**Investment Highlights**

Across the CBDs of Tokyo, Hong Kong, Sydney and Singapore, we compared the prospective purchase price of an average Grade A office building to what it would cost to re-develop a Grade B commercial building in the same area.

- We estimate that average Grade A office Capital Values (CV) in Tokyo and Hong Kong are more expensive than average Grade B CV plus replacement cost.
- Investors looking to buy an asset will find increased value by acquiring a medium Grade A building in the CBDs of Sydney or Singapore at a discount to a Grade B commercial building plus replacement cost.

With the near record levels of capital targeting Asia Pacific, the pricing of core real estate in the region has increased substantially over the last few years. The scarcity of stock in gateway markets, means the main challenge for investors is to deploy capital without driving prices to unsustainable levels.

Given current market conditions, it is useful for investors to compare the prospective purchase price of a commercial building to what it would cost to replace/redevelop a similar structure in the same area, even if just as a hypothetical exercise. Acquiring an asset at a price that is a sizable discount to its replacement cost means lower risk for the buyer, and allows higher returns than would be achieved with redevelopment.

*Source: JLL*
Across the CBDs of Tokyo, Hong Kong, Sydney and Singapore, we compared the prospective purchase price of an average Grade A office building to what it would cost to re-develop a Grade B commercial building in the same area.

**Sales price below replacement cost indicates attractive pricing for the buyer**

Replacement cost is defined as the cost to demolish the existing structure, construct a new medium Grade A office building, finance the project and include a reasonable return to compensate for development risks. For this exercise, land costs have been included in the CV of the Grade B building.

The costs of demolishing a grade B commercial building and constructing a new Medium Grade A office building (up to 20 floors) are estimated to range between USD3,000 and USD5,000 per sqm in the four cities (Table 1). Other costs including contingency, architectural, planning & engineering, as well as development & project management together are estimated at 15-20% of construction costs. On top of this is added developers' margin, assumed to be 15% of construction costs.

**Table 1: Estimated total replacement costs**

<table>
<thead>
<tr>
<th>(USD per sqm, NLA basis)</th>
<th>Tokyo CBD</th>
<th>Hong Kong Central</th>
<th>Singapore</th>
<th>Sydney CBD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average age of buildings (years)</td>
<td>8</td>
<td>22</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>Construction cost (include demolition)</td>
<td>5,300</td>
<td>5,000</td>
<td>3,100</td>
<td>3,000</td>
</tr>
<tr>
<td>Developers' margin</td>
<td>800</td>
<td>800</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Other margin</td>
<td>900</td>
<td>900</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Financing costs</td>
<td>400</td>
<td>300</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Additional project costs</td>
<td>400</td>
<td>400</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Forgone rent income for 3 years</td>
<td>1,500</td>
<td>3,500</td>
<td>1,800</td>
<td>900</td>
</tr>
<tr>
<td>Total replacement cost</td>
<td>9,300</td>
<td>10,900</td>
<td>6,400</td>
<td>5,400</td>
</tr>
</tbody>
</table>

Sources:
- a) Construction costs are estimates by JLL Project Development Services.
- b) Other items are estimates by JLL Research and Capital Markets.

Financing is usually drawn down over the life-time of the project. The typical cost of debt in the four monitored markets currently ranges from 2.75% to 5% p.a. We assumed that the cost of debt to finance a commercial project with a 3-year development period to be 300 bps above typical cost of debt.

We also allow for other factors at 10% of total project costs, which include acquisition costs, legal costs, marketing fees, etc. Lastly, we need to allow for the forgone rent income from the existing Grade B building over the 3-year development period, using the current annual average rent for Asia, and including the escalation factor built into Australian leases for Sydney.

Across the four CBDs, estimated replacement costs range between USD5,400 per sqm in Sydney to USD11,000 per sqm in Hong Kong. These costs are added to the average Grade B CV (CV) per sqm to arrive at the total costs to replace an average Grade A office building with a Grade B commercial building in the same area. The lowest and highest replacement costs can be found in Sydney and Hong Kong at USD9,400 and USD50,000 respectively (Table 2).

**Table 2: Average Grade A CVs versus Average Grade B CVs + Replacement Costs**

<table>
<thead>
<tr>
<th>(USD per sqm, NLA basis)</th>
<th>Tokyo CBD</th>
<th>Hong Kong Central</th>
<th>Singapore CBD</th>
<th>Sydney CBD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Replacement cost</td>
<td>9,300</td>
<td>10,900</td>
<td>6,400</td>
<td>5,400</td>
</tr>
<tr>
<td>Average Grade B building CV</td>
<td>13,200</td>
<td>38,900</td>
<td>14,500</td>
<td>4,000</td>
</tr>
<tr>
<td>Total Replacement costs + Average Grade B CVs</td>
<td>22,500</td>
<td>49,800</td>
<td>20,900</td>
<td>9,400</td>
</tr>
<tr>
<td>Average Grade A building CV</td>
<td>27,300</td>
<td>54,700</td>
<td>17,800</td>
<td>7,300</td>
</tr>
<tr>
<td>Premium (discount) of average grade A to grade B + replacement costs</td>
<td>4,800</td>
<td>4,900</td>
<td>-3,100</td>
<td>-2,100</td>
</tr>
<tr>
<td>Premium (discount) as % of grade B + replacement costs</td>
<td>21%</td>
<td>10%</td>
<td>-15%</td>
<td>-22%</td>
</tr>
</tbody>
</table>

Sources:
- a) Average Grade A & Grade B CVs are estimates by JLL Research.
- b) Replacement costs are estimates by JLL Project Development Services and Capital Markets.

It is worth noting that we are assuming development costs of a single-owner building in our examples. Re-developing a multi-owner building involve additional risks and margins that can be prohibitive in some parts of Asia (particularly in Hong Kong).
Valuations push beyond replacement cost in Tokyo and Hong Kong

Prime CBD office assets are keenly priced in Tokyo and Hong Kong, as foreign capital has driven valuations steeply upwards in the current market upswing. Our estimates show that average Grade A office CV of USD27,300 per sqm in Tokyo is 20% more expensive than average Grade B CV plus replacement cost. Average Grade A office CV of USD54,700 per sqm in Hong Kong can be 10% above average Grade B CV plus replacement cost. Therefore, buyers in both cities may find less value in acquiring Grade A building at a discount to replace / redevelop a Grade B commercial building in the same area.

It is good news to an owner of a property in Tokyo as re-developing a Grade B commercial building will be attractive. The higher rents and CV should comfortably cover replacement costs and incentivise development. Recently, mid-sized developers that plan to redevelop/refurbish older buildings are the main buyers in Tokyo.

Whilst the dollar value associated with re-developing a Grade B commercial building will also be attractive in Hong Kong, pursuing the re-development route will be challenging. Despite housing one of the oldest office stock in the region (the 30 buildings with the highest rents are 22 years old on average), there are very few assets on market because of limited land supply in the core Central District and most new supply being in periphery CBDs and decentralized areas. In addition, a number of legal and regulatory hurdles for strata-title buildings mean development involves additional risks and a lengthy process.

Greater value can be found acquiring Grade A buildings in Sydney and Singapore

In Singapore, more office stock (both CBD en-bloc offices and some strata-title prime offices) are on the market as occupancy and rents fall. Therefore, prospective buyers will have more options. On the other hand, strong demand for office assets in the CBD of Sydney means that investors may need to look outside prime and into Grade A buildings in secondary markets (for example North Sydney).

Trophy buildings are at a premium to replacement value in all CBD markets

Although our focus is on average Grade A buildings in the CBDs, we have broadened our scope to look at the case of the newest and best quality Grade A office buildings (see Table 3). Unsurprisingly, estimated CV of new Grade A best buildings are at a premium to replacement value in all four CBD markets, most significantly in Hong Kong and Tokyo. This testifies to both the scarcity values of these assets and intense competition for trophy assets in the world’s prestigious commercial office districts.

Table 3: New Grade A CVs versus Average Grade B CVs + Replacement Costs

<table>
<thead>
<tr>
<th>(USD per sqm, NLA basis)</th>
<th>Tokyo CBD</th>
<th>Hong Kong Central</th>
<th>Singapore CBD</th>
<th>Sydney CBD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Replacement cost</td>
<td>9,300</td>
<td>10,900</td>
<td>6,400</td>
<td>5,400</td>
</tr>
<tr>
<td>Average Grade B building CV</td>
<td>13,200</td>
<td>38,900</td>
<td>14,500</td>
<td>4,000</td>
</tr>
<tr>
<td>Total Replacement costs + Avg Grade B CVs</td>
<td>22,500</td>
<td>49,800</td>
<td>20,900</td>
<td>9,400</td>
</tr>
<tr>
<td>New Grade A best building CV</td>
<td>48,000</td>
<td>100,200</td>
<td>27,200</td>
<td>9,900</td>
</tr>
<tr>
<td>Premium (discount) of new grade A to grade B + replacement costs</td>
<td>25,500</td>
<td>50,400</td>
<td>6,300</td>
<td>500</td>
</tr>
<tr>
<td>Premium (discount) as % of grade B + replacement costs</td>
<td>113%</td>
<td>101%</td>
<td>30%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Sources:
a) Average Grade B CVs are estimates by JLL Research.
b) New Grade A CVs are derived from best building rents (The JLL Premium Office Rent Tracker) and transactional yields (JLL Capital Markets’ estimates).
c) Replacement costs are estimates by JLL Project Development Services and Capital Markets.

(Please contact JLL for stats, and Project and Development Services at JLL for further details on building costs.)
Authors

Dr Megan Walters
Head of Research
Asia Pacific
Tel +65 6494 3649
Megan.Walters@ap.jll.com

Myles Huang
Local Director, Research
Asia Pacific Capital Markets
Tel +852 2846 5017
Myles.Huang@ap.jll.com

Nicholas Tan
Senior Research Analyst
Asia Pacific Capital Markets
Tel +65 6494 3540
NicholasZW.Tan@ap.jll.com

JLL offices

Asia Pacific
9 Raffles Place
#39-00 Republic Plaza
Singapore 048619
Tel +65 6220 3888
Fax +65 6438 3361
www.joneslanglasalle.com.sg

Americas
200 East Randolph Drive
Chicago IL 60601
Tel +1 312 782 5800
Fax +1 312 782 4339
www.am.joneslanglasalle.com

EMEA
22 Hanover Square
London W1A 2BN
Tel +44 20 7493 6040
Fax +44 20 7408 0220
www.joneslanglasalle.co.uk

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