How will interest rate movements affect prime office yields in Asia Pacific?
Executive Summary

JLL expects office yields in most Asia Pacific cities to stay stable over the next three years so long as financing costs increase by 50-150bps from here, in line with current expectations.

Prime office yields in most global cities in Asia Pacific have compressed over the last ten years, due both to an abundance of capital chasing assets as well as lower financing costs.

Yet, we find that the yield compression in Asia Pacific has not fully reflected the decline in financing costs and yield spreads have widened across the region since 2013. Investors are likely to have been sceptical of the sustainability of low interest rates and already accounted for a 50-150bps increase in interest rates in their asset pricing. Lending margins have also narrowed by 50-100bps over the last five years due to new sources of funding and competition.
Over the last six months, expectations of growth over the next three years have improved significantly. The IMF now expects 2018 global economic growth to hit 3.9%. As economic growth improves globally, interest rates are likely to rise. The U.S. Federal Reserve is expected to raise interest rates three or four times in 2018. South Korea raised their benchmarking rate for the first time in six years. The European Central Bank cut bond-buying from January 2018 and agreed to revisit monetary policy in early 2018 as the bloc’s economy continues to grow.

Interest rate is one of the components that makes up total cost of capital, hence is a major consideration for property investors. Most investors use leverage by taking loans or issuing bonds as part of financing requirements when purchasing a real asset, be it for owner occupation or investment. Even if investors were to use only their own capital, the required return would still be influenced by interest rate benchmark movements, thus potentially moving real estate market yields.

This paper aims to answer the following questions:
1. How far have prime yields compressed in major AP office markets in the last decade and did they fully reflect the decline in financing costs?
2. How have property investors’ financing costs changed in the last decade amid quantitative easing and low bond yields?
3. Based on economists’ consensus estimates of government interest rates over the next three years, how will financing costs and prime office yields react?
Has yield compression fully reflected the decline in financing costs?

Since 2010, total Asia Pacific real estate transaction volumes almost doubled to USD150bn in 2017 due to increasing allocation of capital to real estate and the decline in financing costs globally. With the weight of capital chasing assets, real estate yields have fallen over the last decade.

In key office markets across Asia Pacific, prime office yields compressed significantly over the last decade, with the steepest compression of over 200bps in Sydney, Shanghai and Hong Kong, and the smallest decrease of up to 100bps in Singapore and Tokyo.

Source: JLL estimates

Fig 1: Asia Pacific transaction volumes

Fig 2: Prime office yields in Asia Pacific cities (%)

Fig 3: Financing cost for landlords/investors in Asia Pacific cities (%)
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One would argue that prime office yields could start to rise should interest rates increase. We believe this broad-brush assumption may not fully hold for all markets and the outcome could be more nuanced. While financing costs fell significantly from 2013, prime office yields did not fall by as much.

Across Asia Pacific, when cost of financing decreased sharply from 2013, yield spreads over the cost of debt took a step up. Yield spreads in 2013-2017 range from 30-240bps, which are 50-140bps higher than the period in 2009-2012. This could potentially be due to investors’ scepticism about the sustainability of low interest rates. Investors may have started to account for higher longer term financing costs in their asset pricing from 2013. As a result, prime office yields did not fully reflect the compression in financing costs. One could argue that this buffer allows some flexibility for cap rates to stay flat even if financing costs were to rise 50-140 bps over the next three years.

The exception is Japan, potentially because investors do not expect interest rates to rise in the foreseeable future. Prime office yields in Japan were at a 217bps spread above financing costs in 2009-2012 and this remained unchanged in 2013-2017.

Fig 4: Office yield spread over financing cost in Asia Pacific cities (%)

Source: JLL estimates. Note: For Shanghai and Hong Kong, cost of debt only fell from 2015 so we use 2008-2014 and 2015-2017 respectively.

Yield spreads widened from 2013 due to investors’ scepticism about sustainability of low interest rates.
How about financing spreads?

Furthermore, while base interest rates or government bond yields may rise over the next few years, financing costs may not fully reflect that increase. In 2013-2017, asset owners across the region have been able to secure financing at a lower spread over base bond yields than in 2009-2012, as banks reduced their lending margins amid strong competition. For this paper, we have used the average financing cost secured by large landlords or listed REITs where available.

Listed REITs in the region were also able to diversify their sources of funding to include multi-term notes, retail bonds in addition to traditional bank loans. On average, financing spreads are now 20-200bps above bond yields, which is about 40-90bps lower than the 60-300bps spread in 2009-2012. The only exception is Japan, where financing spreads have stayed relatively unchanged. While bond yields may rise over the next few years as central banks raise policy rates, we think it is unlikely for lending margins in these developed markets to widen too far out again. Margins are only expected to increase if the risks associated with real estate, corporate defaults or bond market dislocations increase.

Source: JLL estimates. Note: For Shanghai, cost of debt only fell from 2015 so we use 2008-2014 and 2015-2017 respectively.

Asset owners have secured financing at a lower spread over bond yields in the last 5 years.
What could happen to prime office yields as interest rates start to rise in the next three years?

Based on economists’ views on government interest rates across Asia Pacific in the next three years, we expect financing cost to rise by 30-130bps, potentially reverting to 2012-2014 levels. The exception is Japan, where economists continue to expect the current low interest rate regime to persist for the next three years.

We have assumed the highest increase in financing cost for Australian landlords of about 130bps to 5.5% in 2020, close to 2014-levels, based on the 10-year Commonwealth Government bond rate rising to 3.5% by 2020 and the spread between financing cost and bond yields staying at 200bps.

In Shanghai and Hong Kong, we assume financing cost could rise about 100bps to 2013 levels. For Singapore, we expect financing cost for landlords to rise to 2.95%, close to 2011-levels but just 40bps higher than 2017 levels. While economists expect US Treasury bond yields to rise to c.3.5% by 2020, the Singapore 10Y government bond yield is not expected to exceed 3.0% by 2020 after accounting for historical spreads and some appreciation of the Singapore dollar.

Fig 6: Financing cost in Asia Pacific cities (%)

Source: JLL estimates
Office yields in 2018-2020

In our view, investors may have fully accounted for this magnitude of increase in financing costs. As a result, in Singapore, Seoul and Tokyo, we forecast prime office yields to stay flat or rise only mildly in 2018-2020, after accounting for financing costs increasing in line with these expectations (see Fig 7-12).

For Sydney, we expect prime office yields to increase by c. 50-100bps over 2018-2020 in tandem with rising financing costs. For Hong Kong and Shanghai, our analysts expect strong liquidity to result in mild compression of office cap rates in the next few years.
How will interest rate movements affect prime office yields in Asia Pacific?

Fig 8: Forecast prime office yield in Singapore (%)

Fig 9: Forecast prime office yield in Seoul (%)

Fig 10: Forecast prime office yield in Sydney (%)

Fig 11: Forecast prime office yield in Tokyo (%)

Fig 12: Forecast prime office yield in Hong Kong (%)

Fig 13: Forecast prime office yield in Shanghai (%)

Source: JLL estimates
The Singapore economy expanded by 3.6% in 2017, the highest growth since 2013. Unemployment eased in 4Q2017 and median gross monthly income rose 3% in 2017. Consensus Economics forecasts 2018-2019 GDP growth of 2.7-3.0% as momentum in both manufacturing and exportable services continue.

With the Singapore economy and inflation picking up in 2018-2020, we expect the Central Bank to revert to a policy of slight appreciation for the Singapore dollar. This is likely to cushion Singapore bond yields from rising US Treasury bond yields. Consensus amongst economists indicate approximately 8-10% appreciation of the Singapore dollar over the next four years and the SGD 10Y bond yield to rise less than US treasury bond yields over the next three years.

Singapore government bonds had traded at a tighter yields than US Treasury bond yields prior to 2012 due to expectations of appreciation of the Singapore dollar. After 2012, the weaker Singapore economy and moderation of the SGD by Singapore’s Central Bank have caused the gap to close.

Source: Monetary Authority of Singapore, Thomson Reuters

Source: Monetary Authority of Singapore, Thomson Reuters
How will interest rate movements affect prime office yields in Asia Pacific?

Financing costs for investors
In 2008-2012, 3-4 year financing costs for Singapore office REITs (i.e. CapitaLand Commercial Trust, Keppel REIT and Suntec REIT) were 100bps above the 10Y SGD government bond yield. But this narrowed to 30bps in 2013-2017, and 40bps currently, as they diversified their sources of funding to include multi-term notes and retail bonds in addition to traditional bank loans. We do not expect financing margins to expand dramatically over the next few years. We think office REITs’ financing costs could rise 30-50bps over the next three years.

What could happen to prime office yields?
As interest rates fell significantly from 2013, Singapore prime office yields did not fully reflect the compression. Prime office yields traded on average 80bps above financing costs in 2009-2012, but this widened to 120bps in 2013-2017. Potentially, investors were sceptical about the sustainability of low interest rates and accounted for slightly higher longer term financing costs in their acquisitions. As financing costs rise over the next three years, potentially, the yield spread could normalise to 80-90bps, moderating the rise in prime office yields.

Fig 16: Singapore prime office yields vs investors’ financing cost (%)

Source: Singapore office REITs, Monetary Authority of Singapore
Korea’s GDP grew 3.1% in 2017, the largest gain since 2014. Solid export growth and facility investment led to the firm growth. The Bank of Korea (BOK) economic outlook indicated the country’s economy would continue to expand at a decent pace in upcoming years – growing 3% and 2.9% for 2018 and 2019, respectively, as robust export growth continues and consumer spending improves.

The BOK raised its benchmark rate by 25 bps to 1.5% in November 2017, a sudden move that signalled an official end of the dovish monetary policy era. Since the increase, the interest rates of government bonds across maturities continue to ascend, already pricing in an additional one or two interest hikes. However, many economists forecast only three hikes ahead, unlike the Federal Reserve – this denotes the bank will end its tightening at a benchmark rate of 2.25%. Massive household debt, weak inflationary pressure, the appreciating Korean won and the accommodative fiscal policy will play a role in forcing the bank to limit its monetary tightening.

Given the more aggressive interest rate hikes scheduled in the US – the Federal Reserve aims to end its tightening cycle at 2.75% of the Federal Fund Rate – overall Korea yields are predicted to trade lower than the US yields over the next few years. By adding 2.25%, the maximum benchmark rate at the end of the current interest hike cycle to 40 bps, a historical spread between the BOK benchmark rate and five-year government bond yield in the previous interest rate hike cycle, we think that, at the end of the current cycle, the Korea five-year government bond yield could increase to the 2.65% mark, 65 bps up from the average 2017 yield.
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**Financing costs for investors**

Since the cost of debt is not publicly available in Korea due to its relatively small REIT market, we have chosen the five-year AAA bank bond rate as a proxy for the cost of debt. Financial institutions refer to the bank bond rate as their cost of funding and employ the bond rate as a benchmark in setting their lending rate. Since 2010, the spread of the bank bond yields over government bond yields has narrowed and stabilised at around 20 bps. We believe the low interest rate environment coupled with the sanguine economic outlook ahead would encourage yield-hungry bond investors to continue to purchase bonds, preventing the spread from widening. Thus, we expect bank bond yields to increase in tandem with government bond yields in 2018-2020, i.e. by around 65bps.

**What could happen to prime office yields?**

The Korea prime office yield hovered on average 170 bps above the bank bond in 2009-2012. Over the subsequent five years, the spread extended to 237 bps on average. Looking closely at the historical spreads, they are well tied with two dominating forces: overall economic conditions and liquidity. Excluding the period between 2007 and 2009 when spreads became abnormal due to a sudden spike in bond yield caused by the financial crisis, 2011, 2014 and 2017 stand out as years with low spread – they all feature resilient economic growth and ample investment volumes.

We expect spread of office yields over financing cost to narrow in 2018-2020, due to the solid economic outlook, strong liquidity and the heightened interest from international and domestic investors. We think the market is poised to test the previous historical lows in the post-crisis period going forward – this indicates the yield spread would shrink to around 180-200 bps. Therefore, prime office yields are expected to increase marginally by around 5-10 bps per annum.

**Fig 19: Korea prime office yields vs. AAA bank bond yield (%)**

Source: Korea Financial Investment Association, JLL Korea
The Japan economy is expected to have expanded by 1.6% in 2017, marking the sixth year of positive growth after the Great East Japan Earthquake. While growth was moderate, the trend of increased corporate investment continued, and private consumption also picked up. The Tankan Diffusion Index which measures companies' sentiment and confidence in the economy rose to 25 point in 4Q17. This marks the fifth consecutive quarter of improvement, and shows market confidence has recovered to a level similar to 11 years ago. The strong performance of corporate performance against the backdrop of a solid global economy boosted the business climate.

The unemployment rate for December 2017 was 2.8%. While it crept up for the first time in seven months, the job offer ratio has increased for the third consecutive months by 0.03 to 1.59. This reflects a serious labour shortage, amid a gap between the personnel required by corporates and job seekers' abilities. The Japanese government bond yield has stayed at zero for a year, due to monetary easing by the government.
## Financing costs for investors

In 2009-2012, the average cost of debt for Japan office REITs (i.e. Nippon Building Fund, Japan Real Estate Investment, and Mori Hills) was 57bps above the 10Y Japan government bond yield. But this widen to 70bps in 2013-2017. We do not expect financing margins to expand dramatically over the next few years, unless there are changes in the current monetary policy.

## What could happen to prime office yields?

As interest rates fell significantly from 2013, Japan prime office yields mirrored the compression. Prime office yields traded on average 220bps above financing costs in 2009-2012 and this stayed at 219bps in 2013-2017. Unlike other Asia Pacific office markets, office yield spreads over financing costs did not widen, potentially because investors did not expect interest rates to increase in the foreseeable future.

Based on forecasts by Oxford Economics, the 10Y JGB yield is expected to stay close to zero, keeping financing costs relatively stable over the next three years. We expect prime office yields in Japan to stay at around 2.9% over the next three years amid flattish financing costs. Amongst Asia Pacific cities, Tokyo office yields’ spread over financing cost is the widest, potentially due to low expectations for growth. If these expectations change, there is some potential for a structural change in office yield spreads in Japan.

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**Fig 22: Japan prime office yields vs investors’ financing cost (%)**

![Graph showing Japan prime office yields vs investors’ financing cost from 2007 to 2020](image-url)

- **Office REITs cost of debt**
- **Spread**
- **JLL Market Yield**

Source: JLL, Each J-REIT’s Public Information
The Australian economy expanded by 0.6% in 3Q17, following an upwardly revised 0.9% in 2Q17. While growth was marginally below market expectations (0.7%), y-y growth rebounded to 2.8% and continues Australia’s 26-year run of uninterrupted economic expansion.

The national jobs boom has maintained momentum through 2017. Total employment increased by 3.3% in 2017 and full-time employment growth accounted for 75% of total job creation in 2017. The labour force participation rate pushed to a seven year high of 65.7%, as better employment prospects encouraged more people to try to enter the workforce. Nevertheless, wage growth remains subdued, suggesting there is still excess capacity in labour market.

The RBA has suggested full employment is consistent with an unemployment rate of around 5% and that a further decline of 0.5% from the current 5.5% should see wages grow more substantially.

With the headline inflation rate persistently below the Reserve Bank’s target band of 2% to 3%, the monetary authorities left the overnight cash rate at 1.5% at their February 2018 meeting, unchanged since August 2016.

The RBA is acutely aware of the economy’s transition after the mining boom to more broad based drivers, and has maintained a stimulatory monetary policy stance so as to support this transition. Low wage growth and benign inflationary pressures have also supported this policy. However, with the transition almost complete, and with economic growth, most economists expect that the cash rate will be lifted during 2018.

The futures market expects a 25 bps rise in late 2018 and a further 25 bps by June 2019. If this eventuates, this will move the cash rate to 2.0%, which will be the highest rate in more than three years. Bonds yields trended down in the December quarter. The 10-year inflation-indexed Commonwealth Government bond rate fell to 0.93% in December (from 1.15% in September), but has moved back up to around 1% in January 2018. This highlights the pressure on bond yields as some central bank, particularly the US Fed, start to unwind their very large balance sheet expansion since the GFC. However, to date, the process has been very gradual and orderly.
How will interest rate movements affect prime office yields in Asia Pacific?

**Financing costs for investors**

Given that a number of Australian REITs (A-REITS) have S&P credit ratings ranging from BBB+ to A-, we have adopted a midpoint between A-rated and BBB-rated 10-year Australian corporate bond yields as a proxy for the cost of debt. The average spread between the estimated cost of debt for AREITS and the 10-year Australian Commonwealth Treasury bond yield has been 258 bps over the last 10-years which of course includes the volatile 2008-2010 period. This spread has however reduced to 204bps bps over the last 5-years. The decline in the spread is largely due to increased demand for higher yielding corporate debt issuances, and the current lower-for-longer global financial returns environment.

The recent reduced spread is expected to remain in the near term as regulatory bodies slowly unwind fiscal stimulus policy as the domestic and global economy improves. As domestic interest rates move out, the estimated AREIT cost of debt is expected to move out accordingly. Many rated A-REITs have accessed debt funding from the liquid US markets. Hence, investment hurdle rates in the local market are not determined entirely by domestic factors. These lower US rates and hedging costs are not taken into account in the above AREIT cost of debt estimation.

**What could happen to office yields?**

Sydney CBD prime office yields are currently in uncharted territory with the prime yield high-low range compressed to just 37bps, at 4.63% - 5.00%. The strong rental growth assumptions being priced in by investors coupled with record low Commonwealth Treasury bond yields have resulted in compression of both the upper and lower bound of the prime CBD office yield.

Although yields are at unprecedented levels, the spread between Sydney CBD office yields and the real risk-free Government 10-year bond rate remains wider than historical benchmarks. The spread between Sydney CBD prime yields and the real risk-free rate is currently 398bps, or 33bps wider than the historical average benchmark of 365 bps. JLL believes that the Sydney CBD yield compression cycle is approaching its end. However, current momentum from global capital markets and strong local market fundamentals are expected to persist in the near term, creating modest scope for further prime yield compression. The tighter end of the prime yield range is expected to reach 4.50% by the end of 2018, with a gradual decompression cycle to commence in 2019.

**Fig 25: Sydney CBD prime office yields and 10-year Australian corporate bond yield (%)**

Source: JLL Research, RBA
Supported by strong global trade and higher-than-expected economic output from mainland China, Hong Kong’s economy grew by 3.8% in 2017, a significant improvement on the 2.0% recorded in 2016 and the strongest year of expansion since 2011. Yet growth is likely to ease as we head into 2018. With domestic demand forecasted to weaken against moderating growth on the mainland, rising interest rates and an elevated property market, the consensus view is for economic output to slow to 2.8% in 2018 and 2.6% in 2019.

The labor market continues to be near a state of full employment with the seasonally adjusted unemployment rate tightening to 2.9% between October and December, a 20-year low. Despite the expectations of slower growth ahead, results from an array of business sentiment surveys suggests that the private sector remains upbeat about the city’s business prospects in 2018. Coupled with a strengthening Renminbi, inflation is set to quicken from 1.5% in 2017 to return above 2.0%, albeit still well below the annual average of 3.3% recorded over the previous 10 years.

Ample liquidity in the local money market and strong demand for fixed-income securities has contributed to 10-Year Exchange Fund Notes issued by the HKMA trading at yields below US 10-Year Treasuries since 2004. More recently, the tighter yields also reflect the lower default risk perceived by investors. US government debt to GDP has ballooned by more than 55% over the last 10 years and stood at about 105% in 2017. In contrast, JLL estimates that Hong Kong government debt (including HKMA’s Exchange Fund Notes) amounted to only 40% of GDP in 2017. Bond yields have been steadily rising in tandem with the tightening in US monetary policy since 2016.

Source: Oxford Economics, JLL estimates
**Financing costs for investors**

Owing to Hong Kong’s relatively small market for government bonds and the currency peg between the Hong Kong dollar and US Greenback, corporate bond yields generally benchmark against a spread over HIBOR. However, there is no complete historic data on spreads and anecdotal evidence has shown that it is not stable. As such, JLL has taken the average corporate bond yield of Hong Kong’s major REITs and landlords to estimate the cost of debt.

Strong capital inflows, along with the commencement of the Mainland-Hong Kong Bond Market Connect, which allows for cross-border bond trading between the markets, has kept the local money market awash with liquidity. Consequently, the cost of debt has plummeted to below 2.0%. Notwithstanding, JLL expects financing costs to steadily rise in line with US interest rates. However, owing to strong capital inflows any increase in financing costs will likely be moderate; up by about 80bps over the next three years.

**What could happen to office yields?**

Despite reaching unprecedented lows, JLL believes that Grade A office yields still have room to compress further even as interest rates start to rise. Investment into the Grade A office market reached a record USD 16.5 billion in 2017, up about 50% from a year earlier. Mainland Chinese buyers returned to the market in the second half of 2017 and were again prominent in the city’s biggest transactions. The uptick in activity is a reversal of the drop we observed following China’s implementation of capital controls on outbound real estate investments in late 2016. Investor expectations for further rental growth—the vacancy rate in the Central Grade A office market stood at just 1.7%—and still low borrowing costs should also continue to weigh on yields.

Still, JLL believes that the current yield compression cycle is nearing its end. After reaching a low in 2018, Grade A office yields expected to flatten out before steadily rising from 2020 onwards. In Central, yields are likely to remain at a lower level for a slightly longer period owing to strong demand from mainland Chinese investors targeting trophy assets in the city’s CBD.

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**Fig 28: Hong Kong Grade A Office Yields vs Financing Costs (%)**

Source: Bloomberg, JLL estimates
China economy and bond yields

China’s GDP rose to RMB82.7 trillion in 2017 as growth accelerated to 6.9% y-o-y compared to 6.7% in 2016, beating expectations. Most of the economy’s resilience can be attributed to the services sector, whose growth accelerated to 8.0% y-o-y, up from 7.7% in 2016.

The People’s Bank of China (PBoC) made no changes to benchmark interest rates in 2017, leaving the one-year benchmark lending rate flat at 4.35% since Nov. 2015. Most economists agree that China’s government will eventually need to raise rates to deal with risks that rising leverage may pose to the country’s banking system.

However, there remains a possibility that the timing for rate increases could be delayed, as the leadership recently showed signs of wariness that applying tightening measures too rapidly could produce a sharper economic slowdown than the government is willing to tolerate.

Financing costs for investors

Since the cost of debt is not publicly available in China, we have chosen the weighted average of interest rates of bank loans to non-financial institutions and other sectors as a proxy for the cost of debt. The rates decreased significantly by 190 bps between 2014 and 2016 and picked up in 2017 by 49 bps to 5.76%.

It is worth mentioning that real estate financing in China currently stands at a crossroads, especially for Chinese domestic investors, who are playing an increasingly important role in the investment market. They have started to combine traditional approaches of securing financing (such as bank loans) with newer methods. For instance, as China relaxed rules for the sale of mortgage and asset-backed securities, securitization, which is still in its nascent stage in China, hold considerable potential for developers and investors. Such new methods will help investors to diversify their sources of funding.
What could happen to prime office yields?

Due to the robust net take-up in the office leasing market and strong investment interests from a wide range of investors, gross market yield compressed 31 bps over the past three years in Shanghai. Going forward, we expect prime office yield to compress mildly by 8 basis points in 2018-2020. This is based on the following factors: 1) leasing demand will remain strong as the city is in the process of building into a global city; 2) rental outlook for the mid- to long-term is very positive; and 3) investors will become more diverse including Chinese insurance companies, the rapidly growing ABS/CMBS market and foreign core investors.
How will interest rate movements affect prime office yields in Asia Pacific?

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