

*Search Frictions and Time to Lease
Heterogeneity for Office Properties*

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Overview

- Examine liquidity in the commercial rental market
- Micro-level data on actual leases for office properties
- Option of an owner to wait, informational barriers, and search frictions are associated with the time to lease

Motivation

- Commercial markets are significant in size
- Valuation is affected by NPV of future cashflows
- Leases form the basis of such cashflows

Motivation

- Search for tenants involves frictions
- Vacancy spells may be induced
- NPV is thus affected

Motivation

- Important to learn about factors affecting vacancy spells
- Not much past work based on micro level data

Search Process

- Owners either directly or through intermediaries engage in a search process to find tenants that optimally match to the property.
- Process may comprise of frictions

Factors that may affect time to lease

- Owners' option to wait for completion with favorable lease terms due to search frictions in securing a matching tenant or a change in market demand
- Informational frictions that inhibit search
- Frictions due to physical search barriers
- Search frictions due to lower demand for specific types of space

Data

- Commercial office lease contracts from CoStar
- Merge leases with sales data to obtain property details
- Around 53,000 leases over the timeframe from 2005 to 2020

Summary Statistics

	N	Mean
Time to lease	53,281	704.75
Building Lease Ratio	53,281	0.10
Lease Term (months)	53,281	35.69
Gross Lease	53,281	0.08
Triple Net Lease	53,281	0.16
Local Owner	53,281	0.43
Individual Buyer	53,281	0.19
Occupied	53,281	0.34
Base Leased Space SF	53,281	3,516.41
Land Area SF	53,281	138,178.58
Size	53,281	140,967.93
Age	53,281	43.02
Class A	53,281	0.31
Class B	53,281	0.55
Class C	53,281	0.14
1 Star	53,281	0.00
2 Star	53,281	0.26
3 Star	53,281	0.44
4 Star	53,281	0.27
5 Star	53,281	0.02
CBD_Urban	53,281	0.47
Vacancy Rate	46,116	0.12
Net Absorption (SF)	46,116	285,511.10

Modeling Lease Hazard

- Mean and median TTL is well over a year
- Use a hazard model specification to study the underlying factors
- Models the “hazard” of lease completion

Modeling Lease Hazard

Building Lease Ratio	-0.0750** (0.0331)
Lease Term (months)	-0.0041*** (0.0003)
Gross Lease	-0.0777*** (0.0255)
Triple Net Lease	-0.0632*** (0.0145)
Local Owner	0.0260** (0.0114)
Individual Buyer	0.0399*** (0.0139)
Occupied	-0.0625*** (0.0114)
ln(Base Leased Space SF)	-0.5075*** (0.0470)
ln(Base Leased Space SF) ²	0.0276*** (0.0030)
ln(Land Area SF)	-0.1709*** (0.0586)
ln(Land Area SF) ²	0.0058** (0.0026)
ln(Size)	-0.5244*** (0.0565)
ln(Size) ²	0.0193*** (0.0025)
Age	-0.0018** (0.0008)
Age × Age	0.0000*** (0.0000)
2 Star	-0.0908 (0.0748)
3 Star	-0.1327* (0.0760)
4 Star	-0.0735 (0.0778)
5 Star	-0.0338 (0.0865)
B	-0.0158 (0.0162)
C	-0.0779*** (0.0239)
Year-Month f.e.	Yes
City f.e.	Yes
Log pseudo-likelihood	-5.23e+05
N	53,281.00

Factors associated with a longer time to lease

- Lease factors – Higher lease ratio, term
- Counterparty factors – Non-local owners, Institutional Owners
- Property factors – Occupied when marketing, larger, older, lower rating properties

Factors associated with a longer time to lease

- *Owners' option to wait for completion with favorable lease terms due to search frictions in securing a matching tenant or a change in market demand*
- Higher lease ratio - Anchor tenant that may have externalities on other spaces
- Term - Lower turnover and transaction costs
- Institutional Owners - Better balance sheet/liquidity conditions

Factors associated with a longer time to lease

- *Informational frictions that inhibit search*
- Non-local owners may have less information

Factors associated with a longer time to lease

- *Frictions due to barriers to search*
- Occupied when marketing

Factors associated with a longer time to lease

- *Search frictions due to lower demand for specific types of space*
- Larger, older, lower rating properties

Heterogeneous effects across areas

- Search frictions are enhanced across diffused markets
- Results depict that properties in suburban areas are associated with a longer time to lease

Heterogeneous effects across time

- Leases in 2020 are associated with a longer time to lease relative to 2018 and 2019
- Perhaps, COVID-19 induced search frictions

Summary

- Micro-level view on factors relating to time to lease in the commercial market
- Highlight the importance of the option to wait, informational barriers and search frictions
- Findings relevant for valuation

Questions?