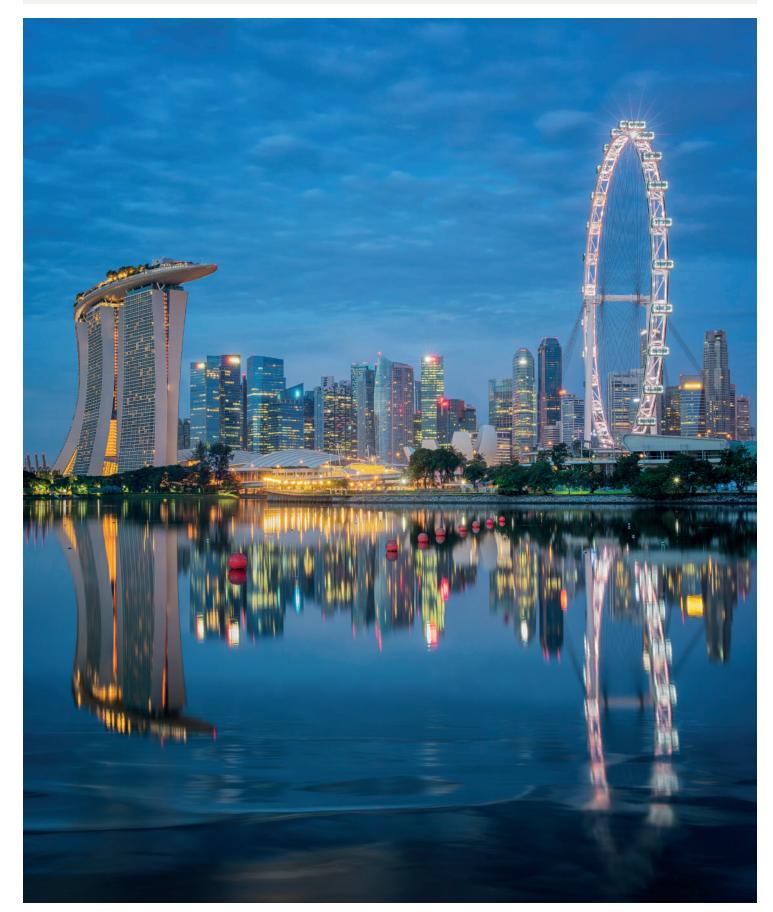
World Research - February 2023



Savills Prime Residential Index: World Cities





Prime residential prices • Rental values and yields • Global cities outlook



How could we follow the year that was 2021? 2022 saw the

post-pandemic flurry of activity begin to peter out in the latter half of the year, as economic uncertainty and rising interest rates discouraged buyers and sellers alike.

Rents, however, outperformed price growth; average rental growth across the 30 cities increased by four times the average capital value growth, at 2.8% and 0.7% respectively in H2 2022. The return of international students and executive tenants drove demand within the prime rental segment.

Despite falling transaction volumes toward the end of 2022, in 2023 we expect to see momentum in some cities. The prime residential markets of some European cities are providing stability in a period of uncertainty. Italian and Spanish cities, in particular, are forecast to record capital value growth above 2% as prime residential property remains a safe-haven for wealth preservation.



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A year of two halves

While cities are still in vogue, global capital value growth slowed during the second half of 2022. The prime rental markets, however, told a different, more positive, story

Last year was a year of two halves for global prime residential markets. Having rebounded in the wake of the pandemic, growth was sustained into the first half of 2022, but slowed in the second half of the year as the global economic environment weakened and interest rates rose.

Rental markets outperform

Prime rental markets were a bright spot last year. Across the 30 global cities we monitor, average prime rental values increased by 5.9% in 2022. This was driven by a lack of stock and rising demand, with rents outperforming capital values. Gateway cities, such as Singapore, New York and London, together with rising hubs Dubai and Lisbon, saw rental values increase in excess of 10% year-on-year.

Rental growth came as people continued to return to cities after the lifting of pandemicrelated restrictions, and as rapidly rising interest rates in the latter half of 2022 meant that more people chose to rent. The rebound in international travel was a factor too, by the end of 2022 international arrivals had recovered to between 75% to 80% of 2019 levels.

Globally, prime yields averaged 3.0% in 2022, and moved out the fastest in eight of our 30 cities, led by Dubai, Singapore and London,

Prime residential capital and rental growth

Average half year performance



Source Savills Research



with each city benefitting in particular from an increase in international tenant demand leading to significant rental growth.

Capital values

Capital values rose by an average of 3.2% across the 30 cities we monitor in 2022, with the second half of the year only contributing 0.7% as the deteriorating economic situation and higher interest rate environment took effect.

Miami and Dubai recorded the highest level of capital value growth in 2022, at 25.4% and 12.4% respectively. These markets are still relatively competitively priced by global standards, the low cost of living, tax regime and warmer climates attracting international and domestic buyers.

The global hubs of Singapore (+6.8%) and New York (+6.1%) also performed well last year, benefitting from an inflow of high net worth individuals setting up businesses. New York, in particular, recorded the second highest number of \$5m+ transactions since 2017.

Some cities felt the global economic turbulence more than others, particularly in the second half of 2022. Rising interest rates hit Sydney particularly hard, and earlier than other cities. Hong Kong's lingering pandemicrelated restrictions continued to hamper its prime residential markets and prime prices fell by -8.5%, however it remains the most expensive prime residential market in the world, with prices at \$4,070 per square foot.

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Recessionary con interest rate envir will weigh on prin property perform although the seco year holds some p economic growth Even though pr less mortgage-rel residential proper macroeconomic o sentiment. Many p and sellers will lik and see' approach market will drive p

On the horizon in 2023

The second half of the year holds potential for positivity

Recessionary conditions, a higher interest rate environment and inflation will weigh on prime residential property performance in 2023, although the second half of the

year holds some potential for global economic growth.

Even though prime residential is less mortgage-reliant than mainstream residential property, weaker

macroeconomic conditions will dent sentiment. Many potential buyers and sellers will likely adopt a 'wait and see' approach. A less active sales market will drive prime rental markets,

with rental value growth expected to

outstrip capital value growth once again this year.

We expect an average prime residential price growth of 0.5% across our 30 cities, some way down on the 3.2% achieved last year. The rarefied nature of prime residential, coupled with a general lack of stock in many cities, will prevent a sharper slowdown.

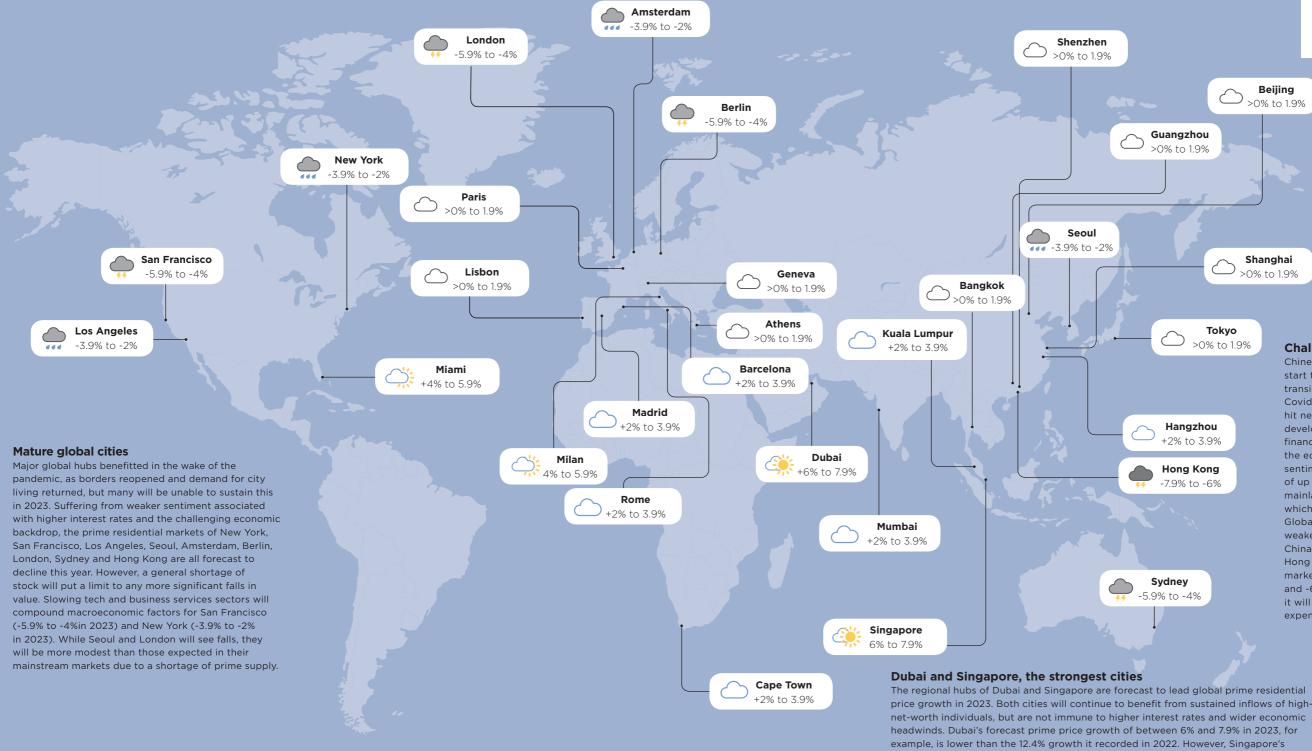
Political intervention in residential markets is one trend to watch as wider housing affordability remains an issue. Examples of this are already being seen with the introduction of rent caps in Portugal and the two-year banning of some foreign purchasers in Canada.

Global cities outlook

Following two years of staggering growth, the prime residential markets are set to slow in 2023. Of the 30 major global cities in the index, 17 will record slower capital value growth than in 2022. However, 13 cities are forecast equal or even slightly enhanced growth in 2023 and rental markets will remain a bright spot

Southern Europe growth still positive

Low to modest levels of capital value growth is forecast in the southern European cities of Lisbon, Athens, Rome, Milan, Barcelona and Madrid, where prime property is particularly coveted in times of economic turmoil as a safe haven asset and inflation hedge. Regulations have contributed to low levels of new supply, especially in Barcelona, where new prime projects are now struggling to get built. Buoyant rental markets make these cities appealing to investors. Lisbon, a star performer in 2022, looks set to see continued but slower growth, as it attracts a broader base of international buyers in 2023. Southern Europe's top performer in 2022, Milan, is expected to cement its position in 2023, with price growth of between 4% and 5.9%.







Challenges in China

Chinese cities will have a difficult start to the year, as the country transitions away from its Zero Covid policy. Transaction volumes hit new lows last year and the developer debt and real estate financing clampdown, coupled with the economic slowdown, have hit sentiment. Nevertheless, growth of up to 3.9% is forecast in the five mainland Chinese cities we monitor, which is comparable to 2022 levels Global macro conditions and a weaker demand from mainland China will have a big impact on Hong Kong's prime residential market, with falls of between -7.9% and -6% expected. Despite this, it will remain the world's most expensive prime residential market.

predicted prime capital value growth of between 6% and 7.9%, driven by a lack of supply at the top end of the market, is keeping pace with the 6.8% growth it recorded last year

Prime Residential Capital Values

A ASSESSMENT OF THE PARTY OF TH **Highs and lows**

Positive capital value growth continued throughout 2022, with average increases of 3.2% across the 30 cities in the index. However, rising interest rates and negative sentiment took a hold in the second half of the year Global city: Miami

Miami, Dubai and Singapore lead growth

Miami, Dubai and Singapore led global capital value growth in 2022. While lower than the highs of 2021, growth has been fuelled by pent-up demand from both international and domestic buyers, a lack of quality stock and the inflow of high net worth individuals, companies and family offices. New York also saw the second highest number of \$5m transactions since 2017.

Oxford Economics has forecast that by 2030 the number of households with an annual income exceeding \$250,000 will grow by more than 15% in each of these cities. In Dubai, the number of these households is also forecast to double, to just under 50,000 households, in the next seven years.

Milan, Lisbon and Cape Town outperform

Milan (+5.7% in 2022) is the top performing city in Italy and the second fastest rising prime residential market among the European cities we monitor. Demand has remained robust while a number of new developments have improved the quality of the prime stock in the city.

Lisbon, ranking top in the Savills Executive Nomads Index, saw average annual prime property values grow by 5.6% in 2022. Although the country's popular residency-by-investment scheme is under review for popular urban areas of the country and much of the Algarve, the city of Lisbon expects to continue to see an ongoing diversification from domestic to

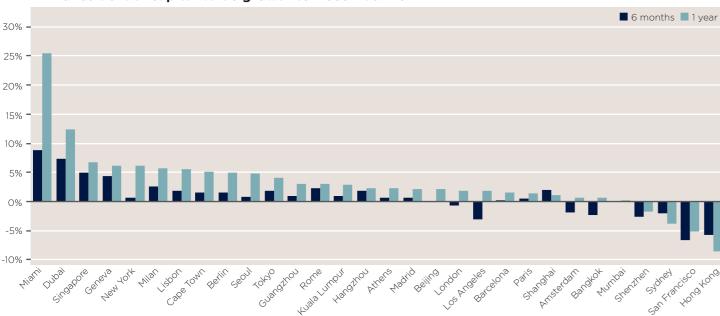
international demand in the near to medium term.

In 2022 prices grew by 5.1% in Cape Town, South Africa's largest metro area. The city's population is forecast to grow a further 11% by 2030, supporting growth in its prime residential market, although prices are yet to recover to their pre-pandemic price level.

Asian cities

Seoul and Tokyo were the two strongest performing cities in the Asia Pacific region last year, with prime prices rising 4.9% and 4.1% respectively. Despite the impact of the deteriorating economic situation on national housing markets, the prime sector has shown resilience. Prices maintaining positive growth due to an accumulation of factors including

Source Savills Research



Prime residential capital value growth to December 2022

rising build and labour costs, scarcity of land and the 'wait and see' attitude of purchasers. With annual growth ranging from +3% to

-2%, the picture is mixed across major Chinese cities. The easing of Covid-19 restrictions towards the latter half of the year saw improved performance in the second half of 2022 in Hangzhou (1.8%) and Shanghai (2.0%). However, nationally low prime property volumes, the indebted real estate sector, weak consumer confidence and slower economic growth have all put downward pressure on price growth compared to previous years.

In Hong Kong, pandemic restrictions and rising interest rates weakened sentiment in the already slowing luxury residential market. This suppressed transaction volumes causing pricing declines across all price brackets except the ultra-prime residences. Average prime prices fell by 8.5% in 2022.

Shenzhen, San Francisco and Svdnev

Shenzhen (-1.6% in 2022) and San Francisco (-5.2% in 2022), two cities largely dependent upon their technological sectors, have particularly felt the impact of economic headwinds that unfolded in the latter part of 2022. Changing workforces and working patterns in the tech sector has been a factor causing falls in these cities.

Sydney's prime market recovered strongly in 2021 as the country opened up in the wake of the pandemic, with prime prices rising by 8% and reaching new records by December 2021. That changed in 2022 as the Reserve Bank of Australia increased interest rates. Properties, according to Savills experts, are now more likely to continue to trade close to or at asking price in 2023.

Average prime residential capital value growth



2023 (forecast)

Source Savills Research

Hong Kon New York Geneva Shanghai Tokyo London Singapore Seoul Sydney Shenzhen Los Ange

Paris Beijing San Franc Guangzho Milan Miami Rome Lisbon Hangzho Berlin Athens Mumbai Amsterda Bangkok Dubai Madrid Barcelona Kuala Lun Cape Tow



Prime residential capital values - Top 6 world cities

Prime residential capital values around the world

| City | Prime capital value Dec 2022 (US\$ psf) | Prime capital value Dec 2022 (€ psm) |
|-------|--|---|
| ng | \$4,070 | €41,100 |
| c | \$2,680 | €27,100 |
| | \$2,350 | €23,700 |
| | \$2,060 | €20,800 |
| | \$1,950 | €19,700 |
| | \$1,820 | €18,400 |
| e | \$1,780 | €18,000 |
| | \$1,760 | €17,700 |
| | \$1,720 | €17,400 |
| า | \$1,670 | €16,900 |
| les | \$1,570 | €15,900 |
| | \$1,550 | €15,600 |
| | \$1,520 | €15,400 |
| cisco | \$1,500 | €15,200 |
| ou | \$1,480 | €15,000 |
| | \$1,450 | €14,600 |
| | \$1,440 | €14,500 |
| | \$1,330 | €13,400 |
| | \$1,280 | €12,900 |
| u | \$1,260 | €12,700 |
| | \$1,160 | €11,700 |
| | \$1,070 | €10,800 |
| | \$1,040 | €10,500 |
| am | \$970 | €9,700 |
| | \$810 | €8,100 |
| | \$730 | €7,300 |
| | \$710 | €7,100 |
| a | \$650 | €6,500 |
| npur | \$270 | €2,700 |
| vn | \$260 | €2,600 |
| | | |

Rental values grow

Rents outpaced capital values last year, increasing by an average of 5.9% in 2022 and, bringing total growth to 10% in the last two years

Rents rising in megacities

As the majority of nations eased pandemic-related restrictions, 2022 marked the return to the city. By the end of 2022 international arrivals stood at to 75% to 80% of 2019 levels (according to Visa International Travel, VISIT). The return of international students and corporate demand has supported prime rental markets.

New York prime rents recovered to above pre-pandemic levels, assisted by a buoyant domestic market and growing demand for fully-serviced luxury apartments offering amenities, security and lifestyles services. As a result, median rents for properties in doorman buildings increased by 53% from lows of \$3,270 in December 2020, to almost \$5,000 at the end of 2022.

In Singapore, prime residential rents grew by 26.2% in last year as the country

30%

25%

10%

Prime residential rental value growth to December 2022

opened up and saw strong demand from students, expats and high net worth individuals relocating to the city. Delayed completions of new prime stock further contributed to the significant rental rise seen in 2022.

Prioritising the quality of life

Lisbon and Dubai have both benefitted from an influx of lifestyle purchasers, attracted to these cities' climates, and quality of life on offer, supported by strong business environments, with prime rents up 25.4% and 22.9% respectively last year.

In spite of recent price appreciation, Lisbon remains competitively priced for a western Europe capital city, with prime rents 23% lower than Berlin, and 55% lower than London. However, as rents continue to rise, a rental cap has

been enacted by the government in a bid to cool Lisbon's rental market.

Varied picture in Asia Pacific

In Sydney, prime rental markets have been boosted by demand from prospective homebuyers putting their plans on hold as rates have risen. This has contributed to the lack of stock, driving prime rental growth to 10.9% in 2022.

Still grappling with Covid-19 restrictions throughout 2022, the Asian cities of Hong Kong and Bangkok are yet to see the return of international tenants to pre-pandemic norms. Restricted source markets have also dampened growth levels in their prime rental markets. That's expected to change this year, however as China opens up and remaining restrictions across the region are lifted.



New York

Hong Kong

Index standouts



Singapore Singapore saw the highest prime rental growth across the Index in 2022

Lisbon





New York Rents in the city

recovered to above pre-pandemic levels

Sydney City's rental market is boosted by prospective homebuyers putting their plans on hold

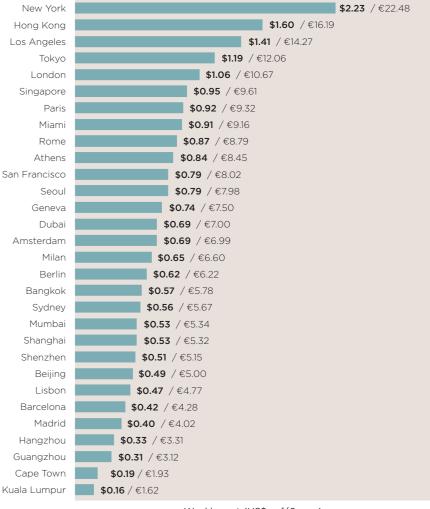
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Source Savills Research

■ 6 months ■ 1 year

Where do rents currently stand?

Weekly rent comparison December 2022



Prime Residential Yields

Holding steady

On average, prime residential gross yields have remained stable at 3.0% in 2022. Yields have largely held steady since December 2020, fluctuating by just 10 bps during the pandemic

yields to rise above pre-pandemic levels.

London rose by +25 bps to 3.2%; the city

Over the same period, prime yields in

remains a global higher education hotspot,

and international student demand further

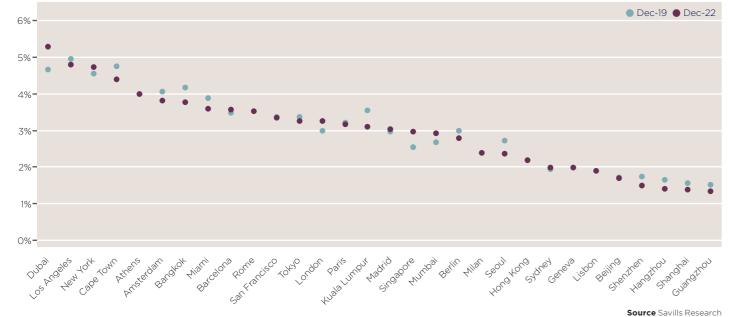
accelerated the lack of prime stock in the

UK capital. The Spanish cities of Barcelona

Yields have moved out fastest in most international global cities, where rents have risen particularly quickly during the pandemic recovery. Cities such as Dubai (+60 bps, to 5.3%) and Singapore (+40 bps, to 2.9%) have seen substantial inflows of international tenants, leading average

Average prime residential yields by city

December 2022 compared to December 2019



and Madrid also experienced yield

demanding luxury housing.

increases driven by re-opening borders,

Yields in Chinese cities have fallen

since the onset of the pandemic as rents

increased more slowly than capital values.

permitting the return of executive tenants

In an environment of rising interest rates, the costs associated with buying, holding and selling a prime residential property are an important consideration

Rising interest rates are causing buyers to be mindful of the associated costs when transacting a property. For an international buyer, these costs can vary substantially across jurisdictions. Expressed as a percentage of property prices (see chart), they range from under 10% in Chinese cities to 35% in Singapore. In an increasingly competitive market, Singapore's government has maintained their

Singapore

Global city: London

While the prime rental market

remained healthy through most of 2022,

the last few months of the year saw

leading landlords to reduce rents.

demand begin to fall in China's major

cities amid wider domestic uncertainty,

Global city:

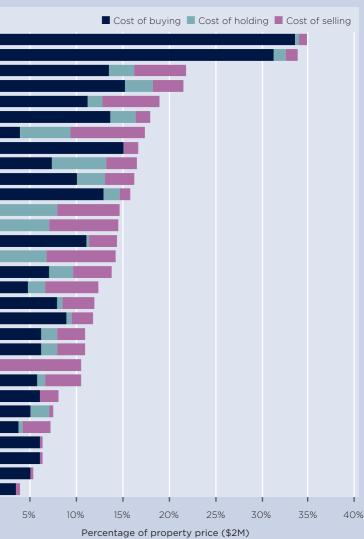
Hong Kong Cape Towr Barcelona Lisbon Sydney New York Mumbai Tokyo Madrid Amsterdam Miami Los Angeles Berlin San Francisco Paris Seoul Athens London Rome Milan Bangkok Kuala Lumpur Dubai Shanghai Geneva Beiiina Hangzhou Guangzhou Shenzhen 0%

Note Our scenario assumes a non-resident overseas buyer purchasing a \$2 million property. This is for use as a second home for less than nine months of the year over a five-year hold. No capital growth has been applied, avoiding the complication of having to forecast that for each city.

Buy. Hold. Sell.

Additional Buyer's Stamp Duty (ABSD) at 30% for foreign buyers purchasing any residential property.

In comparison to other regions, North American cities cost of ownership comprises a substantial share of the buying, holding and selling cost of a property. These costs are largely comprised of annual property tax and house insurance.



Cost of buying, owning and selling a US\$2 million residential property

Source Savills Research



Savills Research

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