



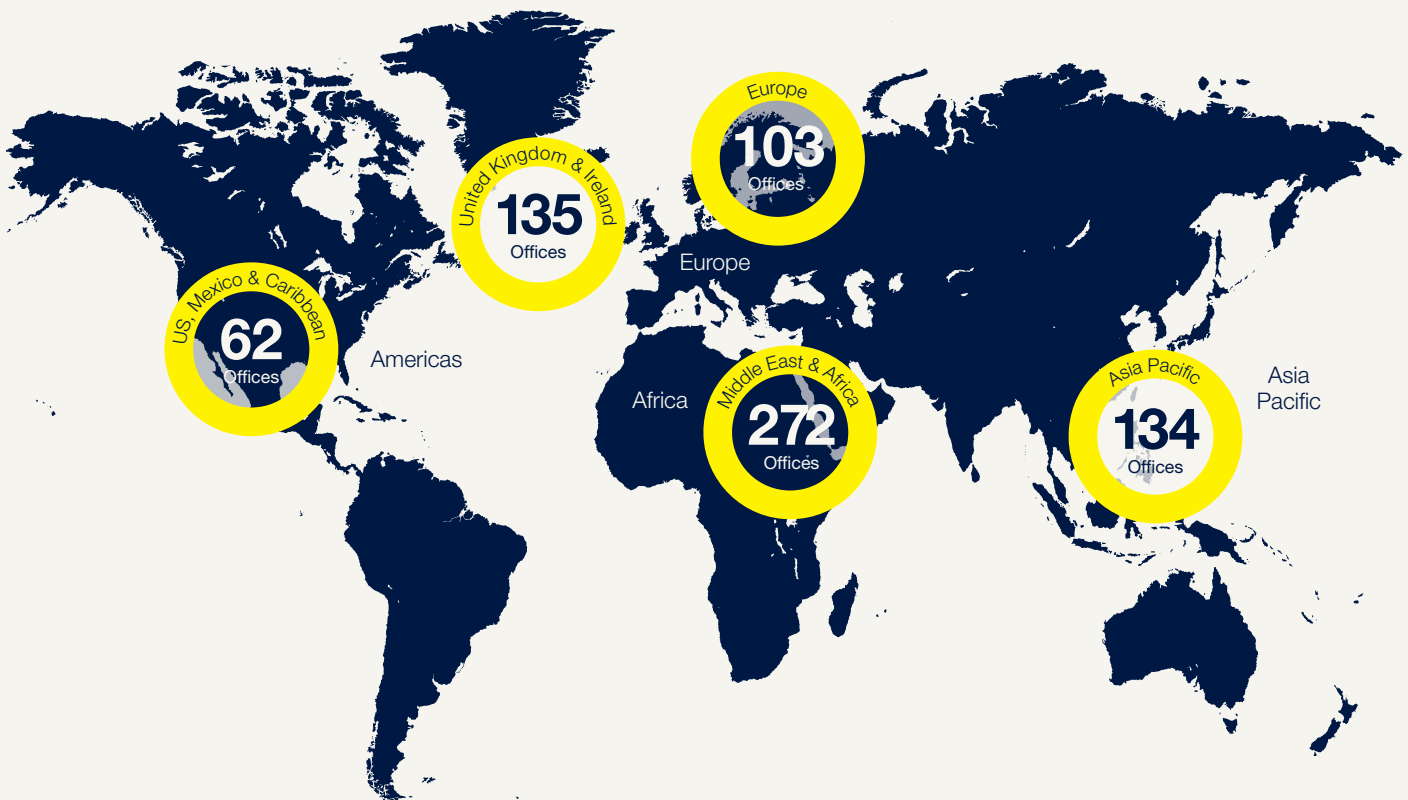
World Office Yield Spectrum

2H/2016



Savills global presence

More than 700 owned and associate offices worldwide



UK, Ireland & Channel Islands

England
Guernsey
Ireland
Jersey
Northern Ireland
Scotland
Wales

Asia Pacific

Australia
Cambodia
China
Hong Kong
India
Indonesia
Japan
Macau
Malaysia
Myanmar
New Zealand
Philippines
Singapore
South Korea
Taiwan
Thailand
Vietnam

Continental Europe

Austria
Belgium
Croatia
Denmark
Finland
France
Germany
Gibraltar
Greece
Italy
Luxembourg
Monaco
Montenegro
Netherlands
Norway
Poland

Portugal
Russia
Serbia
Spain
Sweden
Switzerland

Middle East & Africa

Bahrain
Botswana
Kenya
Mauritius
Mozambique
Namibia
Oman
Qatar
Seychelles
South Africa
United Arab Emirates
Zambia
Zimbabwe

Americas, Canada & Caribbean

Bahamas
Barbados
Canada
Cayman Islands
Colombia
Grenada
Mexico
Panama
St Kitts & Nevis
St Lucia
US

Introduction



With investment capital becoming more global in its search for returns and diversification, the need for a standardised set of indicators to make sense of opportunities, risk and return expectations has become critical.

The Savills/Deakin University World Office Yield Spectrum is designed to fill a void in market knowledge.

For too long the global property investment community has been denied a credible, factual yields series which can be reliably used to compare 'apples with apples.' This unique global publication is the culmination of substantial work by dozens of researchers in the international Savills team.

Savills Research trusts you find this body of work useful, illuminating and of value to you in your endeavours.

As always your thoughts, feedback and ideas are most welcome. Please feel free to contact your Savills representative with regard to this publication.

Methodology



Market Yields

This yield is derived by capitalising current market rents (Net Face) against current capital values for office buildings. The Net Face rent is the rent payable by the tenant excluding both statutory and operating outgoings (recoverables) and includes the value of any incentive paid to the tenant by way of fitout, cash, rental rebate or rent free. The capital value is calculated to be for the office component only and excludes retail, excess car parking, signage, storage and other "non-office" sources of income.

Effective Yields

This yield is derived by capitalising current market rents (Net Effective) against current capital values for office buildings. The Net Effective rent is the rent payable by the tenant excluding both statutory and operating outgoings (recoverables) and **excludes** the value of any **incentive** paid to the tenant by way of fitout, cash, rental rebate or rent free. The capital value is calculated to be for the office component only and excludes retail, excess car parking, signage, storage and other 'non-office' sources of income.

Weighted Average Cost of Capital (WACC)

The WACC is derived by having reference to the rents described above, the rental growth outlook and the management fee recoverable from owning the building (in sum a proxy for equity) and the current cost of debt. Using a 30 percent/70 percent equity/debt split, a WACC is calculated.

Accretive Premiums

By subtracting the effective and market yields derived above from the WACC we can calculate the 'accretion' inherent in each market using the metrics as described.

Market Risk Premiums

Having reference to the market yield calculated above we subtract the risk free rate (10 year bond) then add the expected annual income growth rate to establish the 'expected return for risk.'

Effective Risk Premiums

Having reference to the effective yield calculated above we take that yield, subtract the risk free rate (10 year bond) then add the expected annual income growth rate to establish the 'expected return for risk.'

World Cities



The past six months has seen the world move into more difficult territory – unsettled political environments are adding to volatility in capital markets and are reflected in strong moves in equity markets, in the pricing of debt, in official interest rate movements and in currency movements.

Economic indicators in the United States point to the beginning of economic recovery however the quality of the recovery is not as strong as may be desired. Europe is fragile, not least due to repercussions following the decision of Britain to exit the EU but political instability and violence – stimulatory policies remain in place. Asia remains tied to the fortunes of China and a great deal of volatility in the region is symptomatic of current affairs in China. Japan ponders more stimulation.

The capital markets have been volatile over the six months to end of June 2016 with the S&P500 finishing the six months almost unchanged having fallen over eight percent in January and recovering over the ensuing months. European bourses fared little better with most indices little changed or slightly down over the six months to June 2016. Bourses in Asia have been generally weaker over the first six months of 2016.

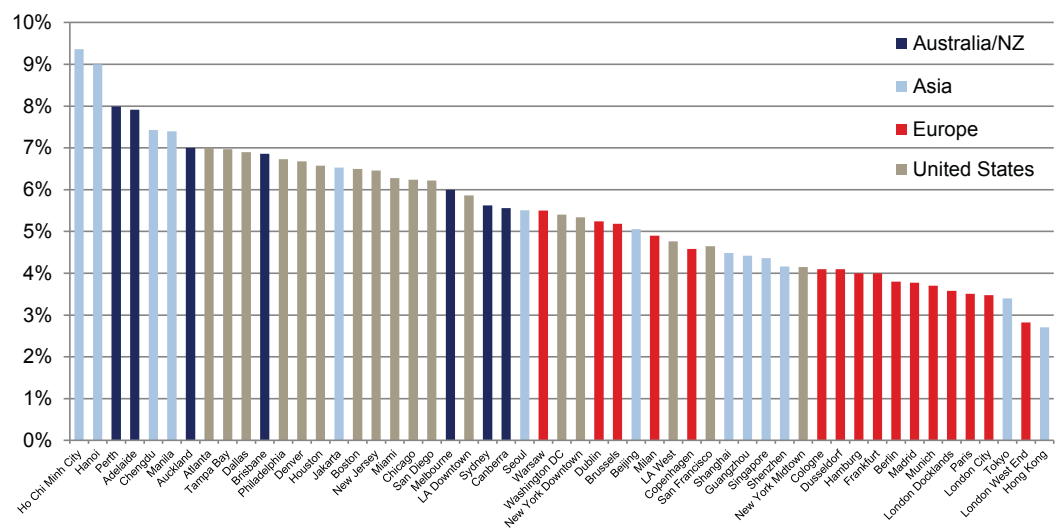
10 year bond yields have fallen by an average of 50 basis points around the world in the past six months and average around 1 percent with negative rates in Japan and Germany.

Much of what happens in 2017 and beyond will be dependent on the course the US Federal Reserve takes with regards to interest rates. Chairman Yellen has made it perfectly clear that movements will be 'data dependant', so we wait. The movements in US interest rates will determine how currencies behave, how trade flows and how capital moves around the world.

Also highly influential will be the outcome of the US Presidential election in November 2016.

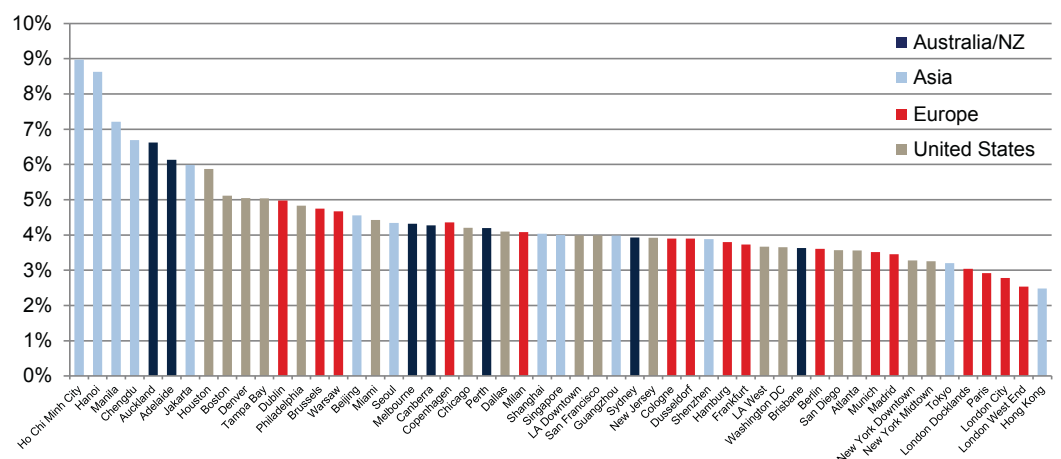
Risk premiums of between 2 percent and 3 percent in most office investment markets around the world continue to look like fair value so we anticipate ongoing strong demand to invest in office property globally.

World Office CBD Grade A Market Yields (percent) by Region and City June 2016



Source: Savills Research

World Office CBD Grade A Effective Yields (percent) by Region and City June 2016



Source: Savills Research



Tony Crabb

National Head – Research Australia

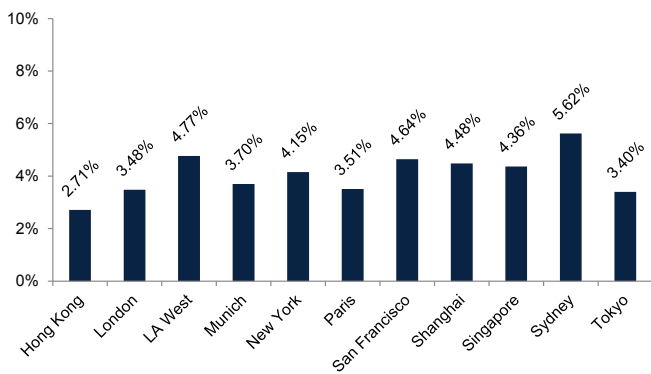
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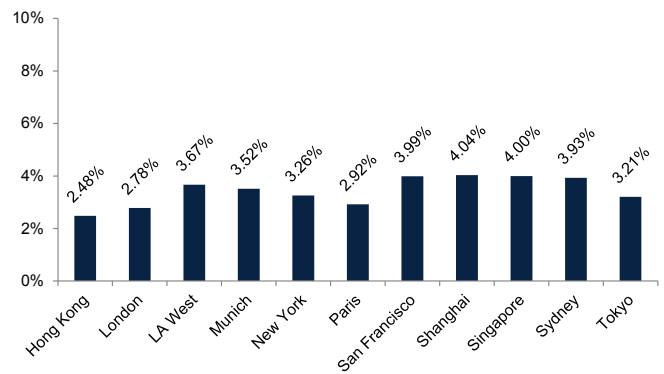
World Cities/CBD/Grade A Office

Market Yields June 2016



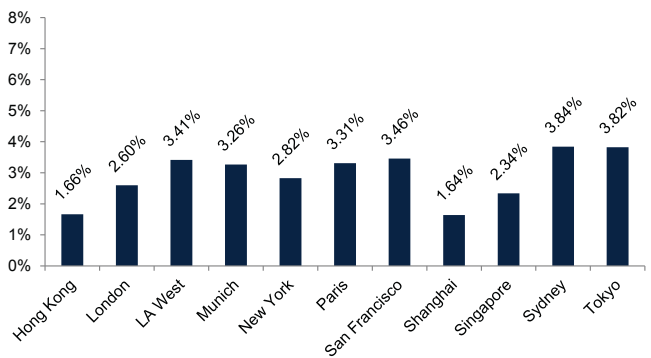
Source: Savills Research

Effective Yields June 2016



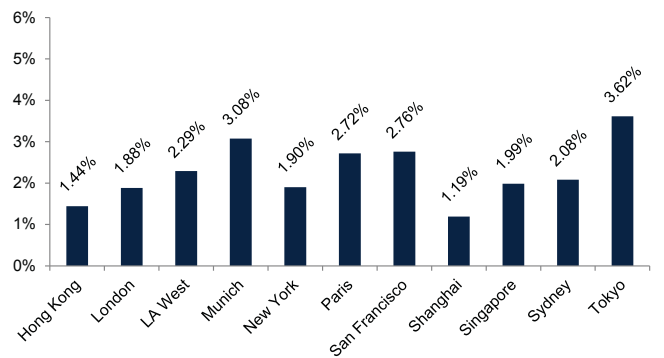
Source: Savills Research

Market Risk Premium June 2016



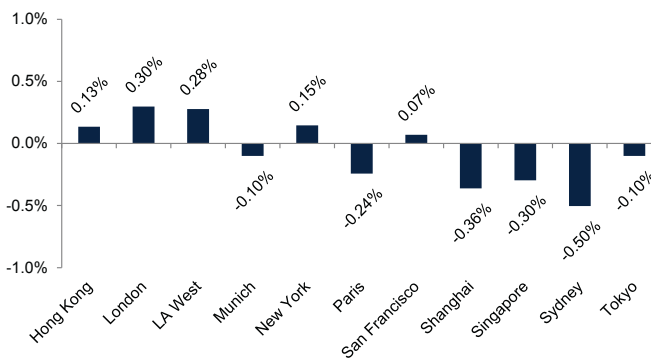
Source: Savills Research

Effective Risk Premium June 2016



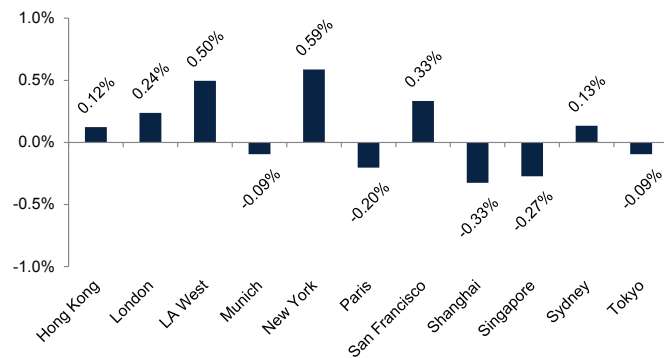
Source: Savills Research

Market Yield Change December 2015 – June 2016



Source: Savills Research

Effective Yield Change December 2015 – June 2016



Source: Savills Research

Asia



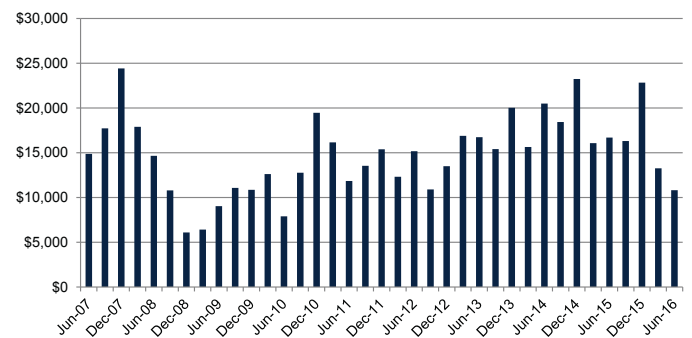
Asian investment markets were mixed over the first half of 2016, ending on a note of Brexit induced uncertainty.

Asian investors have continued to display a limited appetite for risk outside their home markets (although Asian outbound capital remains significant) while domestic volumes have been dictated by local market cycles and policy direction. Our data suggests that yields have hardened marginally across most major office markets in the region with sharper falls registered in Jakarta and Manila. While competition for investment grade property remains a feature of global markets and a raft of uncertainties continues to unnerve market players in the second half of 2016, including central bank policy direction, Brexit negotiations and the US Presidential election, it is difficult to foresee yields being pushed out in the short term.

While Japan's outlook has moderated thanks to global uncertainties and a strong Yen, an investment case remains and cap rates have continued to tighten. Ultra-low borrowing costs have continued to support a yield spread of three percent or more, even for the most prime assets. In China a quiet first half may give way to a more active second as a growing weight of capital chases limited income generating opportunities. In Hong Kong, end-user activity has continued to dominate en-bloc trades while rental growth looks to be close to the peak of its cycle. Singapore's ample supply of offices, a spluttering economy and government cooling measures should continue to result in low volumes.

Asian Office Property Sales (US\$ million)

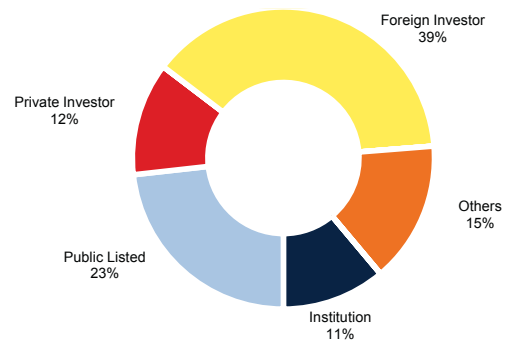
June 2007 – June 2016



Source: RCA/Savills Research

Asian Office Property Buyer Profile

12 months to June 2016



Source: RCA/Savills Research



Simon Smith

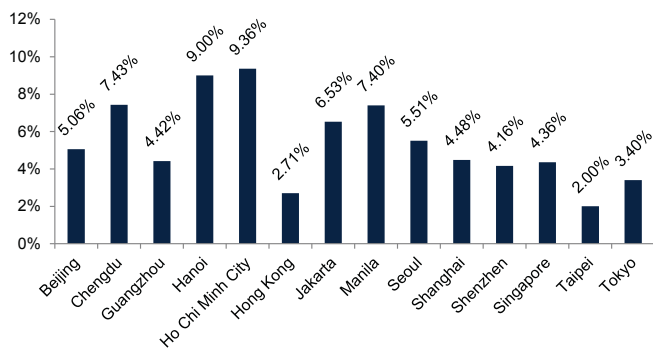
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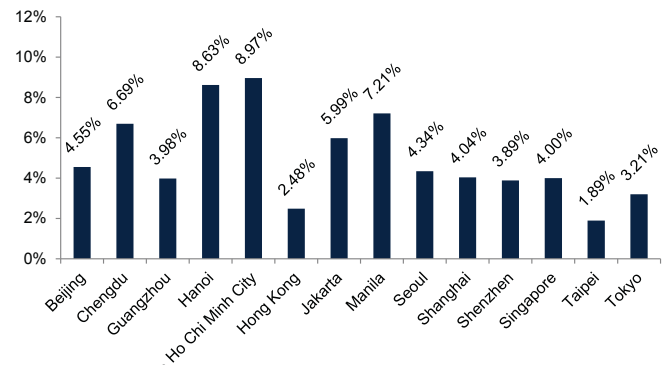
Asia/CBD/Grade A Office

Market Yields June 2016



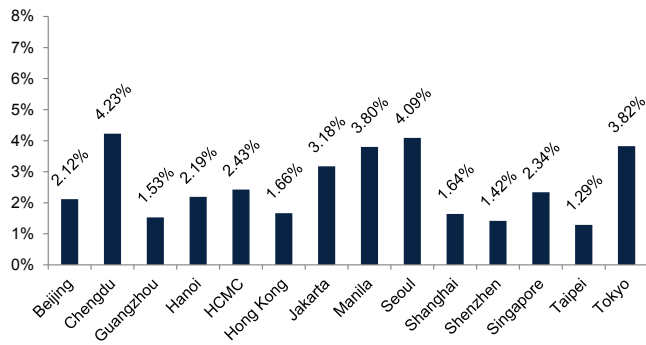
Source: Savills Research

Effective Yields June 2016



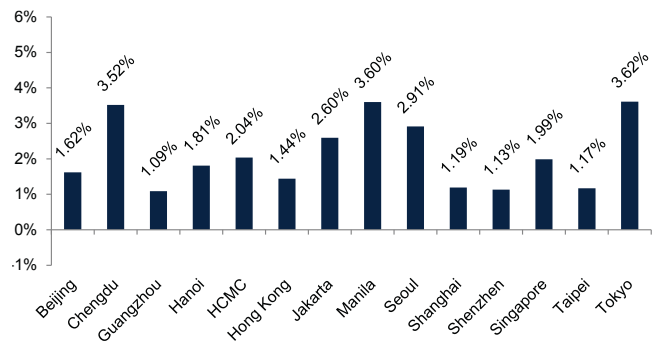
Source: Savills Research

Market Risk Premium June 2016



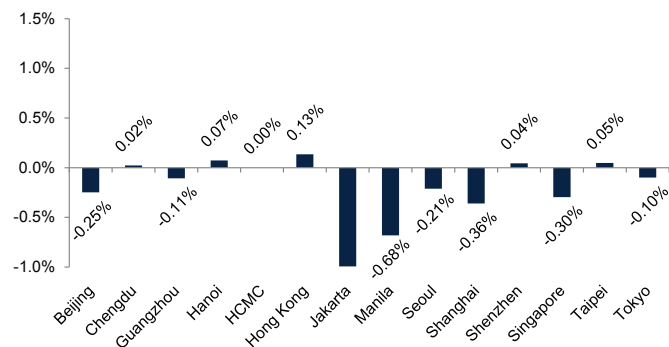
Source: Savills Research

Effective Risk Premium June 2016



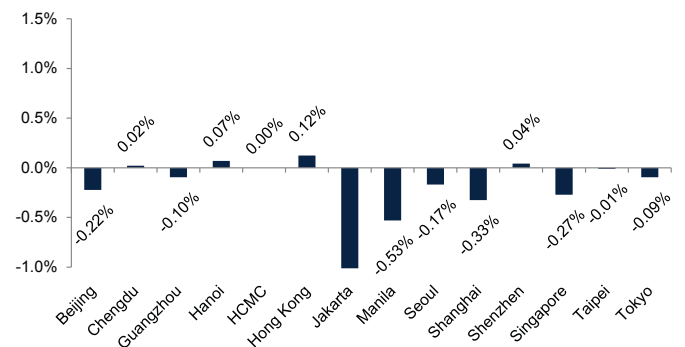
Source: Savills Research

Market Yield Change December 2015 – June 2016



Source: Savills Research

Effective Yield Change December 2015 – June 2016



Source: Savills Research

Europe



The run-up to the referendum on EU membership saw a steady slowing in investment activity in the UK, particularly in asset classes where larger lot sizes are more prevalent.

We have not yet seen much movement in pricing, either in the weeks before the Brexit result or immediately after. However, we have seen a dramatic rise in opportunistic investor interest in the UK, most of whom are focusing on secure income opportunities where prices might have fallen due to the referendum result.

Unlike previous cycles the UK commercial property markets are not facing a speculative development bubble, nor have we seen a closing of the yield spread between prime and secondary assets. Both of these indicators show that the market was taking a very realistic attitude towards risk in the run-up to the referendum, and this should limit the downside for both the investment and occupational markets.

Early indications are that the majority of deals that were under offer around the referendum date have gone through unchipped, though some have either been delayed or subject to 0-5 percent reduction in price. Clearly the UK is facing a sustained period of uncertainty, and this will impact on occupational and investment deal volumes. However, the underlying strength of the occupational markets (low vacancies and limited development pipeline) should ensure that the floor for capital values will be comparatively higher than in previous more broad-based downturns. This will probably mean that some opportunistic investors are frustrated at the lack of distressed pricing. However, there will be deals to be done and some will undoubtedly be at attractive prices.

Government bond yields have fallen in the major economies of Europe, reflecting perceived risks to future economic growth, while stock markets remain volatile. Against this

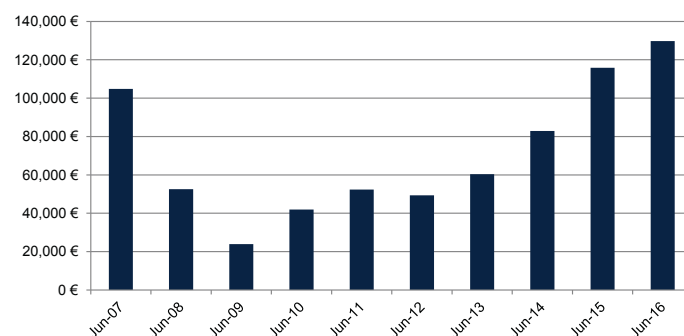
backdrop the income returns of prime European real estate still compare favourably and we believe that it will continue to attract investor interest.

After a slow start of the year, investment activity picked up during the second quarter. In the first half of 2016 total commercial property investment volume in European countries (excluding the UK) covered by Savills Research was up one percent compared to the same period last year. If we include the UK, investment volumes were down seven percent.

In most European countries, the lack of quality product remains a major constraint to investment volumes. Due to uncertainty following the outcome of the British EU referendum we expect to see a return to quality in most core European cities, whilst secondary markets are more exposed to negative sentiment, weaker demand and therefore, price corrections.

Europe and UK Office Property Sales (€ million)

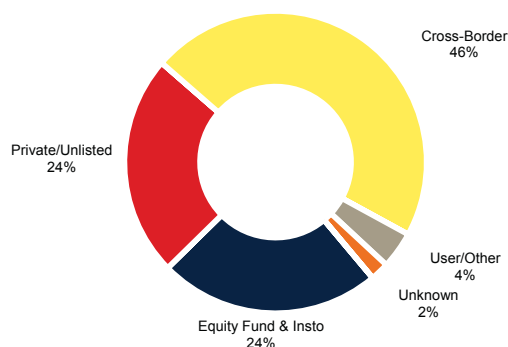
June 2007 – June 2016



Source: Savills Research

Europe and UK Office Property Buyer Profile

6 months to June 2016



Source: Savills Research



Lydia Brissy

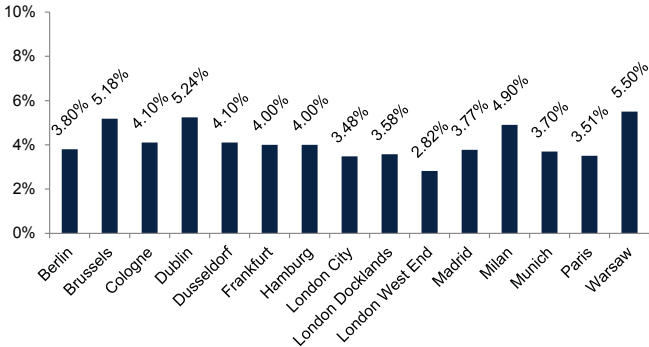
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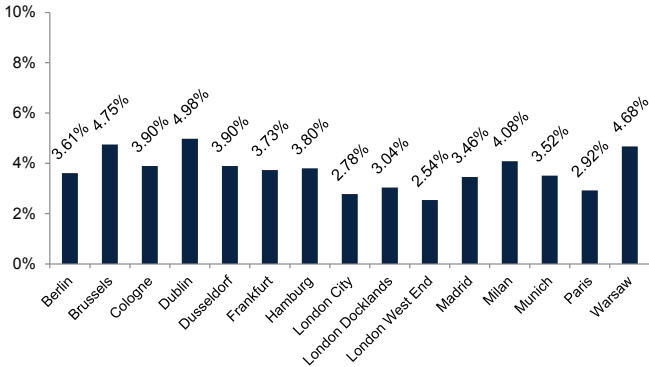
Europe/CBD/Grade A Office

Market Yields June 2016



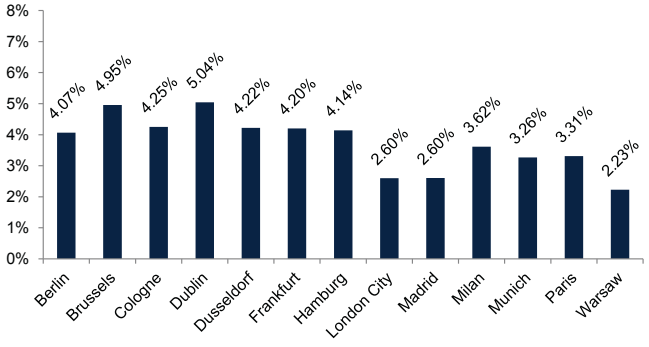
Source: Savills Research

Effective Yields June 2016



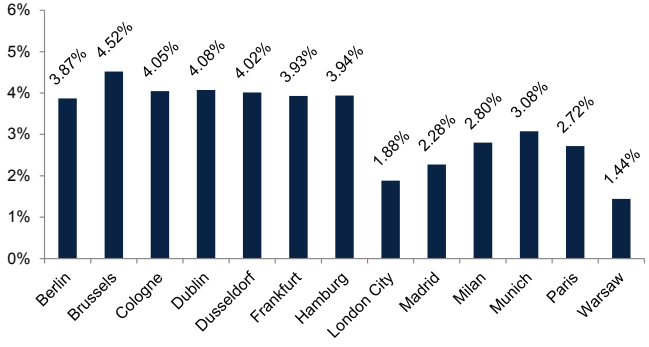
Source: Savills Research

Market Risk Premium June 2016



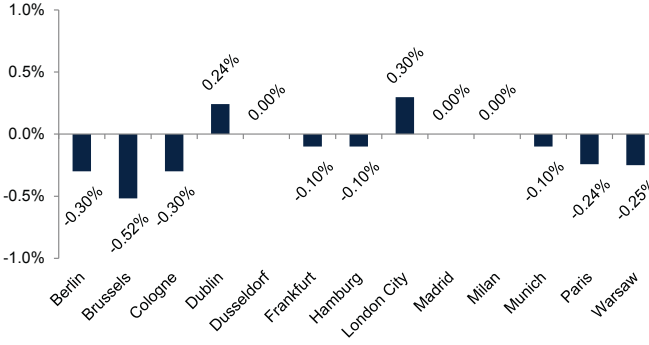
Source: Savills Research

Effective Risk Premium June 2016



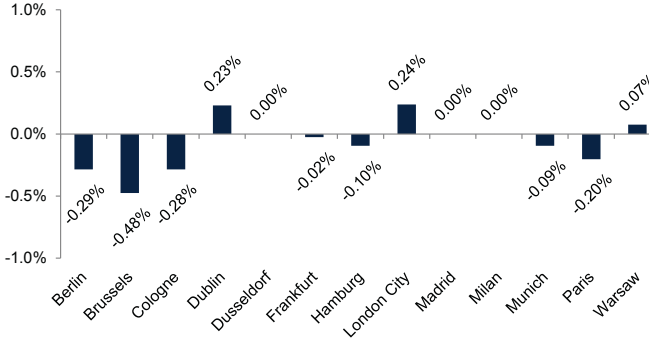
Source: Savills Research

Market Yield Change December 2015 – June 2016



Source: Savills Research

Effective Yield Change December 2015 – June 2016



Source: Savills Research

United States



Gateway markets dominated commercial property sales in the US during 2013 and 2014.

As expected, investors have been taking a more granular approach of late – limited options in the core, cap rate compression and the pursuit of higher yield has pushed more buyers to alternative geographies and properties. Investors have ferreted out assets on the edge of core markets. Chinese investors remain particularly keen on biotech and life science buildings in South San Francisco. Landlords in nearby Burlingame are hoping that demand will be sustained long enough (and push far enough out in the market) to give them their first material rental rate growth and asset value appreciation in several cycles.

The push of investors to secondary markets often follows the flow of employers in tech, pharmaceuticals and finance to regions that provide lower costs of living and doing business relative to top metros such as New York City, Boston and San Francisco. Investors identified metro areas such as Raleigh/Durham, Salt Lake City and Portland, Oregon quite some time ago, now some are turning to lesser known and smaller markets such as Nashville and Pittsburgh, as well as micro-markets such as Fulton Market in Chicago and Miami's Design District.

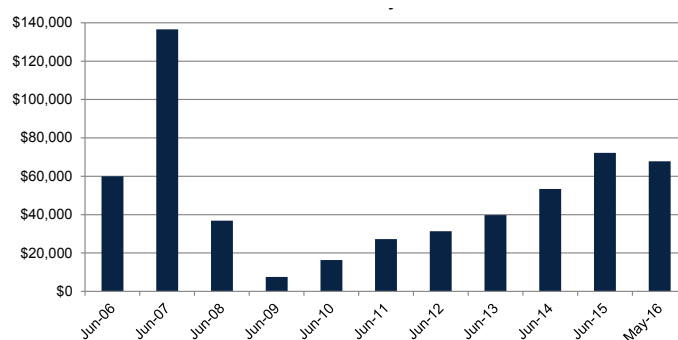
Foreign banks and pension funds have also been active in non-gateway major metros such as Philadelphia, Baltimore and Miami – making first-time purchases in these markets. Some cross-border buyers have become more comfortable with properties in suburban and ex-urban locations as yields are often 150 to 200 basis points higher than assets within the urban core. There is still a limit to how adventurous institutional buyers will be – asset sales in suburban markets that have massive amounts of excess space to absorb are still the domain primarily of domestic private firms and private equity.

Joining forces with a local investor or developer is often the shortest route to gaining the precise insight that a more granular strategy requires. Local investors are accounting for many of the adaptive re-use projects within urban cores that are bringing creative office space to emerging neighborhoods such as River North. These are generally smaller-scale projects, national developers are also frequently turning to foreign capital for backing on major mixed-use developments that will take multiple cycles to build out.

It remains to be seen if investors will maintain this willingness to branch out in light of turbulence in global markets. Suburban office sales volume dropped off slightly in May and CBD activity rose. Even before the equity sell-off of late June investors and lenders were being more cautious. A combination of tougher regulations, nervousness about the global economy and heightened fear regarding the potential asset bubbles prompted more careful underwriting practices. At the end of the day, secure investments will hold their value. According to RCA, nearly 30 percent of all cross-border commercial real estate investments during 2016 have targeted the US – this would eclipse the prior record capture rate of 19 percent in 2006.

United States Office Property Sales (US\$ million)

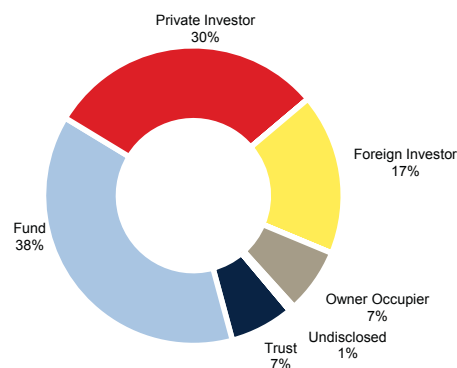
June 2006 – May 2016



Source: RCA/Savills Research

United States Office Property Buyer Profile

Financial year to April 2016



Source: RCA/Savills Research



Keith DeCoster

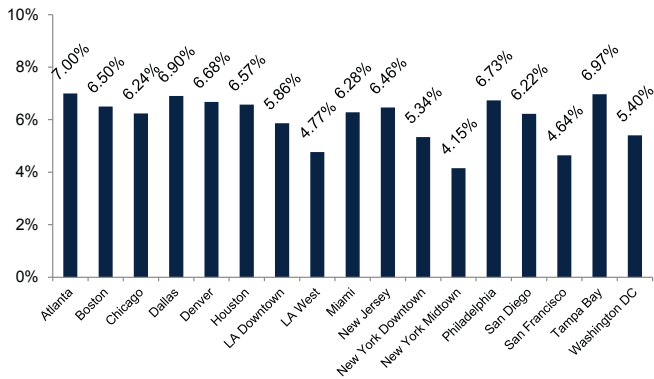
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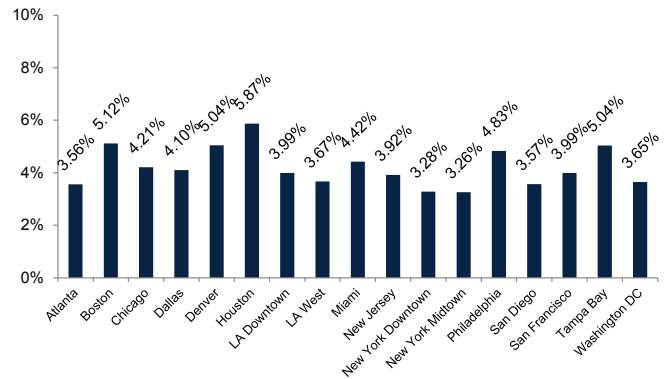
United States/CBD/Grade A Office

Market Yields June 2016



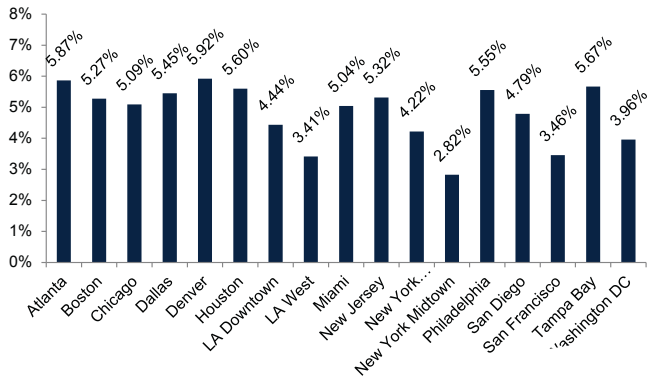
Source: Savills Research

Effective Yields June 2016



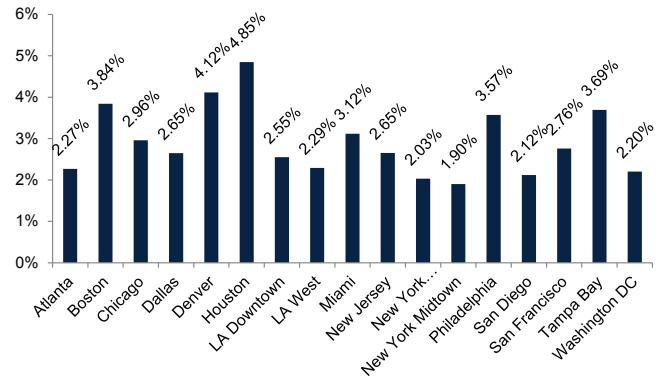
Source: Savills Research

Market Risk Premium June 2016



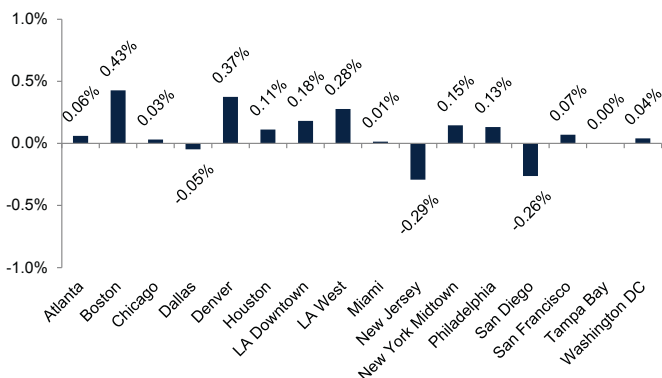
Source: Savills Research

Effective Risk Premium June 2016



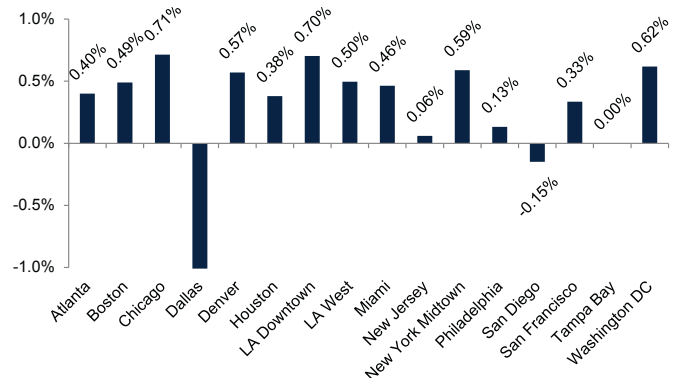
Source: Savills Research

Market Yield Change December 2015 – June 2016



Source: Savills Research

Effective Yield Change December 2015 – June 2016



Source: Savills Research

Australia



The financial year 2015/16 marked another year of strong performance in property investment markets.

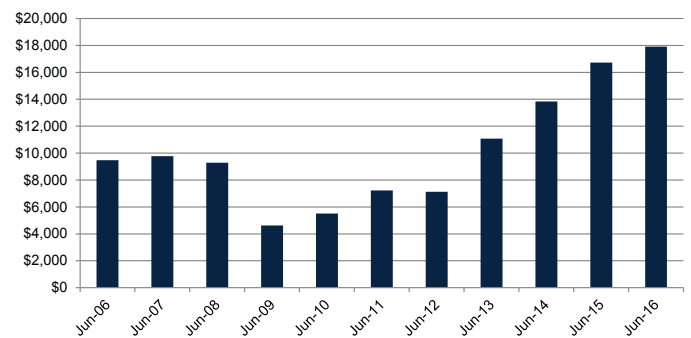
Australian property markets have attracted record amounts of foreign capital entertained by attractive yields, a stable currency and compelling economic and political metrics. Domestic institutions, recovering from the GFC and replacing private investors as competitive buyers once again, suddenly found themselves outbid. The large amount of capital from overseas has encouraged many investors to dispose of property, reweight portfolios and change exposures. This led to a record 12 months of approximately AU\$33.4 billion of turnover in commercial property. Conversely, many market fundamentals demonstrated the two-tone nature of the Australian economy – some indicators deteriorated in Perth and Brisbane, many showed substantial improvement in Melbourne and Sydney. Brisbane appears to have reached a base whilst Melbourne and Sydney continue to improve.

Capital markets exhibited greater degrees of volatility throughout the year and have finished the year weaker with the ASX200 falling 7 percent, however the Australian dollar rose 2 percent against the US dollar and 10 year bonds yields fell by 100 basis points to approximately 2%.

Commercial property investment yields firmed across the board – a theme we have been writing about for several years now. We still do not believe it has fully run its course. In some markets, fundamentals are improving rapidly. We believe this improvement will lead to further tightening in yields as investment capital starts to price in expectations of future NOI growth. This part of the yield cycle is just beginning..

Office Property Sales (AU\$ million)

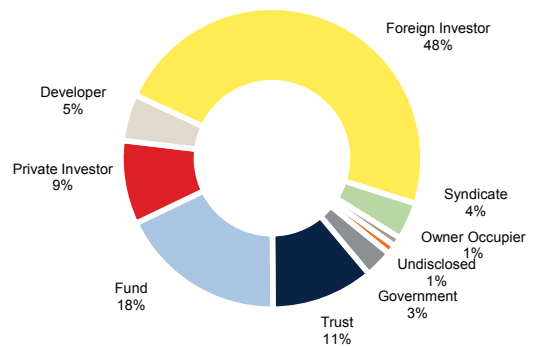
June 2006 – June 2016



Source: Savills Research

Office Property Buyer Profile

12 months to June 2016



Source: Savills Research



Tony Crabb

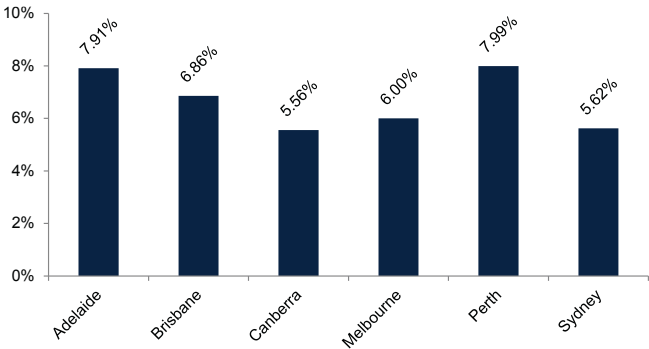
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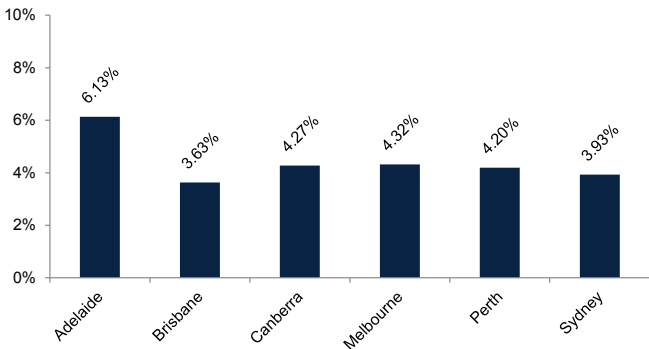
Australia/CBD/Grade A Office

Market Yields June 2016



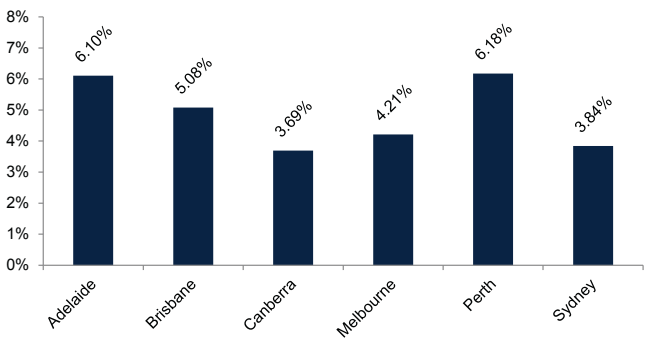
Source: Savills Research

Effective Yields June 2016



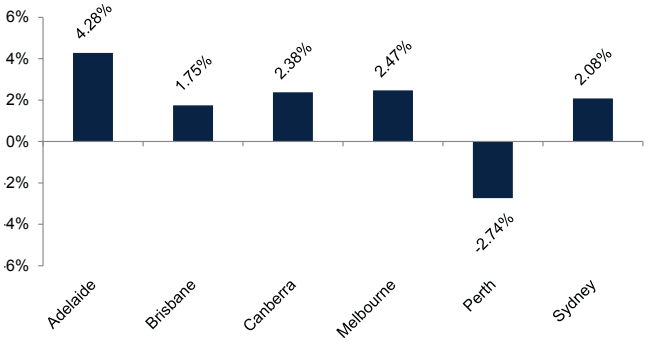
Source: Savills Research

Market Risk Premium June 2016



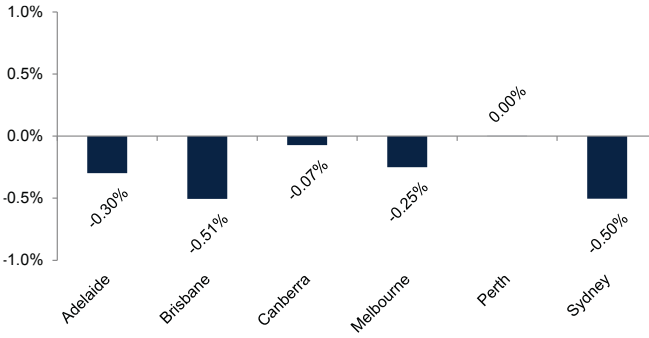
Source: Savills Research

Effective Risk Premium June 2016



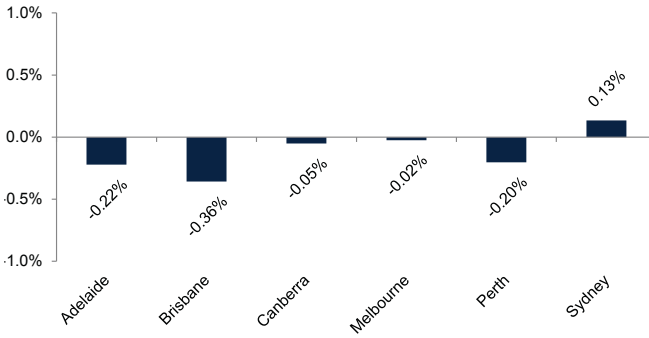
Source: Savills Research

Market Yield Change December 2015 – June 2016



Source: Savills Research

Effective Yield Change December 2015 – June 2016



Source: Savills Research



About



Savills

With a rich heritage and a reputation for excellence that dates back to 1855, Savills is a leading global real estate provider listed on the London Stock Exchange.

Savills advises corporate, institutional and private clients, seeking to acquire, lease, develop or realise the value of prime residential and commercial property across the world's key markets.

Savills is a company that leads rather than follows with more than 700 owned and associate offices throughout the UK, Europe, Americas, Asia Pacific, Africa and the Middle East. With more than 30,000 staff, we seek out people who possess that rare mix of entrepreneurial flair and rock solid integrity, and are focused on delivering clients with advice and expertise of the highest calibre.

A powerful combination of global connections and deep local knowledge provides Savills with an almost unparalleled ability to connect people and property.

Savills extensive Asia Pacific network spans 50 offices throughout Australia, New Zealand, China, Hong Kong, India, Indonesia, Japan, Korea, Macao, Malaysia, Myanmar, Philippines, Singapore, Taiwan, Thailand and Vietnam.

Savills offers the full spectrum of services from providing strategic advice to managing assets and projects and transacting deals. With a firmly embedded corporate culture that values initiative, innovation and integrity, clients receive outstanding service and can be assured of the utmost professionalism.

For advice that gives advantage, contact Savills.

Deakin University

Through its agenda LIVE the future, Deakin aims to build the jobs of the future, using the opportunities of the digital age to widen access to education and make a difference to the communities it serves.

Deakin enjoys a reputation for being accessible, helpful and friendly. It has a longstanding record for its use of cutting-edge information technology while providing highly personalised experiences, whether in the cloud on Deakin's media-rich campuses or through a combination of cloud and campus learning. Deakin has over 50,000 students, with a third choosing to study wholly in the cloud (online).

Deakin was awarded a 5-star rating by the prestigious university ranking organisation Quacquarelli Symonds (QS); the rating indicates Deakin is world-class in a broad range of areas, has cutting-edge facilities and is internationally renowned for its research and teaching. Deakin is in the top 50 of the QS ranking of the world's universities under 50 years.

Deakin is now in the top 3 percent of the world's universities in each of the three major international rankings including the prestigious Shanghai Jiao Tong Academic Ranking of World Universities (ARWU), Times Higher Education and QS World University Rankings. Established in 1974, Deakin was Victoria's fourth university and the first in regional Victoria. In 2014 Deakin celebrated its 40th anniversary.

Deakin has been strengthened by a series of successful mergers with strong partners, each of whom has contributed significantly to our character and approach. Today, Deakin operates in a global, connected world with the digital economy influencing every aspect of our activities.



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