Flexible workspace providers as tenants: an analysis of the rental prices in the London market

Abstract

Purpose – The covenant strength of flexible workspace (FW) providers as tenants is debatable. There is the argument that providers are risky mainly due to the very nature of their business which consists of volatile revenue streams obtained from subletting the space in membership format, paying little attention to covenants. On the other hand, there is also the argument that the presence of a provider can add vibrancy and diversity to a building, while also offering an additional amenity to existing tenants through overflow space, making flexible workspace providers desirable. This paper aims to explore this ambiguity by comparing rents paid by flexible workspace providers and other tenants within the same building in London over the period 2011 to 2021.

Design/methodology/approach – Using a dataset of 1,042 leases in London over the period of 2011 to 2021 extracted from CoStar, the rent conditions of FW providers and their peers within the same building were analysed employing a hedonic pricing model.

Findings – The results of the analysis suggest that FW providers have a negative and statistically significant effect on the effective rent in comparison to other tenants within the same building over the analysed period.

Originality – The relationship between landlords and FW providers as tenants does not have a major coverage in the literature. This analysis has the potential to identify how providers are perceived in the market and offers both academics and practitioners valuable insights.

Keywords Flexible workspaces, rent analysis, London

Article classification Research paper

1. Introduction

Flexible workspaces comprise of several different formats (e.g., coworking, serviced offices, and hybrid spaces) that have in common the capability of offering office space on an 'easy-in, easy-out' basis instead of a traditionally long and inflexible lease (IPF, 2020; Williams *et al.*, 2020). While the overall concept is not new, this alternative approach gained traction as an aftermath of the Great Financial Crisis (GFC) (Baum, 2017). Scholars tend to focus on the motives and preferences of flexible space users (Seo *et al.*, 2017; Weijs-Perrée *et al.*, 2019), coworking typologies (Spinuzzi, 2012; Bilandzic and Foth, 2013; Kojo and Nenonen, 2016; Ivaldi, 2017), and the role FWs play in local economic development (Jamal, 2018; Lorne, 2019; Mariotti, Akhavan and Matteo, 2021).

Notably, some argue that FW providers' rent arbitrage business model is a fragile one (Green, 2014; Seo *et al.*, 2017; Wheaton and Krasikov, 2019). Wheaton and Krasikov's (2019) working paper highlights that to be profitable, FW providers must charge a membership rate to their customers that covers the fixed costs they incur and the rent they must pay to the landlord, which is subject to a volatile occupancy rate. Indeed, according to Jamal's (2018) research in mid-sized cities in Ontario, Canada, most of the coworking spaces were operating on tight budgets and only 23% indicated strong financial stability. From the landlord's perspective, the fragility of the business model combined with substantial capital expenses to fit out space (Morgan Stanley, 2018; Golding, 2019; Wheaton and Krasikov, 2019) increases the risk of default. Furthermore, financial risks are also present when the provider is a Special Purpose Vehicle (SPV) (Golding, 2019) and further credit (Dittmer and D'Souza, 2020) and underwriting issues (Johnston and D'Souza, 2019) can portrait FW providers as fallible tenants that might require landlords to seek a premium in rent. Others, however, argue that FWs can capture a segment of the market (e.g., freelancers, startups, and small and medium enterprises) that would not normally be reached by a conventional lease (Green, 2014). Landlords further benefit from the presence of FWs in their buildings as such spaces can provide an additional amenity to existing tenants through overflow space (Avison Young, 2019; Kern, 2019; JLL, 2021), and their heavily fitted out space can also decrease the functional, economic or physical depreciation of the building (Chegut and Langen, 2019).

The growth of the flexible workspace market has made landlords consider strategies to incorporate such a trend in their buildings (Green, 2014). For most, this means directly leasing space to FW providers, and examples include most Regus and WeWork deals (IPF, 2020). However, landlords can also deliver flexible workspaces by themselves, or in a property company/operating company split (colloquially known as 'propco/opco'), through joint ventures or through management agreements with flexible workspace operators (Green, 2014; Avison Young, 2019; Golding, 2019; Halvitigala, Antoniades and Eves, 2019; IPF, 2020), which is akin to what it is seen in the hotel industry (Golding, 2019; IPF, 2020). The COVID-19 pandemic is said to have accelerated the trend of management agreements (JLL, 2021; Savills, 2021; Cushman & Wakefield, 2022). Indeed, according to Savills (2021), since the onset of the pandemic, 54% of the investors are more likely to consider a management agreement with operators to enter the market in the UK.

Despite the tendency towards a hotel model of management agreements between FW providers and landlords, the focus of this study is on their traditional lease relationships, the most common in the market pre-pandemic (IPF, 2020; Cushman & Wakefield, 2022). FW providers compete with conventional landlords for office tenants (Chegut and Langen, 2019) but at the same time, they are also tenants that tend to sign a relatively long lease contract (Green, 2014; Chegut and

Langen, 2019). Empirical studies investigating the outcomes of the interactions between landlords and FW provider tenants however are scarce. Using US office market data, Chegut and Langen (2019) find no significant difference in the effective rents paid by flexible workspace providers in comparison to traditional tenants in the U.S. However, the authors highlight the regional differences in their results and show that FW operators pay lower rents in New York City and Los Angeles. They speculate that the lower rental level is due to a higher number of providers in those cities without further explanation.

This study aims to further investigate whether rents paid by FW operators are systematically different from those paid by other office tenants. We particularly focus on the London office market as a case study area, as it is at the forefront of the market. Over the course of the last decade, the growth of the FW in London has been enormous. At the end of the first half of 2020, FW accounted for approximately 16 million square feet, which equates to 5.80% of total Central London office stock (Williams *et al.*, 2020). The take-up in that year reached 0.31 million square feet which is equivalent to 21%, second only to the finance and banking sector (28%), but 66% below the ten-year average of 0.915 million square feet (Elliott, 2021).

The COVID-19 outbreak has been challenging for the flexible workspace market. Across the UK the occupancy levels fell by 10% and the average desk rates decreased by 5% in 2020 (The Instant Group, 2020). As a result of the decrease in demand and the impossibility to meet their rent obligations, some flexible workspace providers decided to end their businesses or are having problems with their landlords. For example, TechHub, a coworking provider that for a decade housed London's 'Silicon Roundabout', filed for administration as the UK lockdown caused the firm to lose three-quarters of its revenues and the landlord was unwilling to negotiate (Bradshaw, 2020; Hinchliffe, 2020). Breather, a flexible workspace operator with offices in the United States, Canada, and the UK, abandoned hundreds of leases as it filed for insolvency (Silcoff, 2020) and it is being sued by multiple landlords in the U.S. (Rizzi, 2020a, 2020b). Similarly, Knotel filed for bankruptcy and is also facing multiple lawsuits from landlords (Bockmann, 2020). The pandemic has exposed the fragility of the business model highlighted by Green (2014), Seo et al. (2017), and Wheaton and Krasikov (2019), and fomented, even more, the necessity of a debate regarding the risks involved in the sector.

Despite the disruption caused by the pandemic, the perspective for the flexible workspace sector is positive according to the industry (JLL, 2021; Cushman & Wakefield, 2022). As corporations were forced to work from home during the pandemic, there is an expectation that they will broaden the usage of flexible workspaces to accommodate holistic changes in their approach to remote working (JLL, 2021). In the JLL 2021 occupier survey, 41% believed their use of flexible

workspace would increase. This, compared to a 29% found in 2020, suggests that there seems to be a bigger appetite for flexibility by corporations (JLL, 2021).

The next section of this paper is devoted to reviewing the literature in regard to rent differentiation by tenants and the reasons why FW providers might be charged more or less rents than other peers. Section 3 explains the methodology and variables used to analyse offices rents in London. Information about the sample and descriptive statistics are presented in Section 4. The results are shown in Section 5 which is followed by a discussion and conclusion in Section 6.

2. Literature review

Scholars have argued that due to the competitive nature of leasing markets, the equilibrium rent depends on the characteristics of the asset being leased, asset market conditions (Miller and Upton, 1976), and the provisions in the lease contract (McConnell and Schallheim, 1983), but is independent of lessee characteristics (Miller and Upton, 1976). In line with these arguments, rent determinants in the office market tend to focus on property and locational attributes, and ignore the characteristics of tenants (Dunse and Jones, 1998; Fuerst, McAllister and Murray, 2011; Donner and Loh, 2019; Porumb, Maier and Anghel, 2020).

Equilibrium rents in commercial real estate markets, however, could be a product of non-competitive forces due to the illiquid nature of the assets and private nature of the markets (Flath, 1980; Smith and MacDonald Wakeman, 1985). The lease transactions we observe in the markets are the outcomes of individual landlord and tenants' negotiation. In the case of rent reviews and lease renewals, negotiations are on a one-to-one basis rather than an open market basis (Crosby, Gibson, and Murdoch, 2003). If tenants are identical, the extent of a landlord's market power will determine the optimal monopoly rent (Barker, 2003). However, in reality, tenants are different, and rent determination is complex.

Previous studies show that the FWs provide access to an affordable and professional atmosphere with a range of networking activities (Spinuzzi, 2012; Fuzi, 2015; Merkel, 2015; Kojo and Nenonen, 2017; Seo *et al.*, 2017; Weijs-Perrée *et al.*, 2019), simulate learning and collaboration through the creation of a sense of community among users (Bilandzic and Foth, 2013; Capdevila, 2014; Fuzi, 2015; Merkel, 2015; Garrett, Spreitzer and Bacevice, 2017; Ivaldi, 2017; Kojo and Nenonen, 2017). FWs can also provide an additional amenity to the existing tenants through overflow space, allowing seamless expansions without further commitment (Avison Young, 2019; Kern, 2019). Therefore, FWs are attractive to a diverse set of entities, ranging from freelancers to corporations, and housing an operator is a way to capture this segment of the occupier market that would not normally be reached by a conventional lease (Green, 2014) and to add heterogeneity to the building, an important component, especially in an uncertain economic environment (Avison Young, 2019). Furthermore, the quality of the fit-out and the wide range of

amenities usually present at FWs (Weijs-Perrée *et al.*, 2019) may decrease the functional, economic or physical depreciation of the building (Chegut and Langen, 2019).

The above may explain the rationales for having FW providers as tenants in a multi-tenant office building, but it does not directly explain whether FW providers will pay different rents compared to other tenants. FW providers do tend to, however, sign relatively longer lease contracts (Green, 2014; Chegut and Langen, 2019), and the literature on rental contract length tend to agree that landlords charge long-term renters lower rent, the so-called 'tenure discount' to minimise turnover costs (Flath, 1980). Barker (2003) however, argues that a profit-maximising landlord would charge higher rents with more elastic demand (such as a new tenant), as long-term tenants are less likely to move once they have made significant investments in the location and property. Indeed, Wong and Cheung (2017) explain that occupancy discounts and premiums can both exist; discounts would happen when a landlord's search cost is high, such as when the space to let is large or the vacancy rate is high, and premiums would occur when a tenant's moving cost is high. Clapham and Gunnelin (2003) also explain that expectations about future rents cannot be directly inferred from an inspection of the lease term structure as they need to consider the effect of risk aversion and interest rate uncertainty. Empirical evidence shows both discounts and premiums upon renewal among different types of real estate and geographies. For instance, Wong and Cheung (2017)find that tenants pay a premium at rent renewal compared to those who take new leases in Hong Kong's office market. Whereas in the US housing markets, tenants were given discounts for renewals (Goodman and Kawai, 1985). Larsen and Sommervoll (2009) also document that tenure length is associated with rent reduction in the Norwegian rental housing market.

One other aspect that might trigger landlords to charge FW providers differently, is the size of the let space, which is usually larger than other tenants occupy (Chegut and Langen, 2019). Rent subsidies could be caused by economies in renting to large tenants (Pashigian and Gould, 1998), however, demand and supply conditions for large blocks of space could also lead to a lease premium because they are highly valued by large corporations and frequently are in short supply, and they are mostly found when new space is being constructed (Wheaton and Torto, 1994). Empirical evidence on the effects of the size of the let space (in square feet of lease) on rent is also varying. For example, Larsen and Sommervoll (2009) show that larger tenants pay a premium in the Norwegian rental housing market. Conversely, Pashigian and Gould (1998) reveal that anchor stores pay 72% less than non-anchor retailers. Wheaton and Torto (1994) find 7% and 35% discounts in office rent related to quantum in San Francisco and Houston respective, but such discount is not present in Denver, Washington, and Cincinnati. Pashigian and Gould (1998) argue that such a difference between discounts found in retail and office literature can be explained by the fact that while mall anchors do create externalities, namely attracting customers

to the mall and increasing the sales of other stores, office anchors do not. Retail rent literature also shows that rent discrimination is induced not only by different contractual provisions but also by the heterogeneity in tenants. Landlords charge higher rents to compensate for the higher risk associated with tenants with a higher probability of default; and reduce rents for those tenants who can generate customer traffic (Benjamin, Boyle and Sirmans, 1992).

Default is a risk associated with FW providers mentioned by many authors in both academic and grey literature for different reasons (Green, 2014; Seo *et al.*, 2017; Johnston and D'Souza, 2019; Midolo, 2019; Wheaton and Krasikov, 2019; JLL, 2021). Some argue that FW providers' rent arbitrage business model is fragile due to its premise of leasing space long-term from landlords and subletting it on short and flexible memberships for profit, which is subject to a volatile occupancy rate (Green, 2014; Seo *et al.*, 2017; Wheaton and Krasikov, 2019). An example of this mismatch is the duration of lease liabilities and income stream, as of 2019, WeWork's lease commitments averaged 15 years in the U.S., while its memberships only averaged 15 months (The We Company, 2019). From the landlord's perspective, the fragility of the business model combined with substantial capital expenses to fit out space (Morgan Stanley, 2018; Golding, 2019; Wheaton and Krasikov, 2019) and the low-margin nature of the business (Spinuzzi, 2012; Jamal, 2018; Wheaton and Krasikov, 2019), could increase the probability of default by an FW tenant.

In addition, FW leases tend to involve a Special Purpose Vehicle (SPV), a legal entity created to accomplish a well-defined and often temporary objective that protects the parent company from financial risks (Golding, 2019). If the tenant is an SPV with no other assets, then the landlord can only pursue that SPV as there will likely be no other assurance such as a deposit or corporate guarantee (Midolo, 2019). The practice, widely used by operators such as WeWork and Regus, is controversial and can lead to disputes with landlords (Midolo, 2019).

Market commentary notes that FW providers tend to negotiate 'above-market rents' (Dittmer and D'Souza, 2020). While inflated rent could increase cash flow and consequently increase the potential size of the loan, if the FW operator surrenders the space, it may be backfilled at lower market rents, contributing to a decline in the property value (Dittmer and D'Souza, 2020). Cash flow risks and default risks associated with FW providers are reflected in the underwriting of office investment. For instance, investment research company MorningStar, reports the risk factors associated with buildings that have a significant flexible workspace component, in similar ways to underwriting properties with significant single-tenant exposure while also adjusting to coworking specific aspects, such as higher tenant improvement packages and lower occupancy assumptions (Johnston and D'Souza, 2019). As reported by JLL (2021), the creditworthiness and the finance of FW providers have been the most visible concerns in the wake of the pandemic,

and as the industry evolves, landlords are integrating more clauses in case of non-performance and requiring more financial clarity from FW operations.

Empirical research investigating rent premiums/discounts associated with FW providers is scarce. Chegut and Langen (2019) examine rent conditions in six U.S. cities in order to understand if flexible workspace providers are seen as a benefit or a risk by commercial real estate owners. Using hedonic analysis, the authors find no significant difference in the effective rent providers pay in comparison to traditional tenants, which implies that providers are seen as substitutes to other tenants. However, they highlight that flexible workspace operators pay lower rents in New York City and Los Angeles, which they hypothesized to be due to a higher number of providers in those cities.

This paper builds on Chegut and Langen's (2019) work and seeks to evidence the landlord's attitude towards FW providers by comparing the rents paid by these tenants in relation to their peers in the London office market, where providers occupy a substantial footprint of the office market.

3. Methodology

Due to real estate's heterogeneous nature, hedonic analysis has been widely used in real estate since the early studies of Haas (1922) and Wallace (1926) in different sectors for different purposes. Following previous studies on the determinants of rent of offices (Capdevila, Cannaday, and Colwell, 1984; Wheaton and Torto, 1994; Dunse and Jones, 1998; Fuerst and Mcallister, 2011), this paper starts with a baseline log-linear hedonic specification presented in model (1):

$$\ln R_i = \alpha_k + \gamma_t + \beta_i X_i + \epsilon_i \quad (1)$$

Where $\ln R_i$ is the natural logarithm of the annual effective rent[1] per square foot for tenant i, X_i includes the physical attributes of the building, the physical characteristics of the unit, and lease parameters (Table I). Physical attributes of the building include, among others, age (Brennan, Cannaday, and Colwell, 1984), level of BREEAM certification awarded (Chegut, Eichholtz, and Kok, 2011) , and the number of lifts. The physical characteristics of the unit include the square footage leased and the floor of the office (Nase, van Assendelft and Remøy, 2018). The lease parameters in Model (1) include the term of the lease (Brennan, Cannaday and Colwell, 1984; Wheaton and Torto, 1994; Chegut, Eichholtz and Kok, 2011). We also include quadratic terms for variables '$Size$', '$Term$' and 'Age'.

As our study area is in central London, the use of location measures such as distance to CBD does not necessarily fully capture the locational effects concerning submarket qualities. Following Bracke, Pinchbeck, and Wyatt (2018), we include a fixed locational effect at submarket level

[1] The effective rent, as defined by CoStar, is the average rent paid over the term by a tenant adjusted downward for landlord incentives (such as free rent and moving expenses), and upward for costs that are the responsibility of the tenant (such as operating expense pass throughs).

k which is captured by α_k. We also include a fixed effect for the market conditions γ_t, represented by the year of the lease. The random error ϵ_i is the stochastic disturbance term from a normal distribution of $N(0, \sigma^2)$.

To investigate whether flexible workspace providers systematically pay a higher or lower rent, we follow Chegut and Langen's (2019) study and introduce in model (2) a dummy variable FW to distinguish FW providers ($FW = 1$) from other tenants ($FW = 0$):

$$\ln R_i = \alpha_k + \gamma_t + \beta X_i + \delta FW_i + \epsilon_i \quad (2)$$

Model (2) potentially suffers from omitted variables bias as not all rent determinants are observable. To further control the heterogeneity in locations and buildings' physical characteristics, we include fixed effect at building level (Chegut and Langen, 2019) in model (3):

$$\ln R_i = \alpha_j + \gamma_t + \beta X_i + \delta FW_i + \epsilon_i \quad (3)$$

Where α_j captures the fixed effect at individual building level. Notably, with the fixed effect at building level, the building's attributes become redundant. Therefore, variables such as BREEAM and structural measures as well as amenity-related variables are omitted in model (3).

Discussion in the grey literature (Cushman & Wakefield, 2018; CBRE, 2019) indicates that the proportion of the tenancy of a flexible workspace operator within a building might affect property values and investor sentiment. The hypothesis within rental values would be that the larger the proportion of FW providers, the more risk is undertaken by the landlords, the more likely FW providers will be charged at higher rents. To test this, in model (4) we include ten dummies that represent such proportions in increments of 10 per cent (Table I).

$$\ln R_i = \alpha_j + \gamma_t + \beta X_i + \delta FW_{\%} + \epsilon_i \quad (4)$$

The proportion is tested from $FW_{10} = 1$ if FW provider(s) occupies(y) 10% of the total floor space of a building or less, to $FW_{100} = 1$ if FW provider(s) occupies(y) between 90% and 100% of the total floor space of a building.

Following Chegut and Langen (2019), we test in model (5) the FW providers that occupy more space in the sample, namely WeWork, Regus, Landmark and The Office Space, and other FW providers to check if they have different bargaining power compared to other tenants within the same building.

$$\text{Ln } R_i = \alpha_j + \gamma_t + \beta X_i + \delta FW_{Player} + \epsilon_i \quad (5)$$

Where $FW_{WeWork} = 1$ if the flexible workspace provider is WeWork, $FW_{Regus} = 1$ if FW is Regus, $FW_{Landmark} = 1$ if FW is Landmark, $FW_{The\ Office\ Group} = 1$ if the provider is The Office Group and $FW_{Others} = 1$ if the provider is not one of the top names in the industry.

In model (6) we investigate in more detail the market conditions and lease parameters (Table I). Based on the discussion regarding rent discounts and new leases or renewals (Goodman and Kawai, 1985; Larsen and Sommervoll, 2009; Wong and Cheung, 2017), we include the lease type (New =1, Renewal = 0) and deal type (Direct=1, Assignment=0). Lease type variable is then

interacted with variables representing market conditions to see if the landlord-tenant relation (reflected in rents) changes under different market conditions. For example, $Vacancy\ Rate\ Submarket +$ and $Upmarket$. Other interaction variables are included to check if rents are systematically different for new leases amongst different sizes or lease terms. Regarding the flexible workspace tenancy, we include interaction terms with new leases, the size of the lease, and the lease length.

$$\text{Ln}\, R_i = \alpha_j + \gamma_t + \beta X_i + \delta Market\ Conditions + \theta Lease\ Parameters + \epsilon_i \quad (6)$$

In model (7) we explore the industry of the other tenants in comparison to flexible workspace providers (omitted variable) (Table I). To do so, we include a set of eleven dummies that represent the sector of the tenant, following the Global Industry Classification Standard (GICS) (MSCI, 2020). Previous studies have shown that specific industries tend to pay higher rents. For instance, Wong and Cheung (2017) found that finance, insurance, and real estate (FIRE) tenants usually pay 25% more than their counterparts, a premium that the authors argue may be due to a greater likelihood of such tenants to select offices of higher quality. Similarly, Nase, van Assendelf and Remøy (2018) found that law firms, consultancy and management, finance, and real estate pay significantly higher than the benchmark.

$$\text{Ln}\, R_i = \alpha_j + \gamma_t + \beta X_i + \mu Industries + \epsilon_i \quad (7)$$

Table I – Description of Variables

Variable	Description	Models
Size	Floor area leased in square feet	All
Size Squared	Floor area leased squared	All
Term	Lease term in years	All
Term Squared	Lease term squared	All
Age	Building age	1 and 2
Age Squared	Building age squared	1 and 2
BREEAM Good	BREEAM Good =1; others =0	1 and 2
BREEAM Excellent	BREEAM Excellent =1; others =0	1 and 2
BREEAM Outstanding	BREEAM Outstanding =1; others =0	1 and 2
Masonry	Masonry=1, others=0	1 and 2
Reinforced Concrete	Reinforced Concrete = 1, others = 0	1 and 2
24 Hour Access	24hr access = 1, no = 0	1 and 2
Property Manager	Onsite Property Manager = 1, no = 0	1 and 2
Restaurant	Restaurant = 1, no = 0	1 and 2
Lifts	Number of lifts in the building	1 and 2
Parking	Number of parking spaces in the building	1 and 2
Highest Floor	Highest floor level of the office space	All
Highest Floor Squared	Highest floor level of the office space squared	All
FW provider	FW Provider=1; others=0	2 and 3
FW10	FW occupies up to 10% of the building's NIA=1, others=0	4
FW20	FW occupies between 10% and 20% of the building's NIA=1, others=0	4
FW30	FW occupies between 20% and 30% of the building's NIA=1, others=0	4

FW40	FW occupies between 30% and 40% of the building's NIA=1, others=0	4
FW50	FW occupies between 40% and 50% of the building's NIA=1, others=0	4
FW60	FW occupies between 50% and 60% of the building's NIA=1, others=0	4
FW70	FW occupies between 60% and 70% of the building's NIA=1, others=0	4
FW80	FW occupies between 70% and 80% of the building's NIA=1, others=0	4
FW90	FW occupies between 80% and 90% of the building's NIA=1, others=0	4
FW100	FW occupies from 90% to 100% of the building's NIA=1, others=0	4
WeWork	Tenant's name is WeWork=1; otherwise=0	5
Regus	Tenant's name is Regus=1; otherwise=0	5
Landmark	Tenant's name is Landmark=1; otherwise=0	5
The Office Group	Tenant's name is The Office Group=1; otherwise=0	5
Other FW	FW provider other than top four=1; otherwise=0	5
Lease Type	New lease=1; Renewal=0	6
Deal Type	Direct=1; Assignment or sublease=0	6
Vacancy Rate Submarket^{+}	High vacancy dummy (Vacancy Rate Submarket^{+}=1 if the vacancy rate of the office submarket is higher than the sample's upper quartile; otherwise=0)	6
Size^{+}	A large area dummy (Size^{+}=1 if the leased office space is larger than the sample's upper quartile; otherwise=0)	6
Term^{+}	A-term dummy (Term^{+}=1 if the lease is longer than the sample's upper quartile; otherwise=0)	6
Upmarket	An upmarket dummy (Upmarket=1 if the lease happened in 2011, 2012, 2013, 2014 or 2015, which is when office market rents were increasing; otherwise=0)	6
Communication Services	Tenant's industry is communication services=1; otherwise=0	7
Consumer Discretionary	Tenant's industry is consumer discretionary=1; otherwise=0	7
Consumer Staples	Tenant's industry is consumer staples=1; otherwise=0	7
Energy	Tenant's industry is energy=1; otherwise=0	7
Financials	Tenant's industry is financials=1; otherwise=0	7
Health Care	Tenant's industry is health care=1; otherwise=0	7
Industrials	Tenant's industry is industrials=1; otherwise=0	7
Information Technology	Tenant's industry is information technology=1; otherwise=0	7
Materials	Tenant's industry is materials=1; otherwise=0	7
Real Estate	Tenant's industry is real estate excluding FW providers=1; otherwise=0	7

4. Data

Data were hand-collected using CoStar's comprehensive database of London's lease comparables. The dataset contains information about the names of the tenants, the address of the building, the start date, the lease length, deal type, square footage, existence of breaks and rent-free periods, effective rent, type of insurance, building characteristics, among others. To collect lease and building information of FW providers and other tenants in the same building, we first searched individual flexible workspace provider names that are commonly known in the market. While this approach worked to gather observations from well-known brands such as WeWork

and Regus, the search for smaller providers was not as prolific. To enhance the number of observations, a direct search on CoStar was performed using keywords such as 'coworking', 'serviced', 'managed', 'office', among others. This procedure allowed us to find new providers and providers with slightly different business names (e.g., Beaumont Business Centres and Beaumont Office Services). The search was limited to observations with effective rent information, as opposed to those displaying only asking or achieved rent. From an underlying sample of 15,418 office lease contracts from 2011 and 2021, the sample for this study has 1,042 observations spread in 156 multi-let buildings, from which 207 are flexible workspace providers' leases and 835 are non-providers within the same buildings.

Table II highlights the distribution of the leases across the years in the sample. As flexible workspace gains popularity after the GFC and WeWork starts operating in London in 2014, the number of FW leases in the sample goes from 1 in 2011 to 31 in 2014, reaching its peak just a year before the pandemic with 37 leases in 2019. Then a sudden drop is noticed in 2020, as a consequence of the COVID-19 pandemic, with only 2 FW leases, and 2021, with no FW leases until April of that year.

Table II – Total number of deals and FW deals per year

Year	Number of deals	Number of FW deals
2011	46	1
2012	54	5
2013	87	13
2014	151	31
2015	156	29
2016	147	27
2017	139	26
2018	136	36
2019	99	37
2020	24	2
2021	3	0
Total	**1042**	**207**

As expected, when dealing with real estate data, information was fragmented, meaning that not all observations contained information about all the parameters. For instance, while it was possible to check that 68% of the leases in the sample were full repairing and insuring, for 32% this information was unknown. The same issue happened with break clauses figures (44% had break clauses, 3% had no break clauses and for 53% of the observations this information was absent) and rent-free periods (66% had rent-free periods, 3% had no rent-free periods and for 31% there was no data available). Although such characteristics are important, since the dependent variable in this study is effective rent, adjustments regarding rent-free period and other landlord incentives were already accounted for.

Most of the providers' tenancies in the sample are located in the City, followed by Holborn, Southbank, and Mayfair. The major flexible workspace players by space leased in the sample were WeWork at 26%, IWG at 18%, Landmark at 9%, and The Office Group with the same proportion. This distribution is similar to Knight Frank's (2020) estimate, where WeWork is at 27%, IWG at 20%, The Office Group at 8%, and Landmark at 6%. Other players include Work.Life, Clarendon and BE Offices. The inclusion of such players is important both in terms of sample size and to try to establish whether big players have a stronger bargaining power compared to smaller ones.

From selected descriptive statistics in Table III, it is possible to see that FW providers on average pay less in rent compared to other tenants, however, this difference is not statistically significant. The biggest differences between providers and other tenants are the lease length, the lease size, and the building share occupied. Flexible workspace providers take, on average, about 7,000 square feet more space and their leases are more than 2 years longer than other tenants. While the average building share taken by providers is 20.16%, the portion occupied by other tenants is a lot smaller, averaging 8.21%. From descriptive statistics, the longer lease and larger space occupied by FW providers may potentially explain the difference in effective rent.

Table III – Descriptive statistics

	Flexible Workspace Provider		**Other tenants**	
	Mean	**SD**	**Mean**	**SD**
Effective rent [$/sq ft]	49.18	17.41	50.75	20.21
Lease sign date [year]	2016.30	2.08	2015.51	1.32
Lease length [years]	11.16	4.99	8.79	6.20
Lease size [sq ft]	17,798.36	18,416.23	11,076.50	15,789.87
Building share [%]	20.16%	18.51%	8.21%	9.50%
BREEAM [stars]	1.02	1.94	1.59	2.21
Building year [year]	1954.96	61.06	1957.64	56.33
Renovation year [year]	1994.93	39.11	1997.33	36.36
Highest floor occupied [floor]	4.71	4.82	6.48	7.45
Number of floors [floors]	1.91	1.51	1.27	0.85
Vacancy rate property [%]	7.19%	13.71%	7.59%	11.74%

Note: All mean differences except for effective rent, building year, renovation year, and vacancy rate property, are statistically significant.

5. Results

Table IV shows the initial results of the regression-based on models (1) and (2). Both models are controlled for temporal variation in leases, including fixed-effects at the year signed and at a submarket level.

Results from model (1) show that the effective rent decreases non-linearly as the floor area leased increases and as the building ages. On the other hand, model (1) indicates that rent increases non-linearly with lease duration, and linearly with the floor occupied by the tenant and if the building

has a BREEAM Excellent or Outstanding awards, along with the presence of lifts and 24-hour access.

Overall, 59% of variations in effective rents can be explained by the independent variables in model (1). Results in model (2) are consistent with those in model (1) once the dummy variable for FW providers is included. The negative and statistically significant coefficient of FW provider indicates that these tenants pay 6% less in annual effective rent compared to their peers.

Table IV – Regression results: Submarket and Signed Year fixed

Variables	**Model 1**	**Model 2**
Size	-5.086E-6****	-4.314E-6***
	(-3.858)	(-3.184)
Size Squared	4.282E-11****	3.781E-11****
	(3.916)	(3.403)
Term	0.009***	0.011***
	(2.809)	(3.164)
Term Squared	-8.791E-5****	-9.682E-5****
	(-3.242)	(-3.546)
Age	-0.003****	-0.003****
	(-3.642)	(-3.732)
Age Squared	1.546E-5****	1.602E-5****
	(3.478)	(3.610)
[D] BREEAM Good	0.012	0.001
	(0.280)	(0.032)
[D] BREEAM Excellent	0.143****	0.129***
	(3.318)	(2.965)
[D] BREEAM Outstanding	0.216 ***	0.196*
	(2.013)	(1.826)
[D] Masonry	-0.016	-0.019
	(-0.481)	(-0.591)
[D] Reinforced Concrete	-0.049	-0.048
	(-1.493)	(-1.453)
[D] 24 Hour Access	0.091**	0.088**
	(3.173)	(3.056)
[D] Property Manager	-0.012	-0.015
	(-0.440)	(-0.520)
[D] Restaurant	-0.006	-0.011
	(-0.212)	(-0.378)
Lifts	0.008**	0.008**
	(2.219)	(2.249)
Parking	0.000252	0.000255
	(1.083)	(1.098)
Highest Floor	0.021****	0.021****
	(5.143)	(5.141)
Highest Floor Squared	-0.000406****	-0.000410****
	(-3.458)	(-3.501)
[D] FW provider		-0.062**
		(-2.357)
Adjusted R Squared	0.590	0.592

Note: Dependent variable: Logarithm of Effective Rent per Square Foot

* Significant at a 0.1 level **Significant at a 0.05 level ***Significant at a 0.01 level ****Significant at a 0.001 level

Table V shows the regression results of models (3) to (5) estimated with fixed effects at a building and year signed level. The overall goodness of fit improves to 0.697 in Model 3 and the dummy variable *'FW provider'* remains to yield a negative and statistically significant coefficient which is very similar to model 2. Model 4 further explores the potential differences in rent among other tenants and FW providers occupying different proportions of the building. The results show that only FW providers that occupy 10% or less of a building pay a discount of 10.6% in rent compared to other tenants, but there are no statistical differences between other tenants and FW providers occupying larger proportions of buildings.

Model (5) tests the main flexible workspace providers in the sample to check if they convey bargaining power to landlords due to the greater amount leased. Only Landmark would get a discount of 14.36%. For other smaller providers, the discount documented was 8.42%,. Such findings seem to reiterate the results found in model (4) as the operators that do not showcase significance occupy greater proportions of the building (WeWork takes 25.36%, Regus 17.47%, The Office Group takes 33.45%), and operators that display significance, occupy smaller proportions of the net internal area (Landmark takes on average 10.54% of the building and other providers take 9.70%).

Table V – Regression results: Building and Signed Year fixed

Variables	**Model 3**	**Model 4**	**Model 5**
Size	-3.300E-6* (-1.894)	-3.652E-6* (-1.831)	-3.676E-6** (-2.092)
Size Squared	3.284E-11** (2.318)	3.541E-11* (1.832)	3.114E-11** (2.181)
Term	0.003 (0.679)	0.003 (0.533)	0.002 (0.390)
Term Squared	-4.936E-5 (-1.422)	-4.460E-5 (-1.275)	-4.019E-5 (-1.129)
Highest Floor	0.024**** (4.840)	0.023**** (4.780)	0.023**** (4.774)
Highest Floor Squared	-0.001**** (-3.708)	-0.001**** (-3.656)	-0.001**** (-3.588)
[D] FW provider	-0.063** (-2.009)	-	-
[D] FW10	-	-0.112*** (-2.655)	-
[D] FW20	-	0.018 (0.344)	-
[D] FW30	-	-0.056 (-0.689)	-
[D] FW40	-	-0.060 (-0.682)	-
[D] FW50	-	-0.192 (-1.294)	-
[D] FW60	-	-0.084 (-0.297)	-
[D] FW70	-	0.036 (0.246)	-

[D] FW80	-	-0.096 (-0.229)	-
[D] FW90	-	-0.413 (-0.881)	-
[D] FW100	-	-0.178 (-0.339)	-
[D] WeWork	-	-	0.093 (1.071)
[D] Regus	-	-	0.031 (0.297)
[D] Landmark	-	-	-0.155** (-2.121)
[D] The Office Group	-	-	0.020 (0.184)
[D] Other FW	-	-	-0.088** (-2.233)
Adjusted R Squared	0.697	0.696	0.699

Note: Dependent variable: Logarithm of Effective Rent per Square Foot
* Significant at a 0.1 level **Significant at a 0.05 level ***Significant at a 0.01 level ****Significant at a 0.001 level

The regression results of models (6) and (7), also estimated with fixed effects at a building and year signed level, are shown in Table VI. The results show that new leases trigger higher rents over renewals, which as seen in the literature, can be due to high landlord's search costs (Wong and Cheung, 2017). However, the negative and statistically significant coefficient of the $'FW \times Lease\ Type'$ variable, indicates that new leases for flexible workspace providers yield a discount of 13.50%, which might indicate a greater bargaining power of these types of tenants. Model (7) investigates the industry of the other tenants in comparison to flexible workspace providers. The positive and statistically significant coefficients of '$Financials$' and '$Real\ Estate$' demonstrate that such industries pay a premium in the effective rent in comparison to '$FW\ Provider$'.

Table VI – Regression results: Building and Signed Year fixed

Variables	**Model 6**	**Model 7**
Size	-4.65E-6** (-2.041)	-3.221E-6* (-1.832)
Size Squared	3.326E-11* (1.944)	3.3E-11** (2.322)
Term	0.001 (0.197)	0.003 (0.648)
Term Squared	-3.601E-5 (-0.817)	-4.658E-5 (-1.337)
Highest Floor	0.023**** (4.699)	0.024**** (4.8)
Highest Floor Squared	-0.001**** (-3.517)	-0.001**** (-3.743)
[D] Lease Type	0.117* (1.727)	-
[D] Deal Type	-0.021 (-0.516)	-
Lease Type x Vacancy Rate Submarket^{+}	-0.005 (-0.054)	-
Lease Type x Size^{+}	0.039	-

	(0.904)	
Lease Type x Term^{+}	-0.012 (-0.322)	-
Lease Type x [D]Upmarket	-0.059 (-0.726)	-
FW x Lease Type	-0.145** (-1.995)	-
FW x Term	0.004 (0.600)	-
FW x Size	2.021E-6 (1.124)	-
[D] Communication Services	-	0.111 (1.407)
[D] Consumer Discretionary	-	0.040 (1.012)
[D] Consumer Staples	-	0.040 (0.222)
[D] Energy	-	0.017 (0.240)
[D] Financials	-	0.136**** (3.577)
[D] Health Care	-	0.049 (0.685)
[D] Industrials	-	0.053 (1.471)
[D] Information Technology	-	0.047 (0.971)
[D] Materials	-	0.271 (1.268)
[D] Real Estate (excluding FW)	-	0.116* (1.798)
Adjusted R Squared	0.696	0.7

6. Discussion and Conclusion

The current paper has filled the gap in the literature by presenting empirical evidence of how landlords perceive flexible workspace providers as tenants by analysing their rents. To this end, hedonic analysis was adopted to compare the effective rent providers pay in relation to other tenants within the same building. From a statistical perspective, there were three possibilities. First, providers could show a positive statistical significance, meaning that their tenancy would be considered risky, which would trigger a premium on the effective rent. Second, flexible workspace providers could display a negative statistical significance, meaning that their tenancy would be seen as a benefit that would trigger a discount in the effective rent or FW providers have strong bargaining power. Finally, in case of no significance, it would not be possible to draw a conclusion and flexible workspace providers as tenants might pay higher, lower, or equivalent rents in comparison to their peers.

This paper started with the reasons why providers might be treated by landlords as risks or benefits and while the literature seemed to make a stronger case for flexible workspace providers as risks,

the findings of this study argue otherwise. It was found a negative statistically and economically significant relationship between flexible workspace tenancy and effective rents in the London market from 2011 to 2021 which indicates that these tenants pay 6% less in annual effective rent compared to their peers. Such a finding could suggest that this type of tenant might be seen as a benefit from the landlord's perspective which would trigger a discount in rent.

However, when analysing the proportion of the building occupied by such tenants, occupancy up to 10% yielded lower rents, suggesting that greater exposure to the segment might not be perceived as desirable by landlords. Such finding concurs with the results when we analyse the main players in the London market. Neither WeWork, Regus, or The Office Group showcased a statistical significance. However, a discount was found for Landmark and smaller providers, who tend to occupy lower proportions of the net internal area of buildings in the sample. This finding seems to indicate that exposure to the FW sector is perceived as advantageous to the building up to a certain level of occupancy.

We also observed that overall, new leases trigger a premium of about 12% in effective rents in comparison to renewals. This might be due to high landlord's search cost during high vacancy rate periods or when the space to be let is large and demand are less elastic. However, we recorded that when the new lease is to an FW provider, it conveys a discount of 13.5%, over renewals to FW providers and new leases or renewals to other tenants, a finding that indicates the bargaining powers of FW providers in new leases.

When comparing the tenant's industries, we found that finance and real estate tenants pay more rent than flexible workspace providers within the same building. Finance and real estate tenants include those with strong covenant strength, like The Royal Bank of Scotland, Morgan Stanley UK and Great Portland Estates. While one might expect them to get a discount in rent due to their stronger bargaining power, as seen in the literature, these firms are likely to occupy top-quality properties (a characteristic that is not observed in the dataset) and the observed premium in rent is subject to further research. The study also sheds some light on the impact of the pandemic in the FW sector showing that in 2020 and up until April 2021, only two leases were recorded in the sample. However, since the number of observations in that period were so few, no conclusion could be made regarding the impact on effective rents. We further document that FW providers take, on average, about 7,000 square feet more space than other tenants and that their leases are more than 2 years longer on average.

The most important contribution of this study is that it provides evidence on the relationship and negotiation dimensions between landlords and flexible workspace providers as tenants, a topic that does not have major coverage in the literature. This study aimed to further investigate whether rents paid by FW operators are systematically different from those paid by other office tenants.

Over different models we observed great robustness of the variables regarding flexible workspace tenancy, once whenever significant, FW providers trigger discounts ranging from 6% to 14.36%. This analysis has the potential to identify how providers are perceived in the market and offers both academics and practitioners valuable insights. Thus, future research should continue to analyse the FW sector from different perspectives using different methodologies and sources of information. For instance, more in-depth studies and interviews with landlords renting spaces to FW providers would allow to understand the reasons why they charge FW tenants differently; besides, it should be interesting to explore if landlords and other tenants within the same building see the presence of a FW provider as a benefit. In addition, it is important to measure the impact of the Covid-19 pandemic on the relationship between providers and landlords, both in terms of lease conditions and management agreement options. Another issue that might be worth exploring is the occupancy levels of flexible workspaces by corporations, as they might integrate more FW in their portfolio as the aftermath of the pandemic and the forced experiment of working from home.

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