Real Estate Research

November 2024

Housing Affordability Review – 2024

Mapping Residental Rental Affordability around the World

IN A NUTSHELL

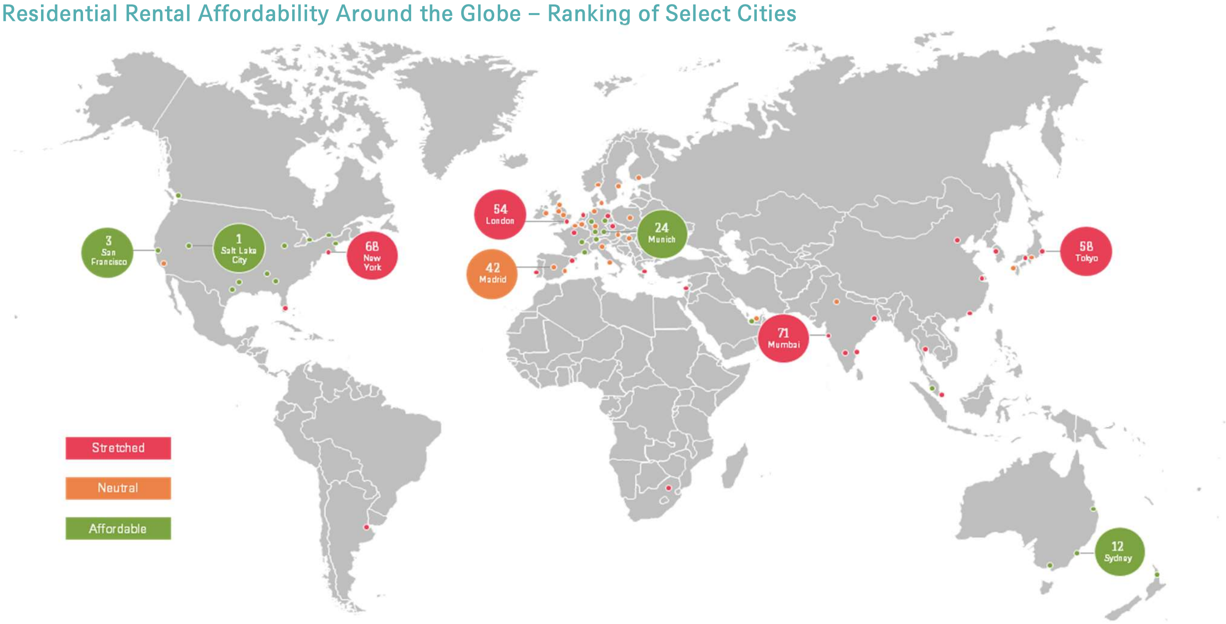
— Rental affordability, evaluated as rents in relation to incomes and post-rent spending power, varies significantly across the 75 global markets we analysed. The top position is taken by Salt Lake City, closely followed by Austin, Texas. At the other end of the spectrum stand Mumbai, Beijing and New York as some of the most expensive markets globally.

— On a regional level, US markets are generally more affordable, with six out of the top ten markets being located in the US, including San Francisco. However, New York or Miami are notable exceptions, ranking as significantly less affordable.

— European markets show mixed results. Major cities like London, Paris, Berlin or Amsterdam are among the most expensive globally, while smaller markets like Stuttgart and Lyon, but also Munich, were judged affordable.

— APAC is generally the least affordable region. Chinese and Indian cities are stretched, while Tokyo and Singapore also rank low in affordability. A notable exception in the region are Australian cities, including Sydney.

Residential Rental Affordability Around the Globe – Ranking of Select Cities



NB: Z-Score - Combined Affordability Ratio & Residual Household Income in USD (PPP)
Source: OECD, Oxford Economics, ULI, CEIC, globaldata, Eurostat, IMF, empirica, idealista, global property, local broker, national statistics, DWS, July 2024

1 / Introduction

Global Residential Affordability

Necessity for life

Throughout human history, "housing" has been a basic need, irreplaceable by other means. Industrialisation and mass urbanisation forever changed the way people lived. Growing populations, supply-demand imbalances, rising costs, the question of housing and housing affordability has, since this point, rarely been out of the public consciousness. Often viewed from a national perspective, these concerns repeat across the globe.

Drawing comparisons between cities is difficult, and unlikely to provide comfort to those struggling with the cost of housing. But for real estate investors it is an important question, providing insight into both the risks and the opportunities across different residential markets.

Rental focus

There is no one definition of housing affordability, but in this analysis, we look at it from a rental perspective, as opposed to the cost of ownership and the servicing of a mortgage.

While owner occupation is the prevalent form of housing globally, rental accommodation is gaining traction in many markets, accounting for an increasingly large share of institutional real estate investment portfolios.

Post Global Financial Crisis (GFC), reduced access to financing as well as an increased desire for flexibility have driven more people towards rental accommodation. Exacerbated in recent years by rising interest rates and a reduction in available rental accommodation, rental pressures have continued to mount, further elevating affordability concerns.

Sharply rising rents may benefit owners in the short-term, but over a sustained period a market that has become unaffordable could be at risk of increased income volatility – with tenants less able to absorb personal and economic shocks – as well as government intervention – increasingly common over recent years.

Given the growing prevalence of rental accommodation within institutional portfolios, alongside the event challenges in rental affordability that have emerged since the GFC, our analysis has focused on rental accommodation, comparing measures of affordability across major global cities. To monitor the progression of global affordability, we will look to revisit this analysis on an annual basis.

Measuring affordability

Housing affordability is a difficult indicator to measure, as it depends on many aspects across a multitude of individual households.

Cost-of-living measures are broad in their definition[1], while overburden rates often do not distinguish between type of occupation, including rental and owner occupier households and including all payments associated with housing.[2]

In this analysis we have used two measures. The first of which, a rental affordability ratio, refers to tenants alone and is defined as the proportion of median household income after tax spent on net rent, with a ratio of 30% often seen as the maximum threshold for affordability.[3]

The second approach considers residual spending power, measured as the dollar value of household disposable income after rental payments, stated as purchasing power parity (PPP). [4]

[1] E.g. Numbeo, 2024
[2] Eurostat, 2024
[3] E.g. Affordable Housing Commission, 2019, US Department for Housing and Urban Development, 2017
[4] See section 4. Data Definition & Methodology for further reference on indicators and measures used

This is a less common method for measuring rental affordability, but is an important consideration, given the complications associated with using a ratio across cities with a wide range of median incomes, which has the potential to mask the greater burden of rent in lower income cities.

As shown in the example below, in a low-income city someone renting may well use a lower share of their income on rent but could also find themselves with considerably less money left over once rental payments have been made.

Example: Rental Affordability Measures

	City A	City B
Median Income	$40,000	$100,000
Average Rent	$10,000	$50,000
Affordability Ratio	25%	50%
Residual Income (PPP)	$30,000	$50,000

See section 4 for further details.

2 / Results

Key Statement 1: Significant regional differences

Rental affordability as a share of disposable income remains, on average, at around 37% in our global sample of 75 cities, with individual results ranging from low 20% to almost 60% for the top 10 and bottom cities.

US markets look more affordable in this regard, averaging in the low 30% range and even well below that level when excluding extremely tight markets like New York or Miami.

Cities in the APAC region, on the other hand, are significantly more expensive at almost 40%, with Chinese and some Indian cities being at the forefront. However, notable exceptions are Australian markets, where rental affordability is much greater.

Meanwhile, European markets range in the middle of the pack but naturally show notable differences between capital and regional regional cities. Nevertheless, the contrast is less pronounced on average, leaving outliers like Lisbon aside, where local income remains below average while rents are driven by international migration.

Key Statement 2: Holistic view

Rental affordability is commonly used to determine the cost burden of a specific market. However, it is important to take a more comprehensive approach by also considering the remaining income after rental payments.

The results reveal a distinct perspective, altering the view on certain markets. Notable examples are cities like Dublin in Europe and Boston in the US, which show stressed affordability ratios, but the remaining income paints a more positive picture.

In the APAC region, the situation is reversed. Rental affordability ratios often appear more favourable, but remaining income, when adjusted for purchasing power parity, is significantly tighter. This is evident in Japanese cities like Nagoya and Fukuoka, as well as the Indian capital Delhi and agglomerations like Chennai.

Key Statement 3: Surprising outcomes

While the results for most individual cities align with intuition and general expectations, some markets are notable for their affordability – or lack thereof. Global gateway cities, known for their high cost of living, unsurprisingly score low on overall affordability. This is evident in cities like New York (68), Paris (66), Tokyo (58), and London (54).

"National hubs" such as Mumbai (71), Beijing (70) or Hong Kong (69) also fall into this category. This is partly due to their confined topography and/or their outstanding national importance.

Smaller or "more regional" cities in a global context are unsurprisingly more affordable. Examples include Salt Lake City (1) or Austin (2) in the US, Brisbane (6) in the APAC region or Stuttgart (13) and Lyon (15) in Europe. This pattern is consistent worldwide.

Interestingly, some markets defy expectations and surprise on the upside. One such example is San Francisco (3), a city that is often thought of as one of the most unaffordable housing markets in the US. Here the exceptionally high household incomes put high absolute rent levels into perspective and explain the strong result. Other such markets include Auckland (9) and Sydney (12), which both profit from the relatively underdeveloped institutional rental market.

Rental Affordability Ratio

Affordability ratios are a common way to measure the rental cost burden. Although a 30% threshold is typically deemed affordable, this level is frequently exceeded, especially in global megacities. Our findings indicate an average of 37% for the analysed housing stock – unfurnished 2-bedroom apartments in citywide housing locations in 75 global cities. This level is not too far off from the widely accepted benchmark of 30%.

Affordable US markets

While US markets are more affordable in terms of net rent vs. disposable household income, there are notable exceptions. As the US average stands at around 32%, cities like Austin or Salt Lake City are significantly below the mark at approximately 20%.

Conversely, exceptionally tight markets like New York or Miami fall in the 40-50% range or even higher. San Francisco is another obvious candidate for this category. Interestingly, the city is "only" on par with Los Angeles at approximately 35%. In San Francisco, the high median disposable household income helps lower the affordability ratio, despite above-average rents in absolute terms.

Disperse APAC region

Like the US, the APAC region also shows varied results. With an average of 38% across the 23 analysed markets, the region appears generally less affordable. Cities in India, China or the Middle East typically have tight affordability ratios of above 40%. While these results may not always reflect the typical rental stock or tenant type, the region generally seems expensive for renters, which might explain the strong preference for homeownership among residents.

The Australian market is a notable exception. With the institutional rental sector being in its early stages, it is typically more affordable, with ratios in the low to mid-20s. Sydney, the most expensive location, has an affordability ratio of around 28%, still well below the global average.

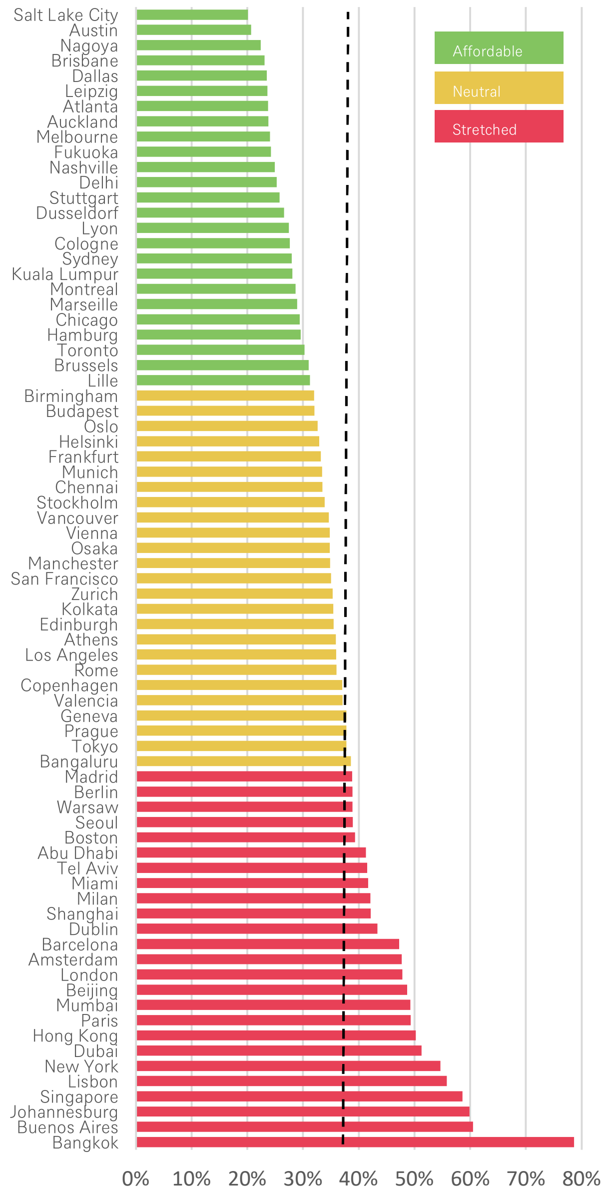
Established Europe

Europe, on the other hand, falls between the two other regions in terms of affordability. While regional disparities exist, they are generally less pronounced.

London or Paris, among the most expensive locations in Europe, have affordability ratios in the high 40s, only surpassed by Lisbon at 56%, which is somewhat of an outlier. This reflects a mismatch between local incomes, which are 25% below European peers, and high absolute rent levels, partly driven by previous visa policies for affluent migrants.

Regional markets like Leipzig or Lyon are some of the most affordable locations in Europe, well below the threshold of 30%. Given the strong income situation, even cities like Munich, Brussels, or Stockholm seem affordable. However, practical problems like housing scarcity, commuting issues, and relocation efforts are not considered in this regard.

Average Net Rents (2 bedroom apartment) as a share of Median Household Disposable Income (%)



Source: OECD, Oxford Economics, ULI, CEIC, globaldata, Eurostat, IMF, empirica, idealista, global property, local broker, national statistics, DWS, July 2024

Remaining Disposable Income after Rent

In addition to affordability ratios, it is prudent to broaden the perspective to include remaining disposable household income after rent. To reflect global differences in local standards and purchasing power, this measure is shown in purchasing power parity (PPP) terms. This conversion helps to improve comparability of remaining income across different markets and basically reflects "residual spending power".

Affluent markets 75% above the average level...

Among the 75 global markets we analysed, the median household typically has $4,000 (PPP) remaining after paying rent, although this varies significantly by location. At the upper end, cities like San Francisco and Abu Dhabi see remaining incomes as high as $7,000 (PPP), reflecting their high local income levels. Despite high absolute rent costs and weaker affordability ratios, residents in these cities are generally well-positioned to afford local rents.

However, these rent levels are undeniably at the upper end of the global spectrum in absolute terms and are often unaffordable for low-income households, who are consequently priced out of central locations and forced to commute.

...while stretched markets are 75% below

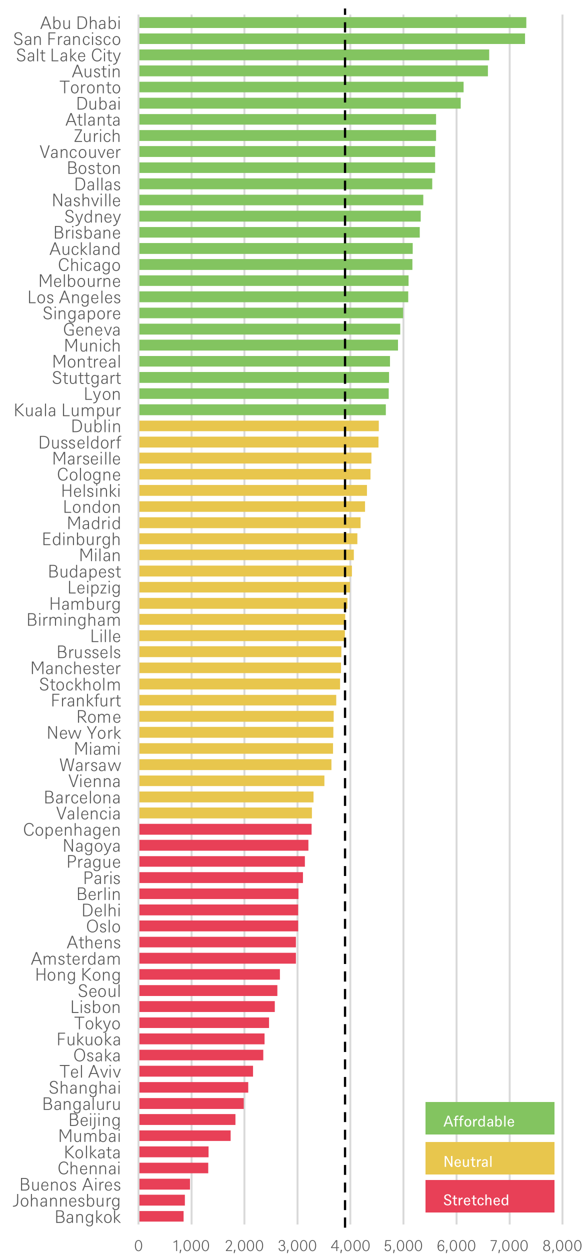
Renters in less developed economies like South Africa (Johannesburg), Thailand (Bangkok) or Argentina (Buenos Aires) often have less than 1,000 USD (PPP) left after paying their rent. These numbers partly reflect current economic conditions, especially in Argentina, but are also due to underdeveloped rental markets, that cater more towards more affluent, non-domestic tenant groups and are, as such, somewhat deceptive.

Interestingly, in China, India and even Japan affordability is stretched in terms of remaining disposable income. In these countries, homeownership is forming the backbone of the local housing market, the competition for space in these densely populated areas is strong and commuting times are often longer.

Again, European markets do not rank as high as their US peers but are mostly more affordable than APAC cities. The exceptions to this are tight housing markets such as Paris, Amsterdam or Berlin, where remaining income after rents is well below the global average. Berlin is likely to have seen this metric fall over recent years, following a period of sustained rental growth.

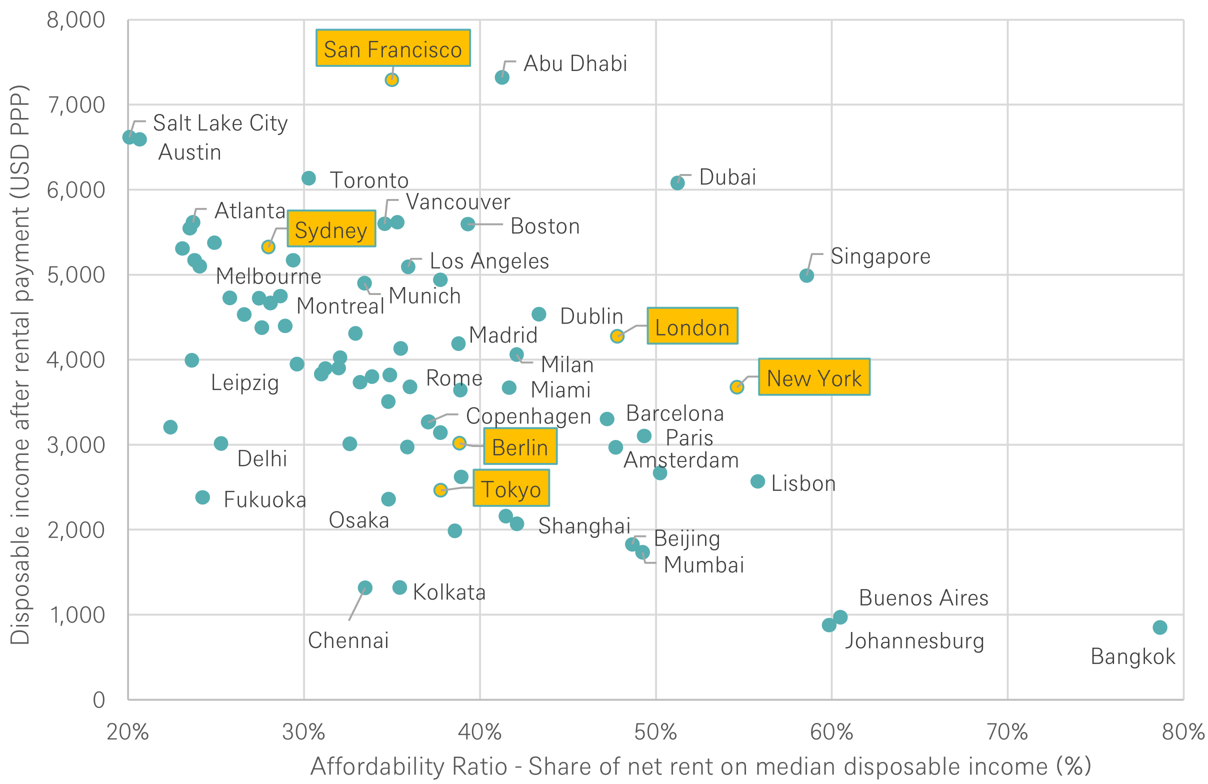
On the other hand, markets like Geneva, Munich and Dublin were all judged to be considerably more affordable based on these metrics – helped in part by higher-than-average wages.

Remaining Disposable Income after Rental Payment (USD, PPP)



Source: OECD, Oxford Economics, ULI, CEIC, globaldata, Eurostat, IMF, empirica, idealista, global property, local broker, national statistics, DWS, July 2024

Affordability Ratio & Remaining Disposable Income
(Affordability in %, income in USD, PPP)



Source: OECD, Oxford Economics, ULI, CEIC, globaldata, Eurostat, IMF, empirica, idealista, global property, local broker, national statistics, DWS, July 2024

Combined Affordability Score (Z-Score)

The combined affordability score of both indicators, or "Z-Score", provides a clearer picture of local market affordability. Similar to results for the individual indicators, the combined results exhibit a broad range.

US and Australian residential markets most affordable

As the other measures imply, the top spots are again in the US. Six of the top ten locations are in the US, with Salt Lake City being the most affordable, due to strong results in both rent to income ratios as well as remaining disposable income. Austin also scores well in both categories.

More surprising, is the top rank of San Francisco, slightly ahead of Atlanta and Dallas. Here the city's high incomes come into play. Despite having a rent to income ratio sitting somewhere in the middle of the pack, San Francisco's exceptionally high median income means that local households can often expect to have a large dollar amount of money remaining once rent has been paid.

The reminder of the global top-10 consists, among other US locations, of cities in Australia, New Zealand and Canada.

Heterogeneous picture in Europe

Similar to the US, regional cities in Europe, predominantly in Germany or France, are ranking highly. Stuttgart or Lyon, for example, make it into the top-15, benefitting from better affordability ratios, although their remaining income is weaker in a global context.

On the other hand, larger European agglomerations or capital cities typically attract more in-migration, hence rental markets in these locations are tighter. Cities like London, Berlin, Barcelona, Amsterdam, or Paris rank among the most unaffordable cities in the world.

While Paris and Berlin show weak results for both affordability measures, London is different. Despite a high rent to income ratio, high London wages suggest residents of the UK capital tend to have a little more residual spending power than some of the other more expensive European cities.

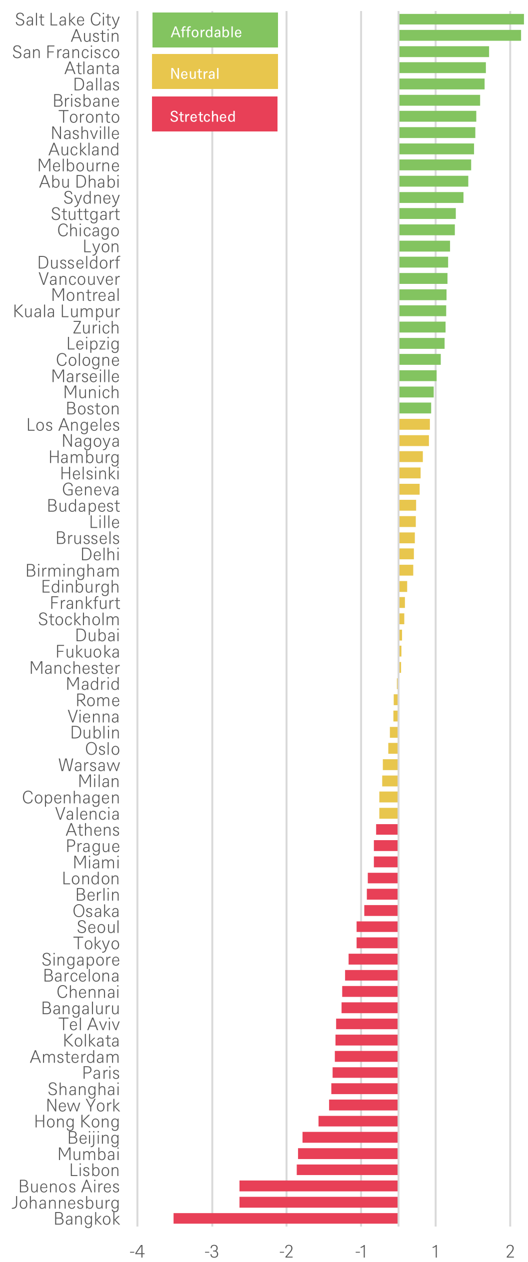
The overall affordability situation in London may be less stretched, however, it is worth remembering that in all these cities the range is broad and lower-income households are likely to still face significant challenges in finding suitable housing in such competitive markets.

Stretched Asian markets

The lower end of the range is dominated by APAC cities. Excluding expensive global gateways like New York or Paris and outliers such as Buenos Aires, Johannesburg, or Bangkok, Indian and Chinese cities are prominently featured.

These cities not only have high absolute rents relative to local income levels but also leave residents with limited disposable income after paying rent.

Combined Affordability Score (Z-Score)

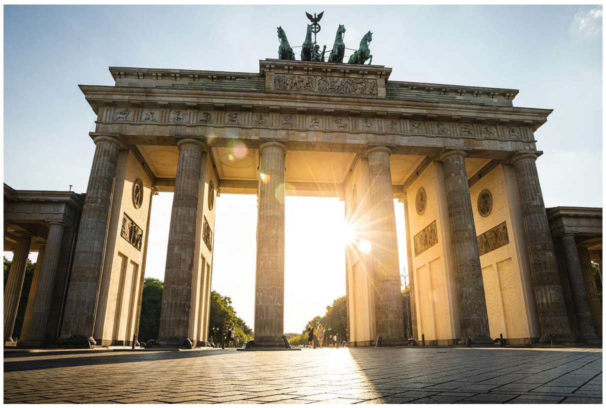


Source: OECD, Oxford Economics, ULI, CEIC, globaldata, Eurostat, IMF, empirica, idealista, global property, local broker, national statistics, DWS, July 2024

3 / Cities in Focus

Berlin – Rising through the Ranks

Market Specialist: Martin Lippmann, Frankfurt



To some it is the coolest city in the world, with a vibrant start-up scene, painfully cool clubs and a rich history, to others it is just an overhyped and expensive place to live. Is Berlin still "sexy but poor" or is it "rich, innovative but increasingly unaffordable to live in"?

With around 3.8 million inhabitants and 2 million dwellings, Berlin is not only Germany's largest city, but also its largest rental market, comprising an estimated 1.6 million housing units. After years of oversupply and active reduction of housing stock in the early 2000's, the market started to tighten around 15-20 years ago.

Rising construction costs alongside financing difficulties worsened the supply picture in recent months, with anticipated supply dropping to a ten-year low in mid 2024.[5] Consequently, Berlin turned into the nationwide symbol of an undersupplied market, with virtually non-existent vacancies and mounting rental pressure.

Due to strongly rising rents for unregulated assets of around 20% in the last five years, rental affordability weakened. Our latest findings for 2023/2024 suggest an affordability ratio of 39%, which is among the highest in Germany. Other major German cities like Munich or Frankfurt are standing in the mid 30s, thanks to higher income, while more regional cities like Leipzig are ranking in the low-to-mid 20s still.

When considering remaining disposable income after rent payments, the picture looks even more unaffordable. With ca. 3,000 USD (PPP) left, a median Berlin household has almost 25% less money to live from compared to European peers, making the city one of the most unaffordable in Europe, but still ranking below the likes of London or Paris in terms of combined affordability.

On the back of a growing population and persistent supply shortages, we expect mounting demand-supply-imbalances in Berlin in the years to come. Rents for prime new built assets are forecast to grow by another 25% until 2028, likely increasing pressure on affordability further. Consequently, commuter locations are likely growing in popularity.

Statistics

Affordability Ratio	38.8%
Disposable income after rent (PPP)	USD 3,061
Population / # of households	3.6m / 2.1m
Rent for 2-bedroom apartment (per month)	USD 1,570
Median household income (p.a.)	USD 48,500

Sources: Destatis, Oxford Economics, Statistik Berlin-Brandenburg, DWS, 2024

[5] Rolling annual permits, Statistik Berlin-Brandenburg

Sydney – Overlooked Gem in the Pacific

Market Specialist: Matthew Persson, Sydney

There is a reason Sydney is consistently ranked within the top 10 most livable cities in the world. The city boasts a temperate climate with plenty of sunshine all year round.

From its landmark harbor, numerous beaches, culturally rich mountains, all connected by modern and efficient transport systems. While the cost of buying a home here is amongst the most expensive in the world, renting may be more affordable than you think!

Sydney is home to 5.3m people[6] across 2.0 million dwellings[7] making it Australia's most populous city. Around a third of Sydney's population rents their place of residence and this is only expected to increase.

Over the past decade the Sydney residential market has undergone a gradual but structural change with not only a decline in the rate of home ownership, but time taken to purchase a property. Median dwelling values have nearly doubled with Sydney now at a 40% premium to the nearest Australian capital city.[8] This has led to pressure on borrowing capacity, down payments, and servicing costs. Today the average age of a first-time home buyer is closer to 40 years of age[9], in turn supporting demand for rental product.

In Sydney, apartment rents have significantly outpaced wage growth over the past 5 years which has seen affordability rates weaken from the mid 20% range to closer to 30% of median household disposable income.

However, when compared on a global scale Sydney remains well positioned in relation to cities such as London, New-York and Tokyo, which are closer to 40-50%. In addition, disposable income after rent also ranks well above global peers, making Sydney a very affordable rental city in a global context.

Statistics

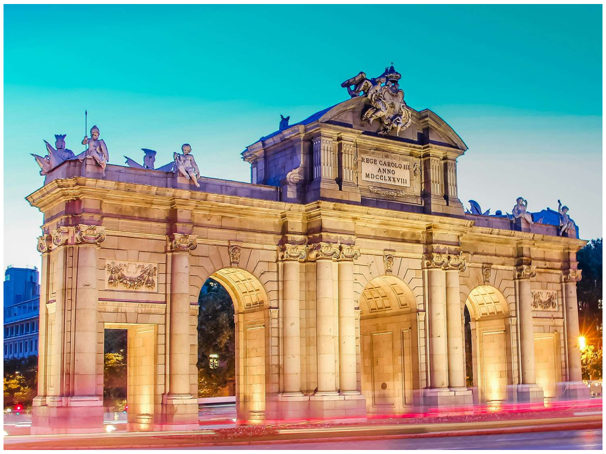
Affordability Ratio	28.0%
Disposable income after rent (PPP)	USD 5,323
Population / # of households	5.3m / 2.1m
Rent for 2-bedroom apartment (per month)	USD 2,178
Median household income (p.a.)	USD 94,400

Sources: Oxford Economics, Corelogic Housing market update, Soho, DWS, 2024

[6] 2023 Australian population statement
[7] Australian Bureau of Statistics, estimated dwelling stock, June 2022
[8] Corelogic Housing market update, June 2024
[9] Soho, January 2024

Madrid – Miami of Europe?

Market Specialist: Siena Golan, London



Madrid has been gaining traction in recent years as a desirable residential location not only for domestic but increasingly for international newcomers. Are Latin American migration, weather conditions and lifestyle turning it into the "Miami of Europe"?

Migration is certainly rising. To illustrate this, in 2022, more than 820,000 Latin Americans were living in Madrid, a 50% increase compared to 2015. The concentration of cultural activities, low municipal tax rates, and relative affordability in this city are key 'pull' factors.

Not only is Madrid home to world-class museums, including the Prado and Thyssen-Bornemisza, but offers wealthier residents luxury shopping options in areas such as Salamanca and Fuencarral. Madrid has the lowest tax rates in Spain, and new tax residents benefit from a cut in personal income tax, allowing them to deduct 20% of the total capital allocated to financial assets and the acquisition of a main residence if they are maintained during the following six years.

Economic growth in the Greater Madrid region is also outperforming both the Spanish and European averages. New jobs bring in young professionals and we see a virtuous cycle of growth and talent. The tech sector has a firm foothold in the city, but financial services, industry headquarters, and professional services are also key players in the office occupier market.

For international buyers, despite steep price rises in recent years, Madrid remains more affordable compared to European gateway cities, with prime housing prices at the end of 2023 at €9,400sqm, less than half that of Paris or London prices. These factors have worked together to achieve the strong population growth (in a European context) we have seen since the end of pandemic-related restrictions.

In terms of rental affordability, Madrid ranks in the middle of the pack. At 39%, affordability ratios are slightly above the European average, while disposable income of 4,200 USD/PPP is slightly ahead of global peers.

Statistics

Affordability Ratio	38.8%
Disposable income after rent (PPP)	USD 4,187
Population / # of households	7.9m / 2.8m
Rent for 2-bedroom apartment (per month)	USD 1,762
Median household income (p.a.)	USD 54,500

Sources: Oxford Economics, Idealista, DWS, 2024

San Francisco – “Surfers Paradise” or the “Aspen of California”?

Market Specialist: Brooks Wells, New York

San Francisco is a one-of-a-kind city that evokes strong feelings in people, with its stunning natural beauty, diverse culture, and innovative spirit. San Francisco is a hub of innovation and creativity, with a thriving tech scene and a culture of entrepreneurship.

San Francisco is home to around 1.5 million people, making it the smallest metropolitan area in the Bay Area region. The median household income for San Francisco is roughly $134,600, notably ahead of the national average. The share of residents with bachelor’s degrees in San Francisco is also well ahead of national norms.

San Francisco’s close proximity to Stanford University and the University of California, Berkeley, has created a pipeline of talent and innovation. San Francisco is also a hotbed of innovation in fields such as biotech, clean energy, and healthcare, with world-class research institutions and medical facilities.

While rents in San Francisco remain some of the highest in the nation, the absence of rent growth during a period of substantial inflation has made renting in the city much more affordable, especially in the context of well above average median income. This could be a bit of an “Aspen effect”. While not affordable to everyone due to high absolute rents, high local incomes are putting rents into perspective. With more than 7,000 USD on average left after rental payments, San Francisco is well ahead of global peers, while affordability ratios remain in the mid-range at 35%.

In the second quarter of 2024, the San Francisco apartment market continues to see improved operating performance. This comes after the city’s fall in population between 2019 and 2022 when tech employees working remotely led to an exodus that saw the city’s population decrease by around 7%, which particularly impacted the prime end of the market.

Net absorption remained positive in the first half of 2024, at 2,400 units, and the vacancy rate moved lower, it currently stands at 4.5%, down 30 basis points from a year earlier. Apartment rents in San Francisco continued trending upward in the second quarter of 2024, giving the city its longest period of rent growth in two years.

The positive trend in rents also puts San Francisco on track to catch up to the all-time high in rents that occurred in 2019, before the COVID-19 pandemic. The city is the only major metropolitan area where rents remain below their previous peak.

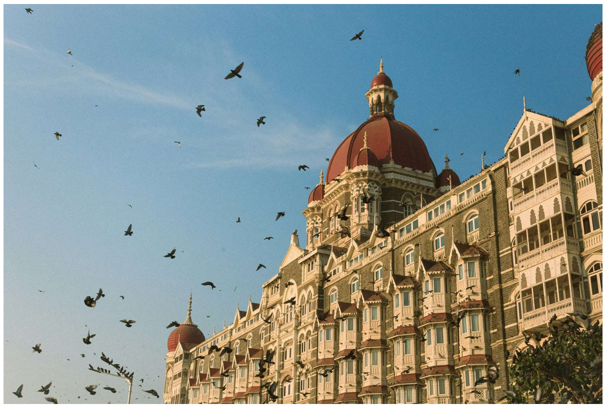
Statistics

Affordability Ratio	35.0%
Disposable income after rent (PPP)	USD 7,291
Population / # of households	0.9m / 0.4m
Rent for 2-bedroom apartment (per month)	USD 3,927
Median household income (p.a.)	USD 134,600

Sources: US Census Bureau, Oxford Economics, CBRE-EA, RealPage, CoStar, U.S. Census Bureau, DWS, 2024

Mumbai – The Workers Town

Market Specialist: Saeesh Kakodkar, Mumbai



Mumbai, where relentless work ethics meet vibrant culture and opportunity. It's a city of contrasts – gleaming skyscrapers shadow sprawling slums, luxury living coexists with daily struggles, and thriving industries bustle amidst overcrowded streets. But as the city continues to grow and housing prices skyrocket, can it keep up with the demand for affordable housing?

Mumbai is India's financial capital and most populous city in the country. With 20 million residents, it's a vibrant melting pot of cultures, languages, and socio-economic backgrounds.

The city's peninsular geography limits horizontal expansion, posing challenges for developers in securing land for new projects. While the administration supports transit-oriented construction, it maintains a relatively conservative floor area ratio (compared to other Asian mega-cities) to manage density. Consequently, there has been log-term undersupply and the rental/home affordability in Mumbai remains very low. An affordability ratio of almost 50% and disposable income after rent of less than 2,000 USD (PPP) reflect that.

Mumbai is transforming from a monocentric to a polycentric city due to rapid infrastructure development. Local trains are the city's lifeline, with many workers traveling long distances, emphasizing importance of well-connected commuter locations. Despite this, inter-suburb connectivity is still lacking. The ongoing 360km metro construction aims to address this issue.

Despite the immense potential to address the housing needs of the growing population, the residential rental yield in Mumbai stays low at 2.5 – 3.0%. Rental norms in India provide much power to occupiers and thus rents have not increased in proportion to the rise in property prices over the years. As a result, rental yields are generally too low to make BTR investments economically feasible.

Statistics

Affordability Ratio	49.2%
Disposable income after rent (PPP)	USD 1,735
Population / # of households	12.7m / 3.1m
Rent for 2-bedroom apartment (per month)	USD 457
Median household income (p.a.)	USD 11,100

Sources: Oxford Economics, DWS, 2024

New York – The Global Capital?

Market Specialist: Brooks Wells, New York

"If I'd lived in Roman times, I'd have lived in Rome. Where else? Today America is the Roman Empire and New York is Rome itself." – John Lennon

New York has historically been one of America's most prolific apartment markets in terms of both pricing and inventory. Except for faltering in 2020 and 2021 due to the COVID-19 pandemic, apartment market fundamentals in New York generally exceed U.S. norms.

New York has a population of over 11.8 million residents, the largest metropolitan area in the U.S. and home to the nation's most populous city. However, the population here has fallen recently. Still, New York has a high concentration of young adults – demographics critical to apartment owners – with 22% of the population between 20- and 34-years-old. That compares to the nationwide average of 20%.

New York also has America's largest apartment market with more than 2.5 million units, which is dominated by flats in high-rise buildings. The apartment market continues to be defined by many renters competing for a limited number of available dwellings.

Recent absorption figures point to New York remaining a vacancy and inventory outlier, with just 3.3% vacant at mid-year 2024; 220 basis points below the overall U.S. market. The vacancy rate currently remains under its long-term historical average of 3.6% as the demand to live in the Big Apple and the slow pace of adding new supply cannot be understated.

New York's diverse economy and its ability to add 82,900 jobs in June, along with some of the most expensive housing prices in the U.S., have recently boosted renter demand. Absorption levels rebounded in the second quarter of 2024, with quarterly totals at their highest since 2022.

The recent improvement in demand seems to have curbed the trend of moderating quarterly rent growth. Rents have grown by 2.2% over the past 12 months as of June 2024, which is well above the national average of 0.3%. Additionally, the number of buildings offering concessions has also declined compared to levels witnessed throughout the most recent winter season as owners have enjoyed an active spring leasing season.

In terms of rental affordability, at a ratio of almost 55%, New York stands out as a very expensive city. Despite high median household income, on average less than 4,000 USD are left after rental payments. This places the city in the global mid-range and only partially soothes rental pressure, making New York one of the most expensive housing markets globally.

Statistics

Affordability Ratio	54.6%
Disposable income after rent (PPP)	USD 3,674
Population / # of households	8.8m / 3.4m
Rent for 2-bedroom apartment (per month)	USD 4,422
Median household income (p.a.)	USD 97,150

Sources: US Census Office, Oxford Economics, CBRE-EA, RealPage, CoStar, U.S. Census Bureau, U.S. Dept of Labor, DWS, 2024

Seoul – Big Metro yet to see an institutional rental market

Market Specialist: Hyunwoo Kim, Tokyo

Home to 10 million residents and an emerging destination for trendsetters, Seoul is experiencing a surge in popularity due to its vibrant pop culture. Despite this, the city still lacks a fully institutionalised residential market, though institutional rental housing is beginning to emerge.

Seoul is one of the top "livable" cities in Asia, according to the Economist Intelligence Unit, thanks to its affordable and well-developed public transportation, superior IT connectivity, high standards of safety, and "fun activities" related to its increasingly popular K-pop and K-drama scenes. However, its residential market has not yet been institutionalised enough to attract institutional investors.

For the past 70 years, without institutional rental housing businesses, Korean homeowners developed their own rental system known as "Jeonse" or "deposit only." These unique leasing contracts required tenants to place a lump sum deposit, amounting to 50-90% of the house value, instead of paying monthly rent.

This system was beneficial for both landlords, who leveraged it to maximize capital returns with the belief in rising house values, and tenants, who preferred to keep their capital intact without monthly rent payments during the Jeonse period. In a market dominated by Jeonse, monthly rent was a secondary option for non-creditworthy tenants unable to place the upfront deposit.

However, as confidence in perpetual house value increases waned with the maturing Korean economy, more landlords began switching from Jeonse to monthly rents to secure stable income. Consequently, rental houses have become a more affordable option for tenants in Korea.

This trend has been more pronounced since 2022, as house prices have been increasingly under downward pressure from elevated mortgage rates. Average condominium prices per unit in Seoul fell by approximately 10% in June 2024 from their previous peak in December 2021, marking the first decrease in the last ten years.

This has led more tenants to consider monthly rent as a viable alternative to avoid the risks associated with house price decreases and potential impacts on their Jeonse deposits.

Despite the accelerating trend towards renting, at an affordability ratio of 39% and remaining income after rent of only 2,600 USD (PPP), Seoul is one of the most unaffordable cities globally.

Nonetheless, with this structural shift, we are witnessing the emergence of new Build-to-Rent (BTR) projects in the residential market, to serve the primary demands of young professionals and tech nomads. We expect to see further institutionalisation of the sector to meet the diverse residential demands in this vibrant city.

Statistics

Affordability Ratio	37.8%
Disposable income after rent (PPP)	USD 2,622
Population / # of households	9.4m / 4.1m
Rent for 2-bedroom apartment (per month)	USD 1,013
Median household income (p.a.)	USD 31,200

Sources: Oxford Economics, Economist Intelligence Unit, KB Kookmin Bank, DWS, 2024

London – Unstoppable or Unsustainable?

Market Specialist: Rosie Hunt, London

A rich history, vibrant culture and world-class amenities, it's easy to understand why many consider London the Best City in the World. But could London's housing crisis and sky-high rents be leading to an affordability crisis?

A dynamic and highly integrated global city with abundant employment and education opportunities, London has long been a magnet for workers and students from around the UK and much further afield. According to Centre for Cities, the number of jobs in London increased by over 1.4 million between 2010 and 2022, an increase of nearly 30%.

Over that time, housing has become far less affordable with the average house price 17.4 times average earnings in 2022, compared to 12.2 times in 2010. As such, demand for rental product has grown significantly.

London's housing market is characterised by a severe demand-supply imbalance and historic undersupply of housing. Development has failed to keep up with housing requirements. The most recent London Plan found 66,000 new homes were needed each year in order to satisfy demand, whereas net housing completions have averaged just 37,500 per annum over the last 10 years, a shortfall of close to 45%. The recently elected Labour government have announced a target of 80,000 residential units a year. Even if these levels are achieved, it will likely take many years to erode the demand overhang.

In addition, as a market dominated by private individual landlords, London's housing supply shortage has been further exacerbated by these landlords exiting the market, faced with significantly higher costs, alongside unfavourable and often complex regulation.

The demand-supply imbalance and a post-Covid demand surge has driven exceptionally strong rental growth in recent years, with rents growing by double-digits in both 2021 and 2022. As such, Londoners spend by far the highest proportion of their income on private rent of any UK region. Rental affordability now looks exceptionally stretched at close to 50%, one of the highest ratios in Europe, only second behind Paris and 12th highest globally.

That said, given higher salaries in London, the picture is arguably more positive when considering remaining disposable income after rent payments. On average, Londoners have ca. 4,275 USD (PPP) remaining after rent, ca. 10% above the European average. Nonetheless, based on the overall affordability score, London can truly be considered an expensive city.

Statistics

Affordability Ratio	47.8%
Disposable income after rent (PPP)	USD 4,273
Population / # of households	9.2m / 3.6m
Rent for 2-bedroom apartment (per month)	USD 3,404
Median household income (p.a.)	USD 85,400

Sources: Centre for Cities, London.gov.uk, ONS, Zoopla Rent Index, Oxford Economics, DWS, 2024

Tokyo – Fairwell to Deflation

Market Specialist: Hyunwoo Kim, Tokyo

Tokyo, the world's largest metropolitan area with 37 million residents, boasts the largest residential market in the Asia Pacific region. As it bids farewell to a three-decade-long deflationary period, the city is witnessing robust growth and diversification in residential demand.

In 2024, Tokyo's real estate market has hit a significant stride, driven by enduring low-interest rates, strong demand across multiple sectors, and an evolving landscape influenced by both domestic and international dynamics.

The consistent increase in property values since the early 2010s has been fueled by bold monetary easing policies, keeping mortgage rates remarkably low. For-sale condominiums in Greater Tokyo have reached record-high prices for two consecutive years between 2023 and 2024, driven by wealthy retirees and working professional couples living in inner-city areas.

Contrary to expectations of a downturn during the COVID-19 pandemic, Tokyo's residential market experienced heightened rental demand with stronger preference towards multi-functional living spaces. It has led to strong rental growth for larger family units with multiple bedrooms, catering to working couples and professionals adopting work-from-home arrangements.

The Tokyo residential market is expected to see healthy and consistent rental growth going forward, putting even more pressure on affordability ratios, which stand at around 38%. With c. 2,500 USD (PPP), remaining income after rent is also relatively low, making Tokyo one of the most expensive cities globally.

The stable performance in the rental market is underpinned by Tokyo's sound fundamentals, particularly strong net migration. It will be further boosted by low vacancy rates and constrained condominium supply arising from elevated construction costs and scarcity of the development lands in the urban areas.

Statistics

Affordability Ratio	37.8%
Disposable income after rent (PPP)	USD 2,462
Population / # of households	14.0m / 7.3m
Rent for 2-bedroom apartment (per month)	USD 1,003
Median household income (p.a.)	USD 31,850

Sources: Oxford Economics, Real Estate Economic Institute, REINS, Leasing Management Consulting, DWS, 2024

4. / Data Definition & Methodology

Complications and Compromises: Metrics Used

Measuring residential rental affordability is challenging due to varying indicators across different jurisdictions. To address this, two distinct concepts were employed to evaluate and compare the affordability of 75 major markets worldwide.

Rental affordability

The first concept focusses on affordability ratios, which measure net rents of a standardised apartment type against median household income. While local housing standards differ, a "2-bedroom apartment" was seen as relevant dwelling type for average families. In a regional context, typically all city submarkets were considered, but the area was limited to the city boundaries in larger agglomerations, as this corresponds to statistical data on median income.

However, in the absence of exact definitions and market data for individual submarkets, unit sizes and asset quality, results are reflective of local market practice. Therefore, average rents for unfurnished 2-bedroom apartments can vary locally.

Another factor that might cause deviations is the "tenant type", which might impact rent levels. In markets dominated by non-domestic expats or contingency workers with above-average incomes, affordability ratios may be less precise. This is particularly relevant in some APAC markets with strong growth potential, where such factors could influence results.

Additionally, the chosen "2-bedroom" apartment type might be less common in certain cities, especially in larger agglomerations with a strong commuting history, where 1-bedroom apartments are more prevalent.

Finally, average rents were either directly collected in USD or in local currency and then converted into USD before being compared against household income.[10]

Utility costs

Alongside rising rents, ancillary costs now account for a growing proportion of total occupancy costs, especially in Europe, where energy costs increased sharply in the wake of the war in Ukraine and other global crisis.

This trend is putting additional financial strain on households, especially those within the lower-income bracket. Rising ancillary costs are not only a concern for residents but also for institutional investors, from both performance and ESG perspectives.[11]

Consequently, total occupancy costs or ESG considerations play a significant role in determining the affordability of housing solutions as well. However, since these factors vary significantly worldwide, this report focuses solely on net rents in 75 global markets, without adding extra cost layers or complexity.

Disposable household income

On the income side, average disposable household income proved insufficient, so median disposable household income was used instead. Especially in large markets with strong discrepancies between income bands, average figures sometimes exceeded the median threefold.

In this regard, disposable income is considered after tax deductions and used in nominal terms. Local taxes, often referred to as tax wedge and representative of the respective tax burden, are ranging between 0%-35% for families in OECD countries (avg. 21.4%). Consequently, gross-net ratios can differ significantly.[12]

In addition, national statistics employ distinct data collection and calculation methods. For consistency, household income figures sometimes needed to be recalculated and used as an equivalent. For example, median disposable household income for European or APAC markets had to be derived from clearly defined income bands, leaving a certain margin for error when using the averages.

Nonetheless, results are deemed a good approximation when used to calculate rental affordability. In terms of clusters, an affordability ratio of below 30% was considered affordable, while a market is declared stretched, if this measure goes beyond 45%.

[10] Fixed conversion rate as of June, 2024, sourced from Oxford Economics

[11] Implications of Rising Energy Costs on European Housing Affordability, DWS, May 2022

[12] Income tax and employee contribution, married 2 children, 100%/67% two-earner couple, OECD, Taxing Wages, 2024.

Affordability ratios put into perspective

The second concept to analyse rental affordability focusses on remaining disposable household income after rental payments have been made. When converted into purchasing power parity (PPP), this number is a powerful indicator to compare the rental cost burden globally.

Especially in markets where household income is well above the national average, residual spending power is putting rental payments into perspective. For this conversion, IMF data as of April 2024 was used.[13]

Multitude of indicators influencing local affordability

City-level results are a good indicator of the tightness of local residential rental markets. However, these findings can sometimes obscure the local housing situation, especially in larger agglomerations, where out-of-town commuter locations were not included in the analysis.

Additionally, while median household income in the core city is a significantly better measure than average disposable income, it may not fully reflect the challenges low-income households face in finding affordable and suitable housing.

It's important to remember that the monetary value of commuting time and other non-monetary expenses are not included in the rental cost burden of residents, either. Moreover, our affordability assessment does not account for the time and effort required to find decent housing for an extended period. These factors certainly impact the affordability considerations of those planning to relocate.

This issue is particularly significant in expensive and tight mega cities, where many tenants struggle. Furthermore, having a place to live does not necessarily mean residents are satisfied with their choice in terms of size, quality, or location over the long term.

[13] Implied PPP conversion rate, IMF, July 2024.

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