CBRE

Is sustainability certification in Real Estate worth it?

Evidence from European office markets

RESEARCH





Foreword

Climate change and environmental stewardship are among the most important global challenges of our time. As the world's largest commercial real estate services firm with a portfolio of over 650 million sqm under management, CBRE recognises this and is committed to playing a leadership role to minimise negative environmental impacts and promote best practices in this area. Our approach is sustainable and environmentally focused, recognizing both the responsibility and the opportunity to influence the way buildings are built, sourced, managed, occupied and sold.

In recognition of our progress in ESG, CBRE is the only commercial real estate services provider included in the Dow Jones Sustainability World Index - a feat that we have accomplished for the past two years. Building on our momentum, in late 2020, CBRE committed to achieve net zero carbon emissions by 2040. This commitment encompasses carbon emissions from the properties CBRE manages for investors and occupiers, as well as indirect supply chain emissions. CBRE committed to science-based greenhouse gas reduction targets with a goal of cutting own operational emissions by more than two-thirds by 2035. As a part of its 2040 net-zero emissions strategy, CBRE also signed The Climate Pledge, a commitment to achieving net-zero carbon 10 years ahead of the goal stated in the Paris Agreement.

One of the most important areas in this debate is enhancing the availability of data and analytical insights in real estate, one of the sectors of the economy that can materially contribute to reducing carbon emissions. This is increasingly necessary to allow actors in the real estate market to implement their stated intentions and make decisions that are environmentally better, and capable of being measured as such. We are therefore delighted to introduce this new report which focuses on how sustainability office certifications impact value creation, but also the role they are playing in making the office sector future fit.

We hope that you, our valued clients, find this interesting and useful and as ever we welcome any comments and feedback.



Marco Hekman



Jos Tromp



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Executive summary

CBRE undertook an analysis to understand the relationship between sustainability certifications and rents achieved.

As buildings with strong environmental performance tend to be newer, premium assets, it can be challenging to pinpoint the sustainability premium. To compensate for this, we have ensured to base our analysis on the largest pool possible. The analysis was done on a comparison basis (and not on a regression basis), with the aim to better understand sustainable value-drivers of which sustainability certifications are only one. More research is definitely required but we see this as start of a journey where we all need to contribute to make a real impact.



The main findings in our research are:

1 Environmentally certified office buildings have become a larger component of the market over the past five years. In the markets analysed, the certified share stands at 20% as at mid-2021 compared with 11% in 2016.

2 As commitments to decarbonise rise, demand for sustainable buildings is expected to do the same. Certified office take-up has risen from 24% of the market five years ago to 31% now, confirming the trend that leasing activity is increasingly focused on certified buildings

3 Although location is still seen as the most dominant factor in decision making for occupiers, the ESG agenda is crucial for corporate social responsibility (CSR) and 'value-add', especially in carbon-intensive industries.

4 All cities in this study identify that certified office buildings command lower vacancy rates than non-certified buildings.

5 There is a significant observed premium for certified office buildings – our analysis has identified a 5Y average premium between 13% and 29% depending on the market, with an average of 21%, based on the comparison of actual rents in certified versus non-certified buildings.

Aim of the report

Attention to sustainability principles, in particular energy efficiency, has increased rapidly in the commercial property sector.

There is a widespread perception that, although development of sustainable offices generally incurs an additional incremental cost, it should also generate positive value benefits. But the evidence base for this has not always kept up with the perception. In this report we look at the question:

Do certified buildings have distinctive performance characteristics - around leasing, rent and vacancy - that are different from those of non-certified buildings?

Overall, there are four categories of benefits that are often associated with sustainable buildings:

1. Positive environmental impact, through the reduction of waste and green-house gas emissions (GHG) during the entire building lifecycle.
2. Cost savings through reduced water and energy consumption, as well as lower operation and maintenance costs.
3. Increased comfort, health, and productivity from improved environmental quality.
4. Enhanced corporate reputation related to market stakeholders' understanding of corporate commitment to comply with the corporate social responsibility (CSR) requirements.

The hypothesis is that if all four categories of benefits are being present, the market value will capitalise on them – buildings will command higher occupancy and rental levels, their marketability will be improved, and obsolescence will be reduced. The 'flight to quality' tendency will likely reinforce these trends[1].

CBRE undertook an analysis to understand the relationship between sustainability certifications and rents achieved. The analysis was done on a comparison basis (and not on a regression basis), with the aim to better understand sustainable value-drivers of which sustainability certifications are only one. More research is definitely required but we see this as start of a journey where we all need to contribute to make a real impact.

12 Countries - 15 Cities[2]

Certifications

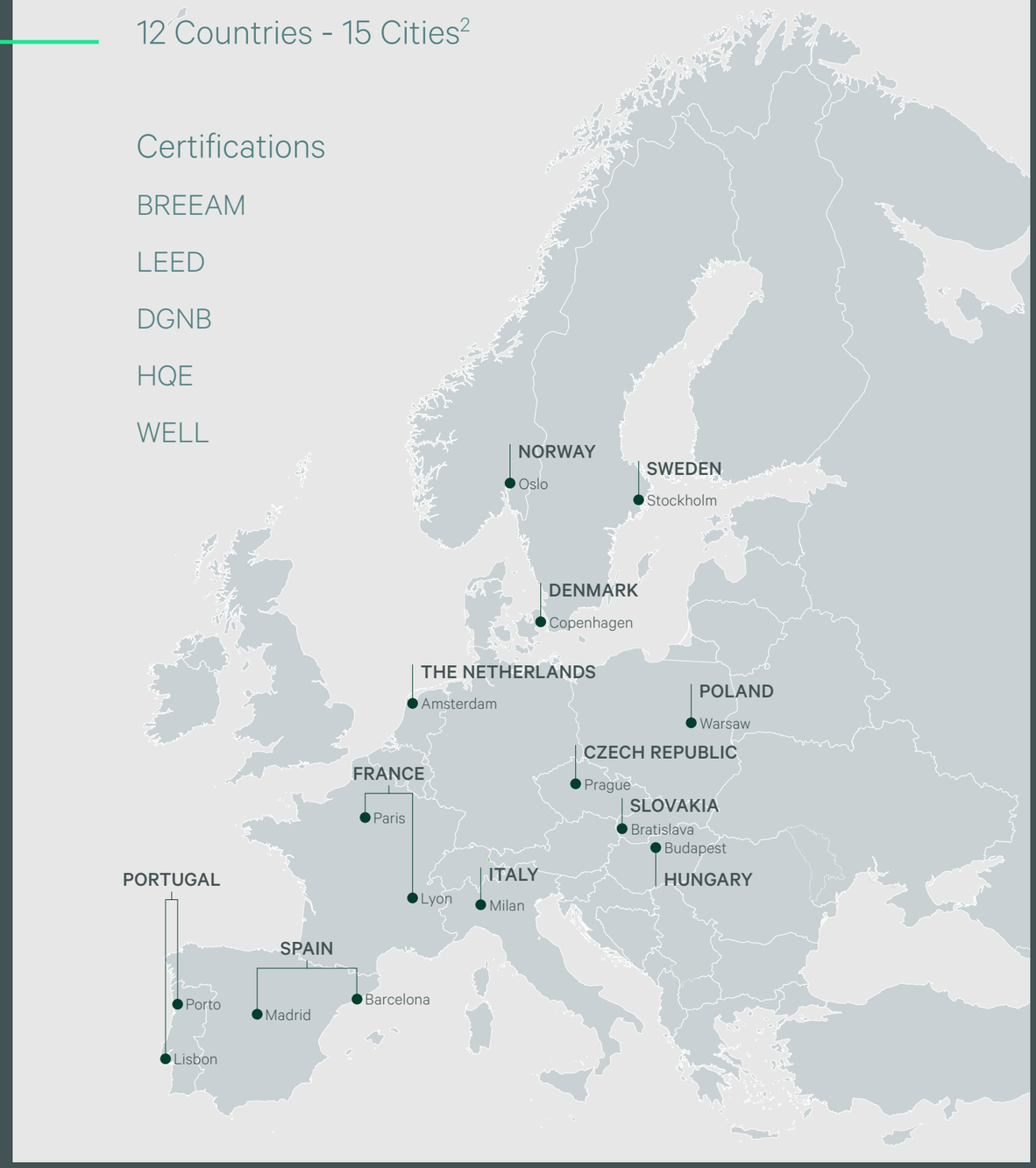
BREEAM

LEED

DGNB

HQE

WELL



[1]CBRE: EMEA Occupier Survey, 2021

[2]The data availability and data quality vary per local market. The analysis is therefore limited to cities with reliable data. Cities where the data was inconsistent or unable to be validated by the available resources were excluded from the respective analysis scope.

Analysis fundamentals included in this study

Aggregated floor area of certified offices: approx

26M sqm

20%

Of total 128 million sqm office stock at H1 2021

22,000

Lease agreements have been analysed of which 2,000 leases occurred in certified buildings and 20,000 leases occurred in non-certified buildings

Aggregated floor area of lease agreements in certified buildings is approx

10M sqm

31%

Of total 33 million sqm office take-up during the survey period 2016-H1 2021



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Building certification: a driver for value creation

There are strong differences in CAGR (2016 - H1 2021) figures for total and certified office stock across markets

1. Certified office stock is rising

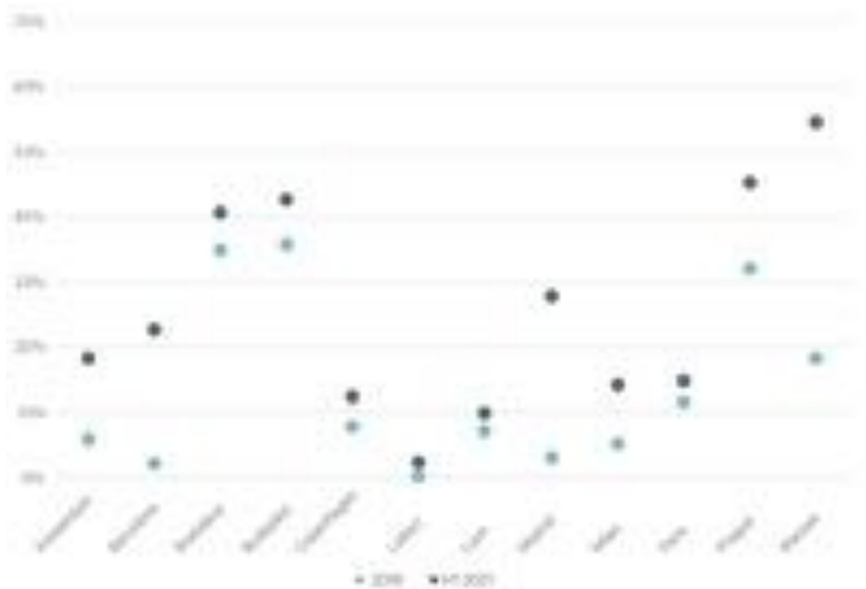
In order to assess where the market is related to certified buildings, the first point to establish is the contribution of certified buildings to total office stock. In the markets analysed (see Figure 1), the certified share stands at 20% as at mid-2021 compared with 11% in 2016 (see Figure 1). Environmentally certified office buildings have become a larger component of the market over the past five years.

At the same time there is widespread variation among the main cities. The share of certified buildings in the total office stock varies from 3% in Lisbon to 54% in Warsaw. Four cities (Bratislava, Budapest, Prague, Warsaw) record the highest share of the certified stock, all above 40%. The reasons for this include factors such as the implementation of certifications for buildings in operation, strong development activity and relatively high historical vacancy levels. Much lower figures (under 20%) are seen in Paris, Milan and Amsterdam.

It is important to note that the figures for France (Paris and Lyon) presented in Figure 1 and Figure 2 do not reflect the information for buildings in operation but only new constructions and renovation certificates.

It is also worth looking at how this relates to the overall growth in office stock. Across all the cities analysed, certified stock has grown more rapidly than overall stock in the past five years, and in some cases by a very wide margin. In several markets (eg. Madrid and Barcelona), the total office stock remained flat over the period, while Compound Annual Growth Rate (CAGR) for certified offices landed well above 10%. In these markets, there has been a big push to certify existing buildings (eg. retrofitting). By contrast markets with a high share of certified offices in the total stock (eg. Budapest) have seen CAGR for total and certified office stock running at a very similar level.

Figure 1: The share of certified offices in the total office stock (2016 and H1 2021)



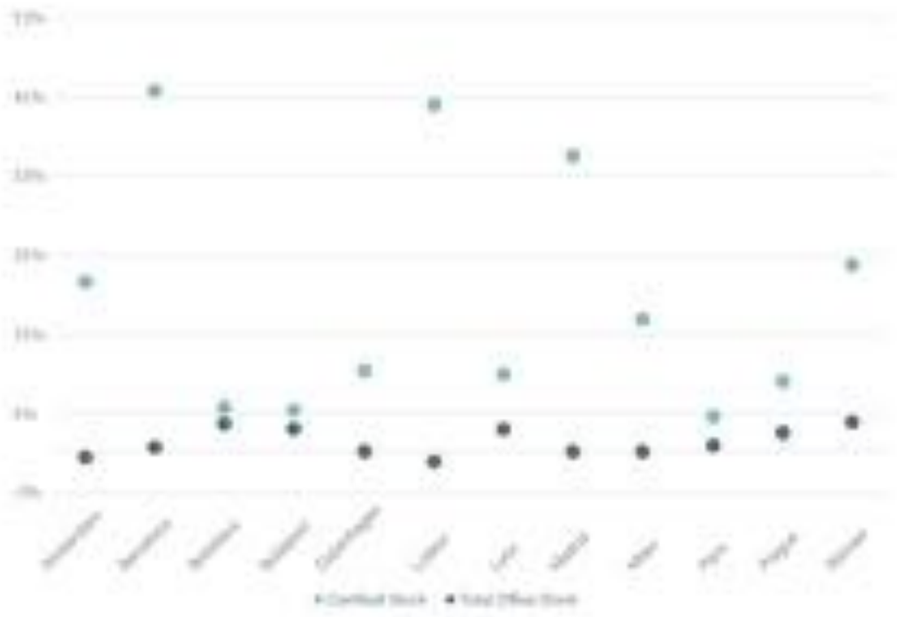
Note: data for France (Paris and Lyon), does not include LEED and 'in-use' certificates
Source: CBRE Research (2021 Q3)

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Finally, several markets have seen a contraction in total office stock (eg. Copenhagen and Lisbon) but sizeable increases in certified stock. Reasons for this vary and include factors such as limited speculative office development and/or strong redevelopment trend, including change of purpose of older office stock.

Alongside these general trends there are clear regional/national differences in the preferred certification systems. 8.6 million sqm of offices in our sample have been certified with BREEAM, making it the most preferred sustainability building certification but there are examples of buildings having double certification, in particular in France, where HQE and BREEAM are often used. We expect this trend to continue as property investors increasingly look for cross-border comparability of their investments, ensuring comparability at both local and international level.

Figure 2: CAGR for certified and total office stock (2016 - H1 2021)



Note: data for France (Paris and Lyon), does not include LEED and 'in-use' certificates
Source: CBRE Research (2021 Q3)

BREEAM is the most used building certification in the markets analysed



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As commitments to decarbonise rise, demand for sustainable buildings is expected to do the same. Certified office take-up has risen from 24% of the market five years ago to 31% now, confirming the trend that leasing activity is increasingly focused on certified buildings.

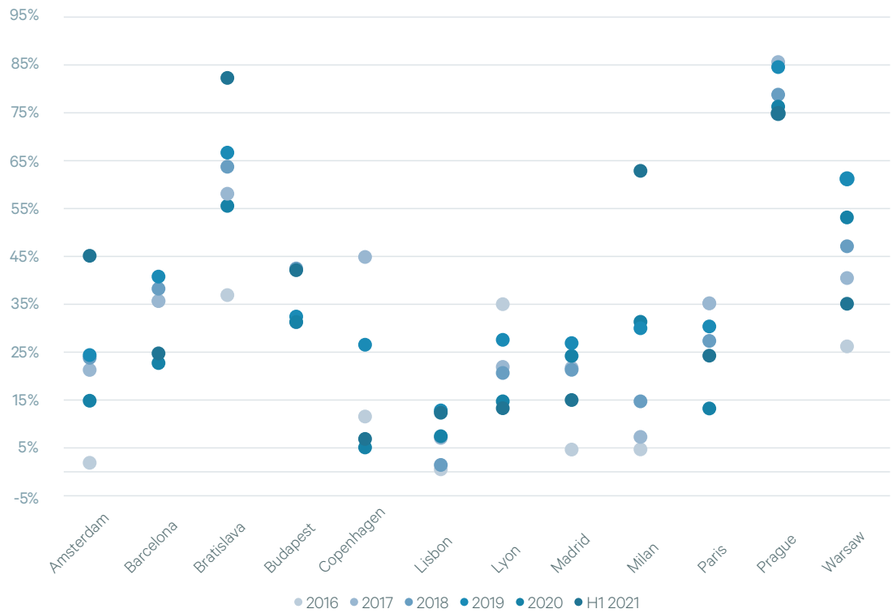
2. Is leasing activity following suit?

As shown in the first section, sustainable office buildings make up a rising proportion of office stock. But is this also true for leasing activity?

Our analysis confirmed certified office take-up represented 24% of take-up in 2016 rising to 31% in H1 2021. Despite the fact the trend is clear, this hasn't been the result of straight-line growth, and there are large local variations. As take-up activity is a combination of occupier demand and product availability, in markets with limited available certified stock (such as Copenhagen and Lisbon) this can be reflected in low take-up levels. Furthermore, low vacancy levels within the certified stock in some markets (eg. Paris, Lyon and Copenhagen) have even resulted in the percentages of certified take-up falling, though they do seem to be the exceptions.

In H1 2021, the share of office space in certified buildings in the total office take-up varied from 5% in Copenhagen to 81% in Bratislava.

Figure 3: Certified office take-up as a percentage of total office take-up (2016 - H1 2021)



Source: CBRE Research (2021 Q3)

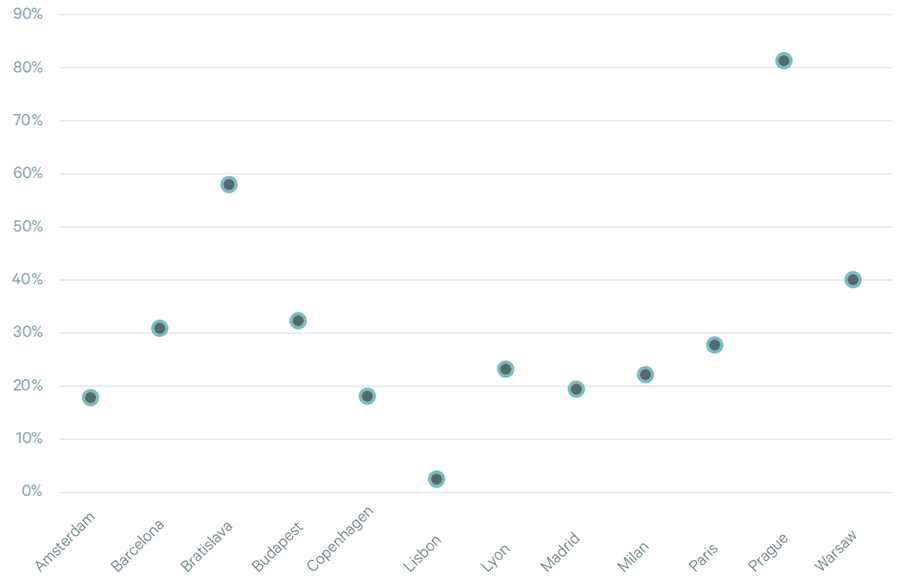
Although location is still the dominant factor in decision making for occupiers, the ESG agenda arises as crucial for CSR and 'value-add', especially in carbon-intensive industries.

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The 5Y average share of office space in certified buildings in the total office take-up varies from 4% in Lisbon to 80% in Prague. Again, this is partly the result of supply composition: markets such as Budapest, Prague and Bratislava have high proportions of certified buildings in their office stock, so there is more scope for occupiers to choose certified buildings. The reverse is true in Amsterdam, Lisbon and Copenhagen. One of the reasons why markets in Central and Eastern Europe (CEE) have more certified stock, is that their stock is largely "modern" and was built more recently than many of their Western European counterparts. This has created competition during times of peak delivery and therefore owners and developers have been more pro-active on applying for certifications compared to Western Europe.

Although sustainability certifications are certainly a good selling point, they are just one of the factors occupiers take into account when committing to new space/location.

Figure 4: Certified office take-up as a percentage of total office take-up, 5Y average (2016 - 2020)

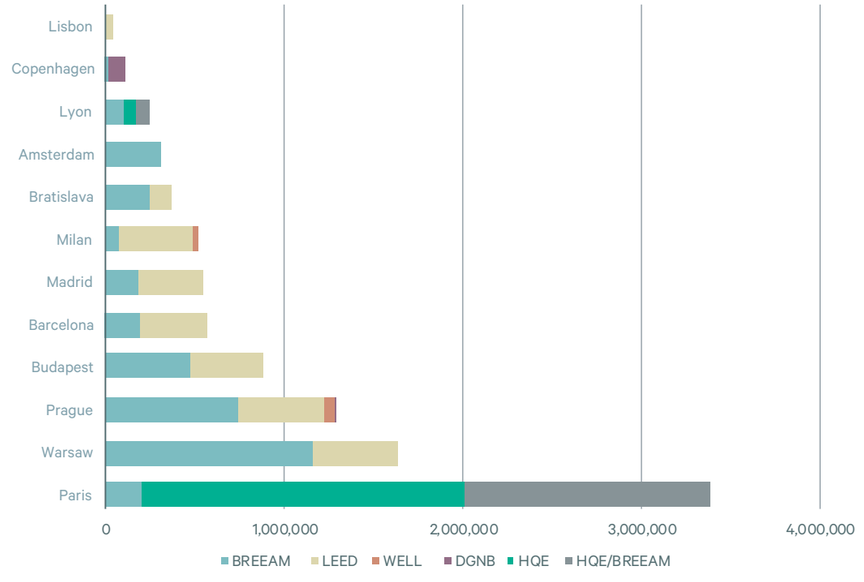


Source: CBRE Research (2021 Q3)

In case of mature office markets such as Paris and Lyon for example, the process of certification for new and refurbished buildings will be long and will have significant impact on the market. This is confirmed by the relatively low share of certified stock in the total take-up. Back to the point mentioned before: French office markets traditionally have a longer history and with that low levels of certification, compared to CEE for example.

The five-year aggregated take-up figures are a good indicator of differences by market. While Paris has seen the highest level of activity (aggregated 5Y office take-up in certified office buildings), this represents only 27% of the total office take-up on average (5Y). On the other hand, leasing activity in certified offices in Prague has been strong in relative terms but also as % share of the total take-up.

Figure 5: Aggregated 5Y (2016-H1 2021) office take-up in certified buildings (sqm)



Source: CBRE Research (2021 Q3)

3. Certification lowers vacancy risks

In all the cities analysed, certified buildings command lower vacancy rates compared to non-certified buildings. The spread is particularly striking in Paris and Lyon, with the vacancy rate in the certified stock being as low as 1.5% (as of H1 2021) in Paris compared to 6.7% on a market level; and 0.5% in the certified stock in Lyon compared to 4.8% on a market level. In 2020 the pandemic caused the incremental increase in office vacancy for the market as a whole including certified buildings. As the markets recovered from the pandemic in H1 2021, the vacancy for certified stock is again dropping while the overall market, and therefore the non-certified stock shows an upward trend.

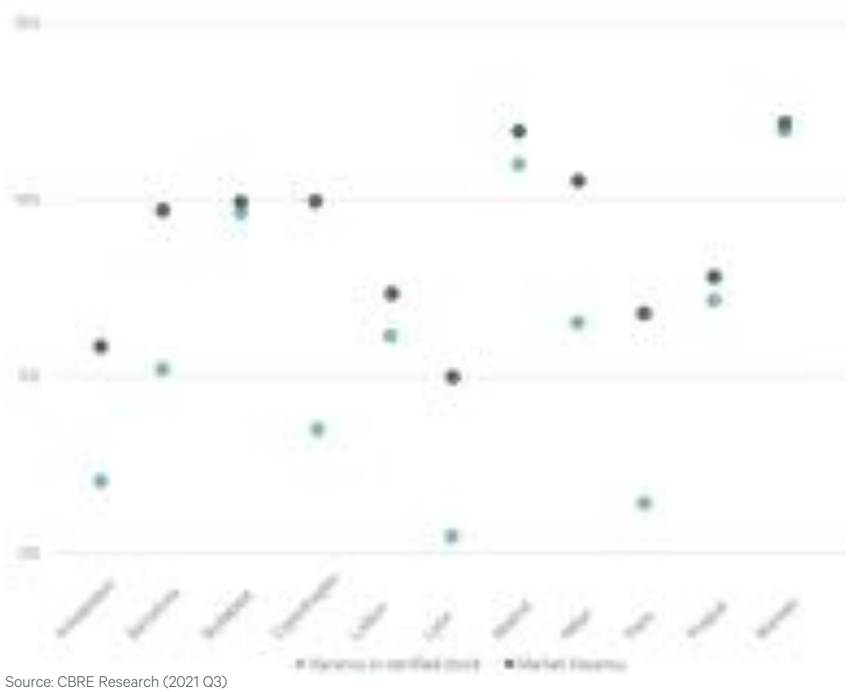
The universal trend shows that certified stock is registering lower vacancy rates than the market as whole. Markets commanding high vacancy rates in certified stock (Budapest, Prague and Warsaw) are also markets with some of the highest share of certified stock in the total office stock. On the other hand, high vacancy levels within the certified office stock in Madrid and Barcelona must be considered in relation to a significant increase in certified stock in H1 2021 compared to 2020.

Our historical data analysis confirms the trend where lower vacancy rates are observed in the certified stock. On a submarket level, the general trend behind both values shows a similar pattern.

Going forward, market fundamentals and the ESG agenda will likely result in an increasing gap between vacancy rates in certified and non-certified office stock. This is driven by corporate occupiers shifting preferences towards certified buildings increasingly. One of the trends observed in a number of markets is strong pre-let activity for certified stock. In time, this trend could become more pronounced, especially in markets where demand for sustainable offices outgrows supply.

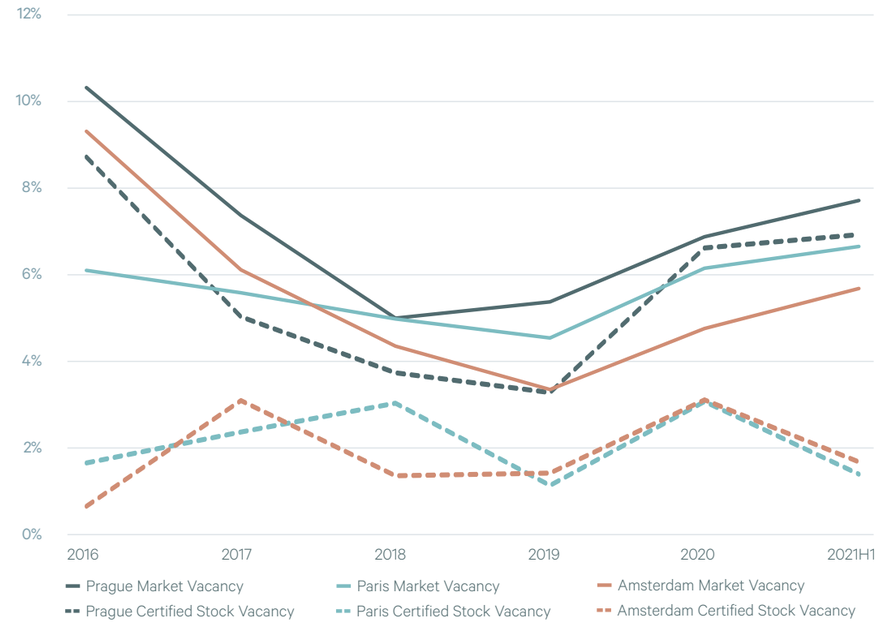
All cities show lower vacancy rates for certified office buildings compared to non-certified buildings

Figure 6: Vacancy in certified stock vs. average market vacancy, H1 2021



Source: CBRE Research (2021 Q3)

Figure 7: Vacancy in certified stock vs. average market vacancy, 2016 – H1 2021



Source: CBRE Research (2021 Q3)

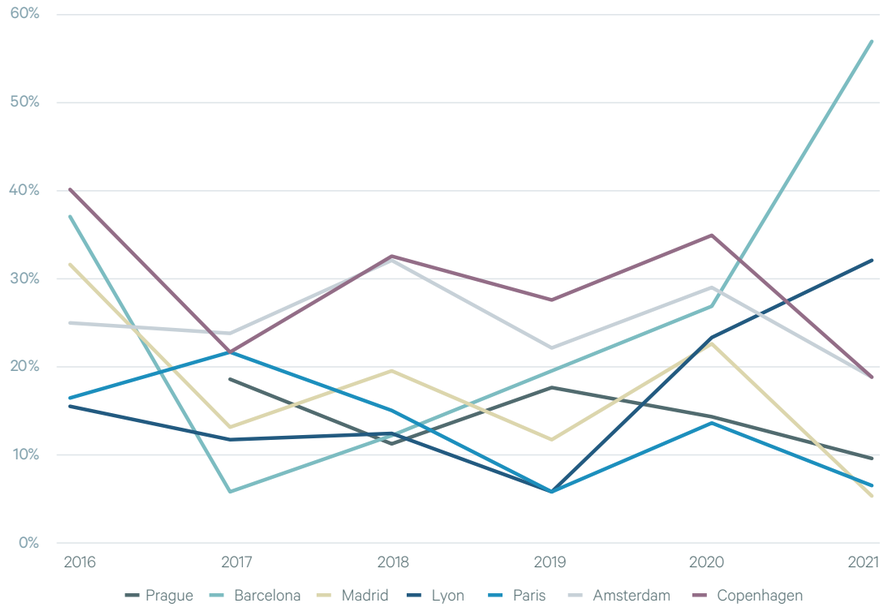
4. Rent levels higher in certified buildings

Our analysis shows that certified buildings have a 5Y average rent premium of between 13% and 29% depending on the market, with an average of 21%, compared to market average or non-certified buildings.

All things equal, sustainability certificates have a fundamental impact on the characteristics of a building, and thus also influences its value. We could though argue whether it is the certification itself or the special features of the building achieved through the certification or location that are the drivers of value creation. One can also argue that the premium might be high due to discrepancy in the number of observations within the certified and non-certified stock. While this could be accepted as an argument for some markets, the rental premium is also confirmed in markets and sub-markets with a high share of take-up activity in certified buildings. One such example is Prague, where over the five-year period (2016-H1 2021), in average, 80% of total leasing activity involved certified properties, but similar results are available for Amsterdam South-Axis for example.

More research is required to establish the effects of individual drivers of value.

Figure 8: Certified rent (premium) compared to uncertified rent (2016 – H1 2021)



Source: CBRE Research (2021 Q3)
Note: Analysis is based on net rents, except for Amsterdam, where analysis is based on gross rents. We are excluding any rent free periods negotiated between landlord and tenant.

This study uses a proprietary dataset of office building leasing transactions to investigate whether obtaining sustainable building certification entails a rental premium for commercial office buildings. To do this, a comparative analysis has been applied to a large dataset, comprising close to 22,000 leasing transactions and tracking the development over the 2016-2021 period. While rent premiums can be due to a number of local factors, this report focuses on a comparative analysis of rental rates in certified and non-certified office buildings to identify the rental premium of sustainable buildings. Although a comparative study does not allow for isolating certification as a single factor driving the rent premium, European markets being part of our analysis have demonstrated the same trend, despite having quite different fundamentals.

This study did not fully control for building specific features that lead to higher rents, such as age, location and grade, but the sample size was large, the findings were consistent across markets and we believe that certification is an important part of the story. Based on the yearly average office rents for certified and non-certified leasing transactions the rental premium is identified. Further research is underway to more closely specify the certification rent premium, controlling for other factors.

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There is a significant premium for certified office buildings: a 5Y average premium of 21%

The rental premium seems to be driven by the share of the certified stock. In markets commanding the highest 5Y period rental premium, the relative share of the certified stock in the total office stock is on the lower side of the sample. Additionally, the spread between vacancy in certified stock vs. average market vacancy is more pronounced in these markets than for the sample as whole. This can imply that higher supply and availability of certified stock can result in flattening of the rental premium.

The calculated average rentals premiums are based on lease evidence for the market, where the analysis takes account of a heterogeneous sample of buildings. More detailed analysis has shown significant differences in the supply and availability of certified office buildings on a granular, submarket level. Therefore, rental premiums on a submarket level can differ significantly within the cities that are part of this study – all depending on how represented certified buildings are in the total office stock within that submarket. This implies that, for example, a rental premium could be flatter in submarkets commanding high rental levels within both certified and non-certified stock. Opposite to that, submarkets commanding lower average rents and seeing limited supply of certified buildings in the total stock could see higher premiums. The main limitation of the submarket analysis are often low levels of observations for the certified stock.

As demand has increased with pandemic restrictions easing it is interesting to observe the following. We can already see in Q3 2021 that rental levels in certified properties are growing more quickly than the market as whole. As certification standards are likely to evolve further, it will be interesting to follow further developments of differential pricing. In line with the general stock of buildings becoming more energy-efficient through new regulations, building certifications will persist as a marker of distinction in sustainability performance. To better understand the dynamic pricing patterns of sustainable buildings, further considerations of rental premiums should also account for additional variables, such as lease agreements and actual energy consumption.

The average rental premium for certified offices - for the 5y period (2016 - H1 2021)

26%
Amsterdam

27%
Barcelona

29%
Copenhagen

18%
Madrid

18%
Lyon

15%
Paris

13%
Prague

Source: CBRE Research (2021 Q3)

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Conclusion

CBRE undertook an analysis to understand the relationship between sustainability certifications and rents achieved. The analysis was done on a comparison basis (and not on a regression basis), with the aim to better understand sustainable value-drivers of which sustainability certifications are only one. More research is definitely required but we see this as start of a journey where we all need to contribute to make a real impact.

Our analysis has shown that for Europe:

- The proportion of stock made up of certified buildings is rising
- Leasing velocity is generally higher in certified buildings, and vacancy risk lower
- An average rent premium of 21% is observed in certified office buildings over the five year analysis period

As more and more countries are announcing pledges to achieve net-zero emissions over the coming decades, there is increasing pressure on office building owners to implement changes to accommodate these goals. There is a real threat of significant value erosion on carbon-intensive assets, due to both increasingly stringent regulations but also pressure from the financial institutions, stakeholders, and occupiers.

Certified buildings command higher rental levels

Our study has shown that the benefits associated with sustainable buildings, such as lower operating costs, enhanced corporate reputation and increased comfort, health and productivity do capitalise into the rental value. This premium indicates a difference in rental levels between certified buildings and their non-certified counterparts.

As buildings with strong environmental performance tend to be newer, premium assets, it can be challenging to pinpoint the sustainability premium. Determining what portion of the premiums is associated with the improved efficiency of properties and what portion is associated with the brand value of certificates is a very challenging task. Nevertheless, our analysis has shown that there is considerable evidence that certified buildings command higher rents over comparable non-certified properties, indicating considerable potential for a “brown discount” for properties with relatively weaker sustainability performance[3]. To explain the willingness of occupiers to pay a higher price for sustainable buildings, two main mechanisms are often addressed. First, occupiers can discount operating cost savings at present value – which can be used to justify higher rental levels. Second, corporates connecting ESG and company strategy can prefer sustainable buildings, even though this is associated with higher occupancy costs.

Certified buildings command lower vacancy rates

Our analysis has demonstrated that in all cities in our sample, certified buildings command lower vacancy rates than the markets as whole. Within the CRE sector, vacancy rates are one of most used indicators of market conditions. Since vacancy rates are being applied to explain rent development, these two variables are often modelled as results of the interaction of the same supply and demand conditions.

Our analysis has shown that the CRE industry has embraced sustainability in its decision-making, recognising the fact that sustainable buildings have a pivotal role in 1) ensuring the transition to a low carbon economy and 2) managing potential risks. Conclusions presented in this report show a significant relation between sustainability certificates and buildings’ market value.

Further considerations

When integrating sustainability factors, market stakeholders generally agree on two key considerations that are relevant for the industry: time horizons within which value is sought and local market dynamics.

- Time horizons have proven to be one of the overriding challenges faced by the sector, as investors with short-term holding strategies could be resistant to focus on long-term value creation. Nevertheless, it is crucial for the sector to overcome this challenge and ensure that the European building sector is future fit.
- In its own turn, local market dynamics reflect a specific location to which real assets are linked, with a set of specific sustainability issues that play a role. This consideration points to the uniqueness of the building sector compared to other industries. While many companies can opt to relocate their operations, real assets are fixed, and are underwritten by local market fundamentals.

[3]CBRE: ESG &Real Estate, Top 10 things investors need to know, 2020

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Definitions of markets covered

AMSTERDAM

Municipality of Amsterdam. The main locations are the CBD (Zuidas), the city centre, Amsterdam Zuidoost and Amsterdam Sloterdijk. Other office locations are to be found near the main railway stations: Amstel (Amstel station), West (Lelylaan station) and IJ-Oevers (Central railway station).

BARCELONA

The city of Barcelona but also includes the municipalities of L'Hospitalet de Llobregat, El Prat de Llobregat, Esplugues de Llobregat, Cornellà, Sant Just, Sant Joan Despí, Viladecans, Castelldefels, Sant Boi, Barberà del Vallés, Cerdanyola, Sabadell, Badalona and Sant Cugat.

BRATISLAVA

Bratislava city districts 1 – 5, newly built since 1990 or refurbished, A and B class offices, owner-occupied and for lease and public authorities' buildings.

BUDAPEST

The stock consists of properties newly built or completely refurbished since 1990, qualified as A or B class by technical and location rating, developed for owner occupation or for lease. Buildings with leasable area under 1,000 sqm are not included. Geographical coverage is the Municipality of Budapest (23 districts).

COPENHAGEN

Copenhagen City, comprising the municipalities of Copenhagen, Fraderiskberg, Tårnby and Dragør.

MADRID

The city of Madrid but also includes the municipalities of Alcobendas, Pozuelo de Alarcón, Las Rozas, San Sebastián de los Reyes, Tres Cantos and Rivas.

MILAN

Municipality of Milan, Milano and Monza-Brianza provinces.

LYON

Greater Lyon including Lyon City + major office peripheral submarkets.

LISBON

Comprises buildings located in five well defined zones within Lisbon municipality - CBD 1, CBD 2, Expansion Area, Riverfront Axis and Parque das Nações - as well as the out of town Western Corridor zone, with most of the stock located in Oeiras municipality.

PARIS

Ile-de-France region (NUTS II). It includes Paris City as well as all peripheral submarkets (Inner and Outer Rims).

PRAGUE

Comprises of office buildings within Prague city districts 1 – 10, newly built since 1990 or refurbished, A and B class offices, owner occupied and for lease and public authorities' buildings. Buildings with leasable area lower than 1,000 sqm are excluded.

WARSAW

The municipality of Warsaw.

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