NOI growth of all major real estate sectors during both the GFC and COVID pandemic), the medical office sector will experience continued institutional capital inflows and compression in cap rates to levels consistent with other established core property sectors.

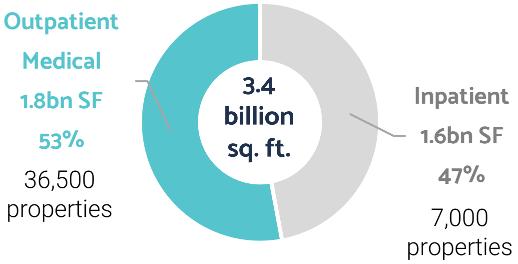
Pantheon opinion. There is no guarantee these trends will continue or that the investment thesis will be achieved.

1. Overview of Medical Office Real Estate

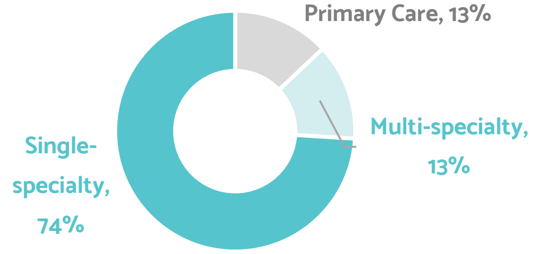
Medical office buildings play a vital role in the U.S. healthcare system and represent a large, diverse investable universe

- Medical office buildings are leased to tenants providing outpatient healthcare services; located either on a hospital campus or in conveniently accessible retail / commercial locations ('off-campus')
- Tenants include hospital / health systems, physician-owned practices, and other publicly- and privately-owned specialty care providers.
- Properties can be leased to a single tenant providing one or more different kinds of care or to multiple tenants providing different kinds of care in the same building.
- The U.S. healthcare delivery model continues to shift toward a value-based care approach, which aims to control system-wide costs by incentivizing care that can prevent / delay the onset of serious conditions requiring more costly hospitalization (i.e., regular visits to GP and specialists); the shifting compensation model is contributing to strong growth in outpatient care.

Medical Real Estate By Type (by SF) [1]



MOB Tenant Uses (REIT Portfolios)[2]



	Outpatient	Inpatient
		
Tenant Uses	Primary care, specialty clinics, outpatient surgery	Acute care hospitals, extended stay / rehabilitation clinics (i.e., occupational therapy, behavioral health)
Tenant Types	For-profit and not-for-profit health systems, physicians' groups, specialty providers (i.e., dialysis, blood plasma, cancer treatment)	For-profit and not-for-profit health systems, rehab operators, govt.
Tenant Credit Profile	Diverse, with most institutional investors focused on investment grade or large PE-backed tenants	Largely investment grade or govt., some non-rated health systems and operators
Typical Lease Term in Years (Initial / Renewal)	Single-tenant: 10 / 5-7 (NNN or NN) Multi-tenant: 5-10 / 5-7 (gross, NN, NNN)	Largely single-tenant w/ long-term leases 15+ years
Landlord Capex	Single-tenant: low due to NNN / less turnover Multi-tenant: higher due to shorter leases, common areas	Low due to long-term / NNN leases, no common areas

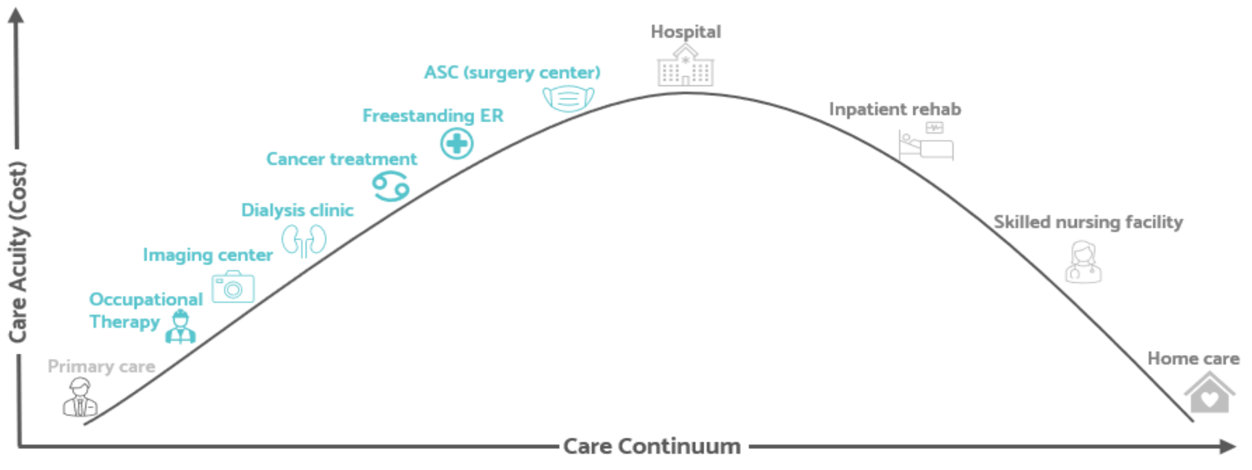
[1]Source: JLL; Revista – as of Q1'2023. [2]Source: Evercore - 2022.

1. Overview of Medical Office Real Estate (continued)

MOBs are predominantly leased to tenants providing higher-acuity, specialty care, requiring tenants to invest significant upfront capital in their spaces for infrastructure upgrades, patient areas, and installation of equipment; tenant upfront expenditure acts as a disincentive for tenant relocation and contributes to high retention rates vs. other commercial property types.

- Pantheon has recently been able to acquire well-performing, tenanted properties at a discount to their replacement cost.[1]
- Well-performing tenants often have little incentive to move to newly constructed properties that require higher rents to make a return on an inflated costs basis.

MOB Use Cases[2]



Estimated Buildout Costs[3]

	**Dialysis Clinics**	$275/sf + land and base building	• Upgraded water / sewer lines, mechanical systems and electrical • Installation of specialized water filtration system and dialysis equipment
	**Physician's Offices**	$355/sf + land and base building	• Subdivided with examination rooms, waiting areas and office space • Upgraded IT systems, especially given growth of telehealth and new in-office treatments
	**Moderate Intensity Uses**	$455/sf + land and base building	• Baseline costs of a physician's office + features to support a specialty focus (i.e., high-density floorplates for heavy equipment) • Examples: wound care clinics (hyperbaric chamber), imaging centers (radiology rooms)
	**High Intensity Uses**	$655/sf + land and base building	• Baseline costs of a physician's office, plus features to support a specialty focus (high ceilings for equipment, backup generators, enhanced HVAC) • Examples: surgery centers and cancer treatment facilities

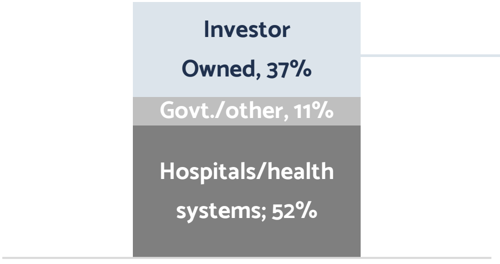
[1]There is no guarantee that these trends will continue. [2]Source: JLL, Pantheon. [3]Source: JLL; Revista – as of Q1'2023.

1. Overview of Medical Office Real Estate (continued)

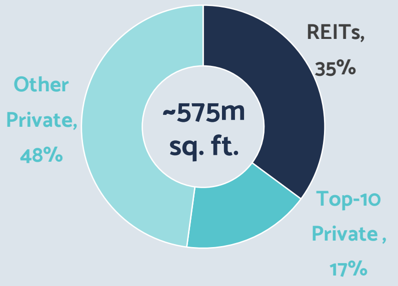
Despite strong inflows from institutional investors over the last decade, MOB ownership remains fragmented, with end-users owning over 60% of all MOBs[1]

- As hospitals / health systems face higher operating costs and credit markets tighten, Pantheon expects a growing number of sale-leaseback transactions in coming years from operators seeking liquidity through the monetization of underlying real estate portfolios.[2]
  - Sale-leaseback transactions can provide long-term leases backed by strong credit, often requiring minimal landlord capital expenditures.
- Of the 37% of MOBs owned by investors, public REITs and private investors account for 35% and 65% ownership, respectively.[1]
  - The top-10 private investors account for only 17% of investor-owned MOBs, with smaller and non-institutional private investors accounting for 48% of all investor-owned MOBs, providing a significant runway for further consolidation.[1,3]

MOB Ownership[1]



Investor-Owned MOB[1,4]



MOB REIT Ownership Snapshot[4]

- The top-5 REIT owners of MOB include diversified healthcare and 'pure-play' MOB REITs – these REITs tend to target larger, multi-tenant MOBs given their large market capitalizations and requirement for investment scale.[5]
- GMRE and CHCT are examples of smaller healthcare REITs that target small-format MOBs, evidencing institutional demand for Pantheon's target property type.[5]

	% of Portfolio - MOB	MOB Property Count	MOB Ownership (sq. ft.)	Avg. Property Size (sq. ft.)	Occupancy	WALT	Tenancy Profile	% On / Off Campus	Q1'23 - S/S NOI Growth
Top-5 MOB REIT Owners - Avg.	58%	395	115.0m	58k	92%	6.4 yrs	70% health systems	67% / 33%	2.4%
Global Medical REIT (NYSE: GMRE)	75%	165	3.7m	22k	97%	6.0 yrs	<25% IG credit	n/a	2.1%
Community Healthcare Trust (NYSE: CHCT)	69%	149	2.7m	18k	n/a	n/a	n/a	n/a	n/a
Pantheon Target Portfolio	**100%**	**-**	**-**	**<25k**	**95-100%**	**6.0+ yrs**	**90%+ IG credit**	**~30% / 70%**	**2.0%+**

[1]Source: JLL, Revista, Real Capital Analytics – as of Q1'2023. [2]There is no guarantee that these trends will continue. [3]Pantheon opinion [4]Excludes MOBs owned by hospitals / health systems and govt. / other non-private owners. [5]Source: Public information as of Q1'2023. Top-5 REIT MOB owners include HR, PEAK, WELL, VTR, DOC.

2. Small-Format MOB

Pantheon believes small-format MOBs represent an attractive market segment, with an opportunity to acquire properties leased to specialty providers with strong credit, but at higher cap rates vs. larger / multi-tenant properties, and achieve a portfolio premium at exit.[1]

- Small-format MOB characterized by properties <25,000 sq. ft., primarily single-tenant (sometimes 2-3 tenants); usually NNN-leased to health systems and specialty care providers (i.e., dialysis, imaging, cardiology, oncology, etc.)

- Small-format MOB market segment **benefits from the same underlying trends** and investment attributes as larger / multi-tenant MOBs, including:
  - High concentration of tenants providing higher acuity specialty care
  - Large universe of properties leased by credit-backed tenants
  - Wide availability of financing for properties leased to strong tenants

- **Small-format MOB segment presents distinct advantages/opportunities not offered in the larger MOB market segment[1]:**
  - Typical transactions involving small-format MOBs are too small for REITs / institutional buyers; as a result, **they can be acquired at higher going-in cap rates** vs. larger properties, despite similar fundamentals and risk profiles.
  - Highly fragmented ownership and prevalence of non-institutional sellers (local developers, HNW individuals, physicians) provide an opportunity to **create value through off-market or limited-marketed acquisitions**
    - Opportunity to identify shorter weighted-average lease term ("WALT") properties at **above-market cap rates**; leverage operational expertise and industry relationships to extend / renew tenant leases and achieve **WALT-premium (cap rate compression) at sale.**
  - **NNN leases** more common vs. multi-tenant, **resulting in minimal leakage from rent to distributable cash.**
  - Ongoing shift to a value-based care model has accelerated provider consolidation, with large hospital / health systems acquiring physician-owned clinics to offer 'full-spectrum' of care; landlords benefit from **credit enhancement.**


Cardiology


Dialysis


Surgery Centers (ASC's)

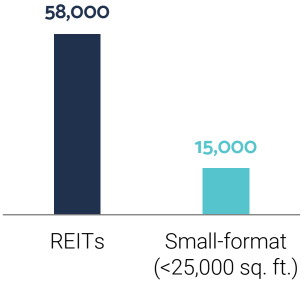

Imaging Centers


Cancer Treatment

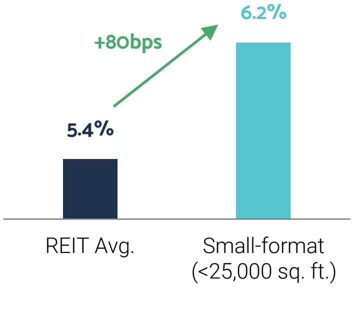

Multi-specialty clinic

Yield Premium

Avg. Property Size (Sq. Ft.)[2]

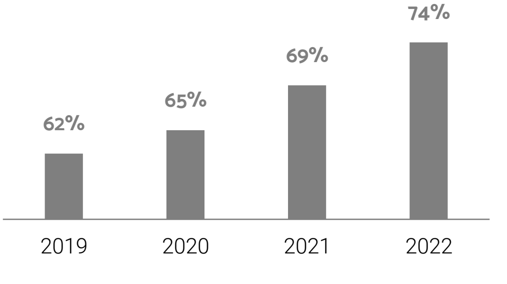


Avg. Cap Rate (2019-22)[3]



Credit Enhancement

% of Physicians Employed by Hospital System or Corporate Entity[4]



[1]Pantheon opinion. [2]Source: Public information (as of Q1'2023). Reflects avg. MOB property size for the top-5 REIT owners. [3]Source: GreenStreet; proprietary information – includes single-property transactions from 2019-2022 involving only single-tenant properties smaller than 25,000 sq. ft.; [4]Source: DOC public information / Physicians Advocacy Institute.

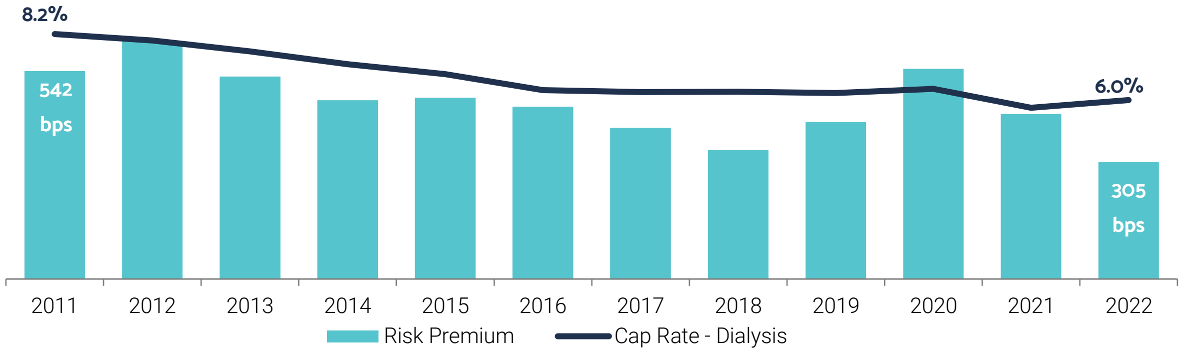
2. Small-Format MOB (continued)

Spotlight: Dialysis

Dialysis real estate, a subtype of single-tenant / small-format MOB, benefits from a unique set of favorable demand trends, strong tenant credit and highly fragmented ownership[1]

- Dialysis care is typically provided by specialty clinics located in standalone (usually off-campus) properties which are conveniently accessible for the local patient base.
- **Dialysis is a $26bn annual revenue business** in the U.S., with ~80% of funding coming from Medicare.[2]
- Dialysis market is highly concentrated with the two largest providers (Fresenius, DaVita) accounting for ~75% market share.[2]
  - Fresenius and DaVita are publicly-listed companies, with investment grade (Fresenius) and BB credit ratings (DaVita).
- Chronic Kidney Disease ('CKD') is highly correlated with rates of obesity, heart disease and diabetes, conditions which are more prevalent in poorer / rural regions of the U.S. (specifically in the South & Midwest).[3]
  - The National Institute of Health projects nearly half of U.S. adults will be obese by 2030, including nearly 1 in 4 who will have severe obesity.
- Given higher rates of CKD in rural areas, dialysis clinics are commonly located outside of major population centers / primary markets, yet **serve as critical points of care** for patients living in a radius as wide as 30-45 miles.
- Strong continued demand growth is expected given the acceleration of population aging and medical advancements extending the life expectancy of older Americans.[2]
- As a result of strong historic demand for dialysis care and increased investor appetite for outpatient MOBs, the **dialysis sub-sector has experienced a secular decline in cap rates and risk premium** (defined as cap rate minus the 10 Year U.S. Treasury yield).[4]

Dialysis Cap Rate & Risk Premium (2011-2022)[4]



- Given the specialized nature of the sector, **operational expertise provides a competitive advantage in sourcing and underwriting investment opportunities in the dialysis sector.**[1]
  - Relationships with the top dialysis companies (Fresenius, DaVita) and physician networks provide unique sourcing opportunities and insight during due diligence; ability to identify clinics with dominant local market positioning and high probability of long-term tenancy.
  - Industry relationships / reputation in market can promote 'first-call' status from sellers / brokers and access to off-market opportunities; trust in ability to conduct efficient diligence on 'short-fuse' opportunities.

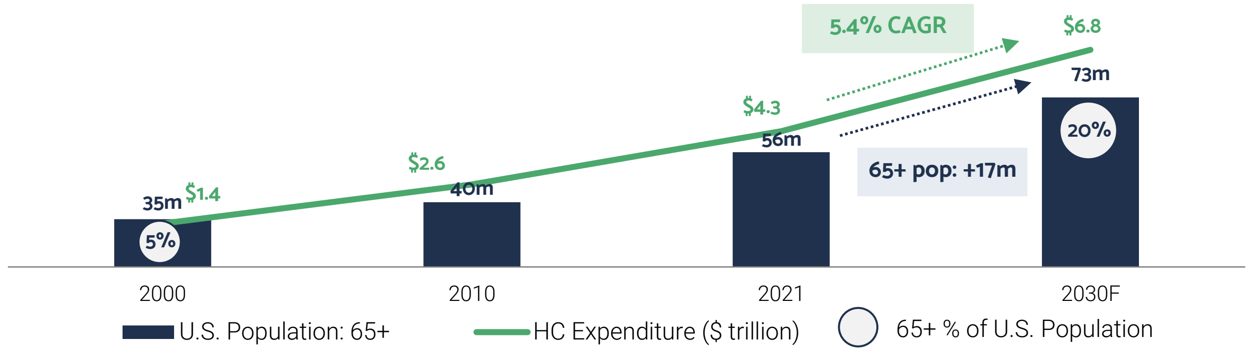
[1]Pantheon opinion. [2]Source: 2022 United States Renal Data System Annual Data Report. [3]Source: National Institute of Health.
[4]Source: Proprietary information; FRED. There is no guarantee that these trends will continue.

3. Trends Driving MOB Tenant Demand

The acceleration of U.S. population aging will continue to drive strong demand for healthcare

- The U.S. 65+ population, which as of 2021 accounted for 35% of healthcare expenditure while representing only 17% of the population, is projected to grow by ~17m by 2030 to 20% of the population.[1]
- The aging population driving an acceleration in healthcare expenditures, which is projected to grow 5%+ per year to $6.8tn by 2030 (+$2.8tn / +58% vs. 2021).[1]
  - 65+ population growth expected to drive outsized demand growth for certain outpatient specialties including orthopedics, cardiology / pulmonology and physical therapy.
- Impact of environmental pollution and global warming is also contributing to the growing need for healthcare services (estimated at $800m+ per year), suggesting worsening global warming could act as additional accelerant to healthcare spending.[2]

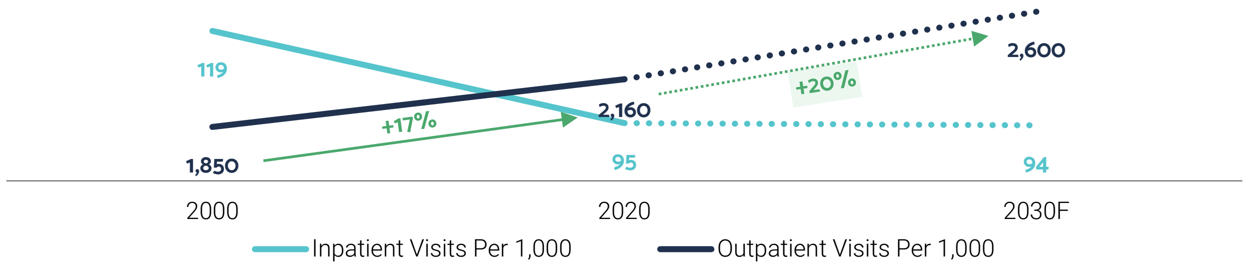
U.S. 65+ Population & Total Healthcare Expenditure[1]



The healthcare delivery model continues to shift toward outpatient care, with annual outpatient visits expected to increase by 20% by 2030.[3]

- Procedures and care which previously were done in hospitals (i.e., cardiology exams, orthopedic surgeries, lab work, physical therapy) are increasingly being shifted to outpatient settings, primarily driven by system-wide cost savings and patient convenience.
  - For example, it is estimated that orthopedic surgeries performed in outpatient settings are 30-40% less expensive vs. surgeries performed in hospitals (inpatient).[4]
- Outpatient visits overtook annual inpatient visits in the mid-2010s' and outpatient growth expected to accelerate with annual visits increasing by 20% by 2030, while inpatient visits are projected to fall by 1%.

Annual U.S. Outpatient vs. Inpatient Visits per 1,000 (2000-2030F)[3]



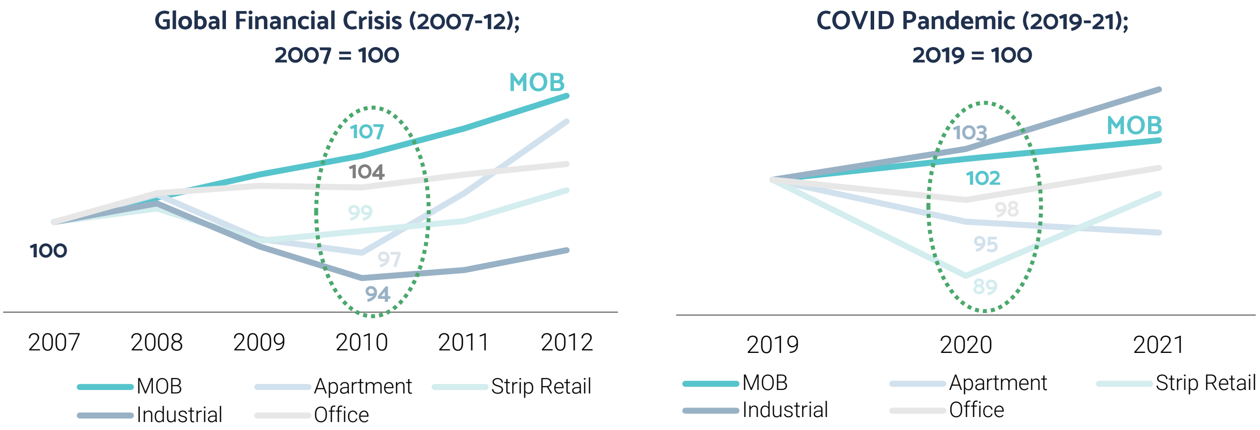
[1]Source: U.S. Census Bureau.
[2]Source: The Commonwealth Fund.
[3]Source: Kaiser Foundation.
[4]Source: BlueCross BlueShield.

4. MOB Operating Fundamentals

The MOB sector has demonstrated resilient performance through economic downturns, evidencing the essential (non-discretionary) nature of healthcare demand.[1,2]

- MOB was the only major REIT sector to maintain positive NOI growth throughout both the Global Financial Crisis ('GFC') and COVID.
- MOB REIT occupancy declined by only 2.0% and 0.1% during the GFC and COVID, respectively, vs. a 4.0% and 4.0% decline in the traditional office sector.

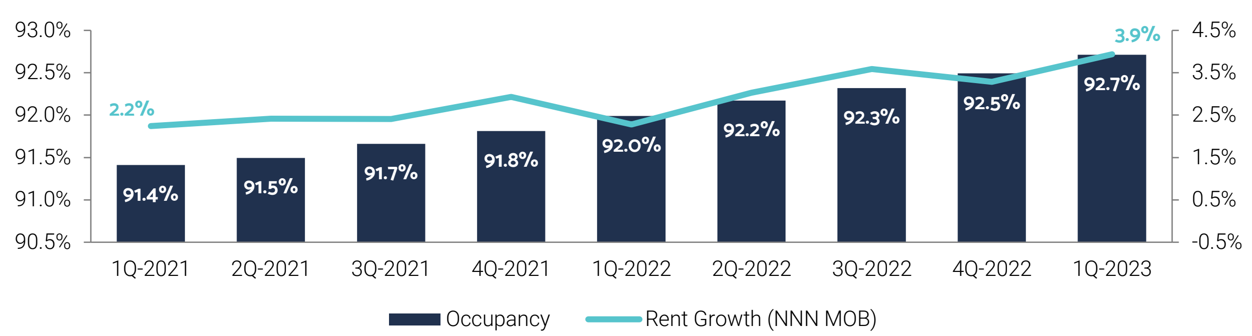
REIT NOI Growth By Sector[1]



Since the COVID pandemic, the MOB sector has demonstrated robust fundamentals, with occupancy and rent growth hitting decade-highs in the first half of 2023.[3]

- After falling only 0.1% during the pandemic, MOB sector occupancy began a steady upward trend in 2021, hitting a 10-year high of 92.7% in Q1 2023.
- Following the upward trend in occupancy, rent growth began accelerating in early 2022 rising to 3.9% in 2023, well above the trailing three-year average of 1.8%; acceleration in rent growth attributable to:
  - Strength in underlying demand, limited supply
  - Compensation for higher inflation environment; landlords have been able to negotiate for higher contractual lease escalations ranging from 2.5-3.0% (vs. 1.5-2.5% historically)

MOB Occupancy & Rent Growth (2016-2023F)[3]



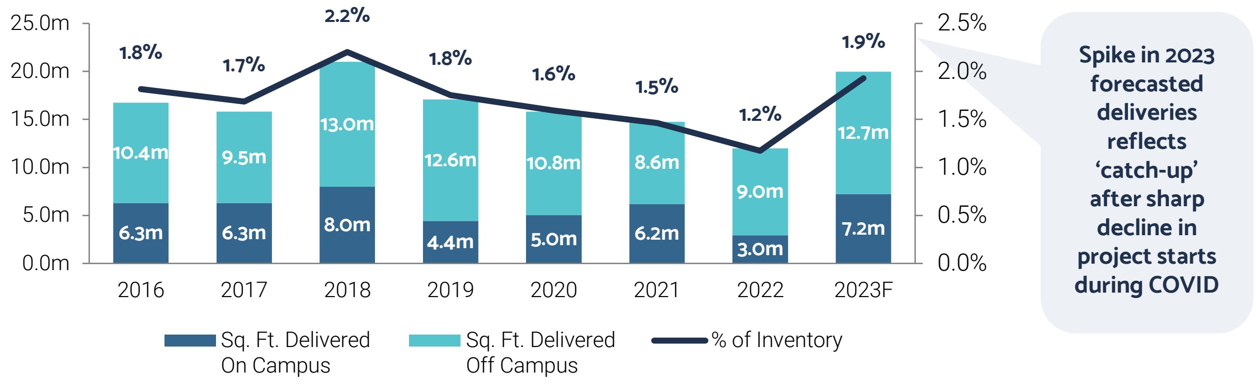
[1]Source: GreenStreet,
[2]Pantheon Opinion.
[3]Source: Revista, JLL – as of Q1'2023. There is no guarantee that these trends will continue.

5. MOB Sector Supply

MOB has experienced only moderate inventory growth and is poised to positively absorb 2023 projected deliveries despite being elevated vs. prior years due to COVID slowdown

- MOB differs from other sectors in that there is limited speculative development; majority of MOB developments are build-to-suits, either by health systems for their own use or by developers for pre-identified tenant(s).
  - State imposed Certificate of Need ('CON') requirements regulate growth of various medical specialty practices, serving as a unique barrier to supply of new MOBs.
- Moderate inventory growth coupled with limited speculative development has resulted in steady sector occupancy, which has stayed above 90% for the last 20 years.[1]
- Driven by the ongoing shift from inpatient to outpatient care, MOB developments have increasingly skewed toward off-campus locations; off-campus projects accounted for 75% of all MOBs delivered in 2022.[1]

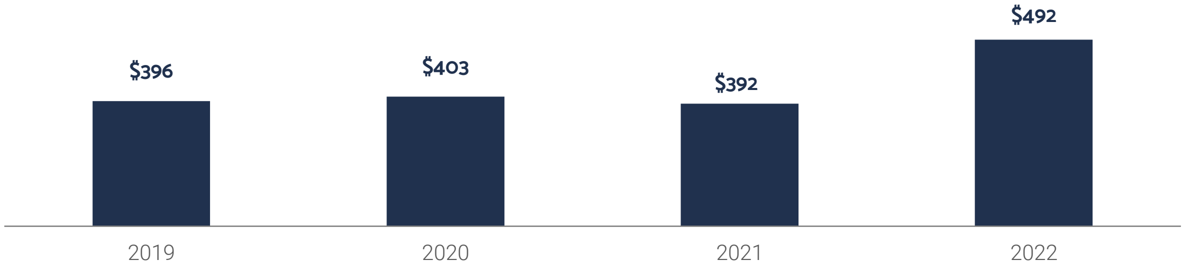
MOB Supply By Setting (2016-2023F)[1]



Surging construction costs for MOB development (up 26% in 2022) creates barrier to new supply and can make it difficult for new buildings to attract tenants given higher rent required for developers to make an appropriate return on investment.

- MOB inventory growth expected to slow meaningfully following deliveries of COVID backlog due to elevated construction costs and tighter lending conditions for construction loans.[1]
- Based on strong market fundamentals and an expected slowdown in supply, MOB demand is expected to keep pace with supply supporting continued strength in occupancy and rent growth.[2]

Average MOB Base Building Construction Cost Per Sq. Ft. (2019-2022)[1]



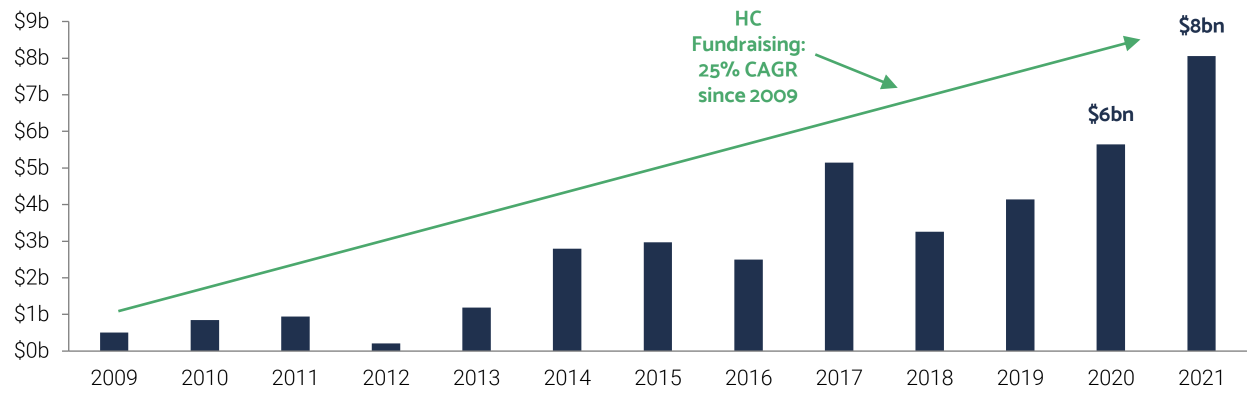
[1]Source: Revista, JLL – as of Q1'2023.
[2]Pantheon opinion.

6. MOB Investor Demand

Attracted by strong supply/demand trends and resilient performance, the MOB sector has experienced an 'institutionalization' over the past decade, with an expansion of dedicated operators and an influx of institutional capital.

- Fundraising by closed-end funds targeting healthcare **sectors expanded at 25% CAGR since 2009.**[1]
- Record fundraising in 2020-21 ($14bn raised) suggests there is a **record level of dry powder** targeting medical office and other healthcare property types; depth of capital demand is expected to drive continued growth in institutional investment volume and downward pressure on cap rates.[1,2]

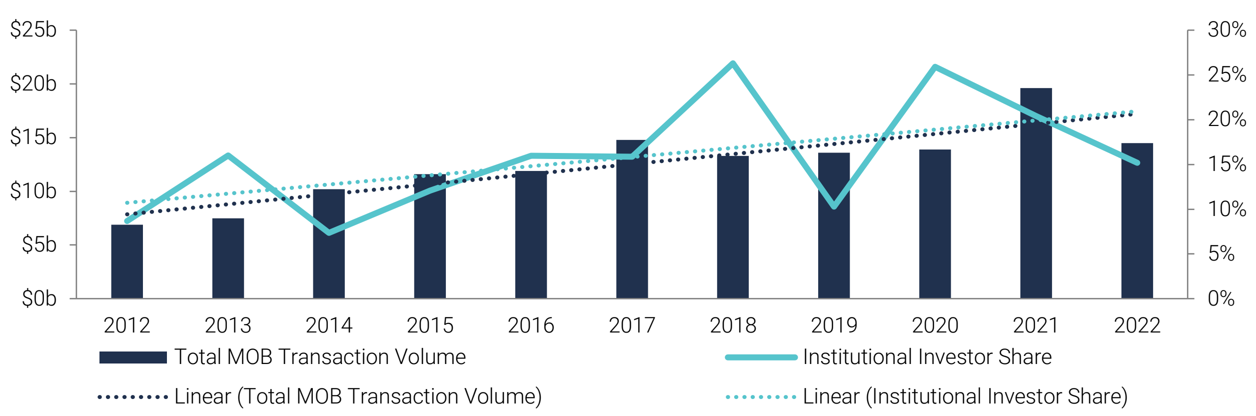
Dedicated Healthcare Capital Raising (2009-2021)[1]



MOB investment volume has grown 15% per year over the past 10 years.[3]

- Since 2012, **institutional investors investment volume has increased by 14% per year on average**, with institutional share of total investment volume increasing from an average of 13% in the first half of the decade to ~20% in the latter half.[3]

MOB Transaction Volume & Institutional Share[3]



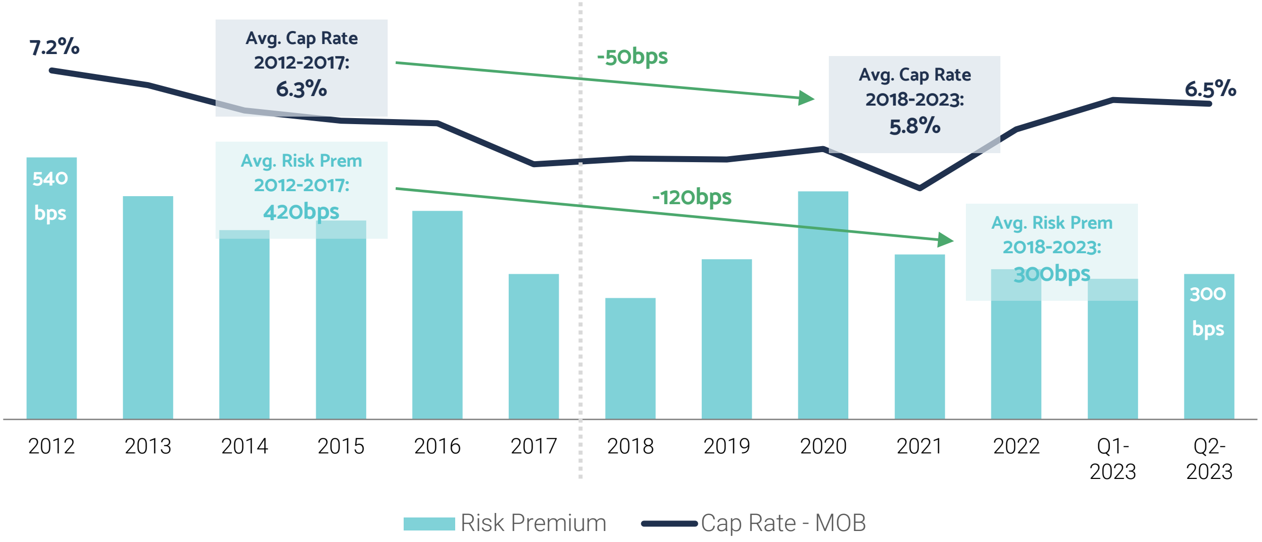
[1]Source: Real Capital Analytics; JLL.
[2]Pantheon opinion.
[3]Source: Real Capital Analytics; Transwestern.

6. MOB Investor Demand (continued)

Supported by entrenched secular trends, medical office's strong fundamentals and defensive characteristics have contributed to a steady decline in cap rates over the past decade.[1,2]

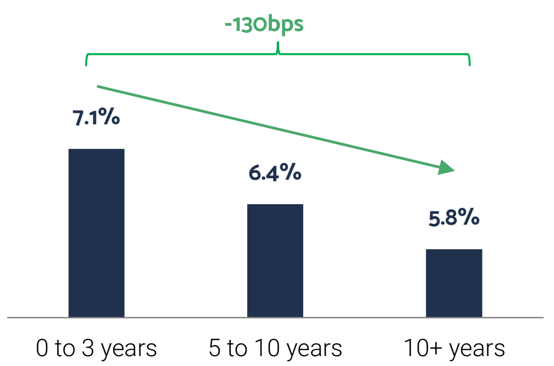
- While MOB cap rates are partially correlated with interest rates, **the risk premium has declined by 120bps over the last 5 years**, suggesting that the sector has been 're-rated' by institutions who are increasing capital inflows.
- Despite the recent rise in interest rates, the average trailing five-year (2018-23) MOB cap rate is ~50bps below the previous five-year period (2012-17).

MOB Cap Rate & Risk Premium (2012-2023)[1]

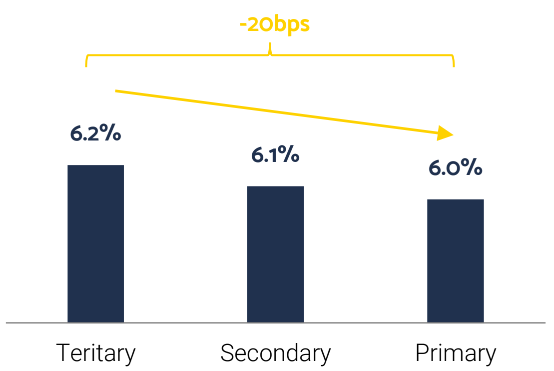


- Valuations for MOBs differs from other property types in that market size / location does not have a significant impact on cap rates, **while tenancy profile and lease term (WALT) have a more pronounced influence.**[3]

MOB Cap Rates By WALT[3]



MOB Cap Rates By Market Type[3]



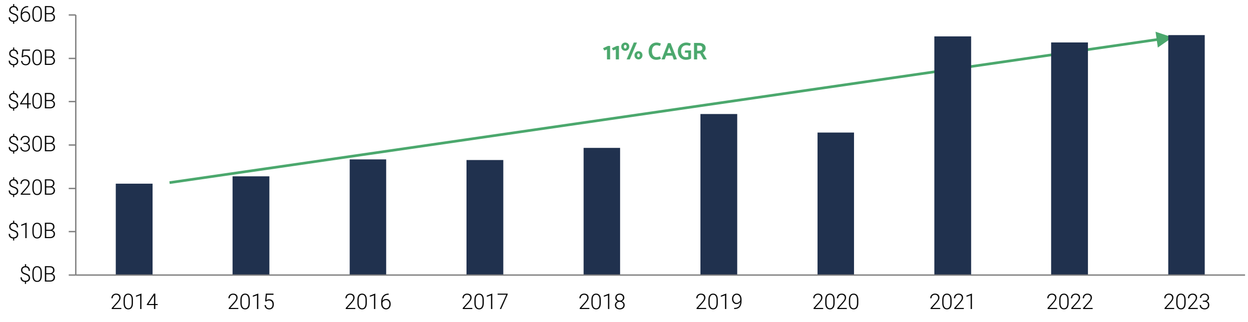
[1]Source: GreenStreet; FRED.
[2]Pantheon Opinion.
[3]Source: Proprietary information – includes single-property transactions involving small-format MOBs from 2019-2022. Market type determination based on Pantheon assessment.

6. MOB Investor Demand (continued)

The market has also seen diversified net lease ('NNN') REITs, which have experienced strong capital inflows, increasing their exposure to healthcare amidst a changing retail landscape, as evidenced through recent single-tenant healthcare portfolio acquisitions.

- Single-tenant NNN-leased MOBs share many of the same characteristics as traditional property types owned by net lease REITs (grocery stores, pharmacies, home improvement store), including long-term NNN leases, strong tenant credit and minimal landlord capex resulting in predictable income yield.
- Given favorable MOB fundamentals, resilient demand and overlap in investment criteria, net lease REITs have become increasingly active participants in transactions involving portfolios of specialty healthcare portfolios.
    - Realty Income, the largest NNN REIT by market cap, in Q1 2023 announced its acquisition of a 224-property portfolio of dental practices, and emphasized intentions to push further into consumer-centric healthcare.

NNN Lease REIT Market Capitalization[1]



[1]Source: GreenStreet – as of June 2023. Includes three REITs (NNN, O, SRC) covered by GreenStreet with market capitalization data available going back to 2014.

Disclosure 1 – case studies

These case studies are examples of specific private transactions made by Pantheon funds / clients and are designed to assist prospective investors / clients to understand Pantheon's investment management style / strategy. It should NOT be regarded as a recommendation. Pantheon makes no representation or forecast about the performance, profitability or success of such transaction. Information concerning the performance of portfolio investments is available upon request, subject to confidentiality requirements. You should not assume that future recommendations will be profitable or will equal the performance of past recommendations. The statements above reflect the views and opinions of Pantheon as of the date of the investment analysis.

A list of all investments is available upon request.

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- Funds investing in alternative assets are subject to significant fees and expenses, typically, management fees and a 20% carried interest in the net profits generated by the fund and paid to the general partner, manager or an affiliate thereof. Investments in such funds are affected by complex tax considerations.

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