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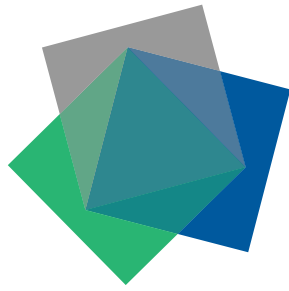
HONG KONG REAL ESTATE

NOV 2010

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Responsible Research is an independent provider of sectoral and thematic Asian environment, social and governance (ESG) research, targeted at global institutional investors. Many of these fund managers and asset owners now find that traditional investment banking reports, financial models and public information sources can no longer be relied on to cover all risks to earnings and deliver superior returns. Companies who do not monitor and report on this 'non-financial' performance not only risk financial penalties for non-compliance with stricter regulatory environments but are also denied access to substantial pools of global capital which are managed according to sustainable principles.

Our approach is based on analysis of material ESG factors, which change according to sector and market. We provide our clients with local market knowledge of important regulatory landscapes in Asia, along with a fresh perspective on local operational and sectoral issues. We offer an annual subscription model for our monthly sectoral or thematic reports and give our clients access to the underlying data. Reports can also be commissioned (by investors or foundations) and kept for internal use or be offered for general distribution, as part of an general effort to promote ESG integration into the Asian investment process. Our analysts conduct seminars and webinars to discuss findings, often with contributions from experts, companies and policy-makers.

Responsible Research was founded in 2008 by our Board who have been instrumental in promoting Corporate Social Responsibility (CSR) and SRI practices in Asia for over 10 years and have significant experience in the regions emerging investment markets. This team of five works in collaboration with our full time Asian-based responsible investment analysts and the Responsible Research Alliance, a group of consultants with subject matter expertise. Together they provide a valuable balance of market and ESG knowledge, academic rigour, process management, data management, customer relationship management and senior level contacts.

Many of our clients are signatories to the UN backed Principles of Responsible Investment (PRI), an investor initiative. As signatories they commit to incorporate ESG issues into their investment analysis and to support the development of ESG tools, metrics and methodologies. As a signatory to the PRI we voluntarily contribute time and resources to the Emerging Markets Disclosure Project and other collaborative initiatives. Responsible Research is also a strong supporter of independence in research, without which conflict and bias can deliver investment risk. The company is one of the founding members of the Asian Association of Independent Research Providers and also of the Asian Water Project.



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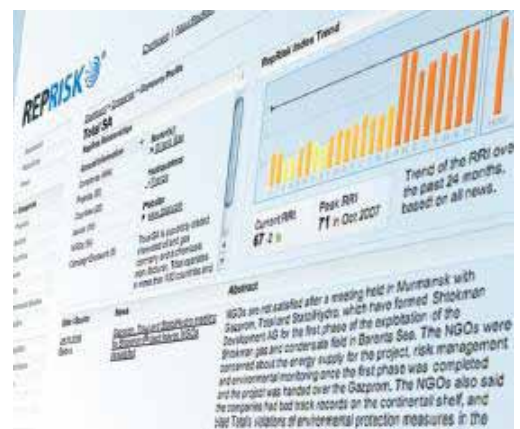


Responsible Research is the exclusive partner in Asia for RepRisk®, a web-based tool which provides insights on environmental and social issues that present financial and reputational risks to companies and investment portfolios. The tool enables commercial and investment bankers, asset managers, and supply chain managers to manage the corresponding risks and to implement effective screening procedures.

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EXECUTIVE SUMMARY

Real estate investors commit capital to acquire land, build and manage property and aim for capital appreciation and income generation through leasing activity. Investments are carried out with varying time horizons; directly through private or listed equity or through participation in investment funds or REITs.

Whilst mindful that other micro and macroeconomic, fiscal and regulatory factors influence returns at listed property companies, this report focuses specifically on the environmental, social and governance (ESG) risks and opportunities for the listed Hong Kong real estate sector. As we shall see in this report, awareness and management of ESG risk is a key business issue, going way beyond the 'softer' focus on corporate social responsibility (CSR) as community investment, which many players already feel comfortable with.

As with all our reports, we use our Asian Sustainability Rating™ tool with additional sector specific criteria to benchmark the sector, identify the ESG leaders and laggards and analyse the practices that place them in these positions. In general scores in our Hong Kong universe were extremely low compared to regional property leaders; the average score of the top five real estate companies in Asia ex Japan is 70 percent whereas the Hong Kong 'leaders' average just 34 percent. The highest scores were seen on governance indicators, as shown by the table below.

Figure 1: Leaders in Hong Kong Real Estate ESG reporting

Company Name	Code	ASR™	Gen.	E	S	G	Sector Specific
Hang Lung	10:HK	39%	31%	20%	19%	84%	60%
Sun Hung Kai	16:HK	32%	85%	15%	3%	56%	20%
Sino Land	83:HK	31%	15%	20%	19%	64%	60%

Source: ASR™

In order to understand risks to sustainability, ESG analysis is particularly relevant in the real estate sector because built property is a long-term fixed asset, irrespective of an investor's time horizon. By analysing property with ESG issues in mind, responsible real estate investors are able to fulfil their fiduciary duty to generate returns while contributing towards a healthy and more sustainable built environment – in Hong Kong's case, a densely populated area of seven million people living in just over 1,100 square kilometres.

Shareholders in Hong Kong, and around the world, are increasingly seeking real estate investments that take ESG issues into account to generate sustainable returns, better buildings and stronger communities. Indeed, from a risk mitigation standpoint, proactive ESG management has enabled Hong Kong's leading property companies to respond more quickly and effectively to a range of new measures introduced by the government during 2010, including the introduction of mandatory building energy codes and legislation on the responsible marketing of properties.

Environment

Buildings have an important role to play in addressing global sustainability challenges. From an environmental perspective, Hong Kong's iconic commercial and residential skyscrapers which use 89 percent of the territory's electricity,¹ are well known for their blaze of neon. Their energy usage is more than double the proportion used by buildings globally. Moreover, buildings in Hong Kong contribute close to 70 percent of the city's greenhouse gas (GHG) emissions.² This is the chief focus of a government policy that will ensure that Hong Kong



meets its public commitment to reduce carbon intensity from 50 to 60 percent by 2020 against a 2005 baseline.³ Current and future real estate investments should be factoring in the risk of future policy changes either updating building codes or putting a financial cost on these emissions.

We believe there is a market opportunity for those companies willing to take steps towards greater sustainability. There is a growing body of evidence that suggests 'green' buildings are likely to see higher rates of long term return than more resource intensive structures. Research from 2010 by the European Centre for Corporate Engagement at Maastricht University highlights that green buildings command premium rental rates and sales prices over conventional office buildings.⁴ Further, effective rents are higher by six to eight percent due to a combination of occupancy levels and rents, and research sees transaction values are up to 18 percent higher. Moreover, evidence on the direct economic implications of retrofitting and retro-commissioning shows that these investments can lead to financial returns that easily surpass institutional investor hurdle rates.⁵

However, awareness of these findings among property market participants is limited, even in the developed US green building market. In Asia, where awareness of the benefits of sustainable business practices lags generally, examples of improved investment returns on green buildings remain more anecdotal and focus on reduced operating costs rather than long term sustainability. There is yet no long-term academic research into the issues of premium for Asian green buildings. This lack of evidence and education is potentially one of the largest stumbling blocks in the journey to a more sustainable built environment and is a key opportunity for collaboration between responsible investors and academic institutions and research houses.

Additional environmental concerns for the sector include the over-development of Hong Kong's most valuable asset – its harbour – as well as ongoing resource availability, related to the increasing scarcity of water and some construction materials. Lastly, the lack of government regulations in place to control the development of land adjacent to national park land has caused increasing public anger this year.

Social

Social risks and opportunities can be categorised in relation to consumers, employees and the community. From a consumer perspective, a proportionally large number of Hong Kong residents are active participants in the domestic real estate market but often receive inaccurate or incomplete information about the properties they buy. Prices are further influenced by misinformation and unrestricted speculation. Similar to environmental impact issues, social issues in real estate are likely to affect future policy. In this case, the drive to increase transparency in the property marketplace will be a continually important issue for investors.

'Affordable' or 'low income' housing has not historically attracted interest from Hong Kong's private developers, who tend to focus on high-end developments with higher yields. However there is a potential growth opportunity in this sector, given the increased need to house migrant labour, as well as the Chinese government's moves to assure a sustainable property market throughout Greater China, including the Special Administrative Region of Macau. Opportunities in social housing may even develop in Hong Kong as the government considers ways to meet the needs of the majority of residents who are unable to afford a primary residence. As of 30 March 2010, 30 percent of the population lived in public rental housing.⁶

Employee issues are an important aspect of the real estate supply chain, particularly regarding health and safety factors during the construction phase. This report will highlight the risks caused by the lack of control that Hong Kong real estate developers have in their diverse supply chains. Whilst cost remains the primary driver for contractors who win projects, we also analyse construction companies that are taking the lead in managing their ESG risks, thereby differentiating them in the competitive construction marketplace.

Governance

Good corporate governance is always required to maintain the integrity of businesses, financial institutions and markets. In turn, good governance is central to the health and stability of Hong Kong's economy. Listed real estate and construction companies represented 14 percent of the local stock market at the end of 2009. The industry also provided substantial revenue for the government-Through the land bidding system. In addition to the revenue generated from land sales and property tax, almost 17 percent of Inland Revenue collections were from stamp duty in the financial year to 2009, a total of HK\$32.2 billion.

The alignment of interests between a small number of large Hong Kong developers and the Hong Kong government has been brought into the spotlight recently due to a number of high profile incidents that have demonstrated the lack of transparency in the real estate transaction process. This report examines the governance disclosures of the largest Hong Kong developers as well as the independence, quality and leadership of boards. This is found to be particularly important at listed companies with a large influence from a single group of family shareholders, who may not always act in the best interests of other minorities.





KEY INSIGHTS

1. Hong Kong real estate sector ESG reporting lags global peers. The diversified conglomerates are innovators and see sustainability as a market opportunity.

Leading ESG disclosure comes from Hang Lung, Sun Hung Kai and Sinoland. However, their overall scores lag their global and regional peer group, with particular weakness in reporting in the Environment and Social areas. We see improved reporting across all areas from Swire Pacific and MTR, who are major landlords and property investors in Hong Kong. Both companies are involved in some of the most innovative projects. MTR is financing retrofits to rail stations in collaboration with the Clinton Climate Initiative. Swire Properties, the property subsidiary of Swire Pacific, has a portfolio of certified 'green' properties and an interesting approach of analyzing energy efficiency across their entire building portfolio.

2. Government and property companies could be more vigorous in reducing emissions.

Hong Kong's built infrastructure uses 89 percent of the territories electricity,⁷ so from an environmental perspective, buildings have rightly become the focus of progress on emissions reduction. Despite this only Swire Pacific and Sinoland disclose emissions to the Carbon Disclosure Project, an international standard for transparency on emissions. The government has so far taken a hands-off approach to regulations and incentives in this area. Comparisons with Singapore outline a lack of public target setting and limited financial incentives, until the latest budget, 2009-10.

3. There is a growing focus on energy efficiency but the development and impact of retrofits could be increased.

Energy efficiency initiatives are the backbone of improving buildings sustainability in Asia given their ability to deliver both environmental benefits and tangible cost savings. Although new sustainable buildings often attract the most press, the 400 million square feet of floor space already constructed in Hong Kong provides the greatest opportunity to improve the city emissions, as well as deliver returns to investors.

4. Data on resource use is critical to investment decisions.

For both water and energy, improvements and efficiencies will come from understanding the quantity of resources used, and utilising this data to set baselines from which to move forward. This information can also be used to select investments that deliver reductions in carbon emissions and also ensure upfront investment is paid back quickly. All of Swire Properties' energy investments have a payback period of eight years or less.

5. Cost still drives contractor choice in the supply chain.

Cost remains the primary factor when choosing a lead contractor. However, when planning sustainable buildings in Hong Kong, developers are repeatedly turning to specialist companies with the expertise to deliver on increasingly technical projects with sustainable objectives such as grey water recycling, natural light maximisation and renewable resource usage. This comprises a small group of companies in Hong Kong, including Gammon Construction. The completion of these projects requires strong supply chain management to ensure that buildings deliver on their expected environmental efficiencies. However, strong supply chain management is required on all projects and safety issues in construction must remain the priority above all other considerations. The reputational impacts of accidents on work sites are still the primary driver for improvements in this area, as the level of fines, penalties and litigation remains low.

6. Affordability is the key but elusive issue for consumers. The Gini coefficient, which measures the inequality of a distribution, confirmed in 2009 that Hong Kong has the greatest disparity between rich and poor amongst all global developed economies.⁸ Developers have become a focus of public frustration because of their role in residential price escalation. With the government's laissez-faire approach to policy and the deep pockets of mainland Chinese investors, local residents are increasingly failing to make it on to the property ladder. This will become a growing social issue if Hong Kong's public housing programme does not improve.

7. The rights of construction workers are not upheld by employment contracts. Employee rights in the value chain are limited in Hong Kong. Although construction workers have the right to join a union, employer contracts are written such that a striking employee will almost always be fired. Minimum wage legislation will be implemented in 2011 and the impact of an aging workforce, combined with a large number of infrastructure projects, will become a challenge for the SAR. Power may shift slightly as construction companies battle to keep employees with relevant skills.

8. Transparency and control must be improved in the sales process. The marketing and subsequent sales at 39 Conduit Road, a luxury development by Henderson Land, provide the best examples of the lack of transparency in the sales process in Hong Kong. Whether related to the renumbering of floors, the fact that 20 apartments were reported sold at record prices but the transactions never materialised, or even the irresponsible marketing practises of developers to lend to overextended buyers, it is clear that consumers need more protection. The real estate industry appears to understand the reputational impact of these incidents. The Real Estate Developers Association, an industry association representing some of the largest developers in Hong Kong, has appointed Ogilvy PR to complete a stakeholder audit to understand how it is perceived and to put together a communications plan for the future.

9. The land sales process should potentially be reviewed. The aged, colonial land tenure system in Hong Kong has helped create an oligopolistic market with a small number of large developers with powerful land banks that have the financial strength to participate in Hong Kong's buoyant property market. The reduced competition motivates large developers to discuss joint ventures during auctions and to place bids reflecting the market sentiment of a small number of powerful investors. The potential introduction of a competition law or a review of the land tenure system could greatly influence how developers currently conduct their business.

10. Independence of the board is needed to ensure strong governance. The lack of board independence is one of the key areas of corporate governance weakness in the Hong Kong real estate sector. Only 17 percent of real estate companies have more than 50 percent independence on the board. This low performance is in line with a report from CLSA, which puts Hong Kong companies ten points behind other markets in Asia in terms of independence.⁹ For institutional investors, the importance of having truly independent directors is particularly acute in Hong Kong where the leadership of many mega-companies still comes from within the controlling families.

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REAL ESTATE

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INTRODUCTION

Hong Kong is a group of 260 undulating islands surrounding a sheltered deepwater port. It has a total land area of around 1,100 square kilometres, a coastline of 730km and a population of approximately seven million¹⁰ with 6.8 million residents and 200,000 'mobile' workers. Hong Kong is one of the most densely populated places in the world due to its distinct topography, its natural harbour and steep hillsides. Less than 25% of Hong Kong's total area is developed, but there is heavy urban concentration in low-lying areas.¹¹ The land population density stands at around 6,500 persons per square kilometre on average, and Kwun Tong, with over 50,000 persons per square kilometre, was the most densely populated among the District Councils. Despite its small size, Hong Kong remains the most vibrant business hub in Asia and was the 11th largest trading entity in the world in 2009.

The Government's housing policy is premised on three main guiding principles. Firstly, to provide adequate public housing for rental. Secondly, to micro-manage land supply, and withdraw as far as possible from other housing assistance programmes to minimise intervention in the market. Thirdly, to maintain a fair and stable operating environment to enable the healthy and sustained development of the private property market.

Beyond housing the SAR's residents and providing financial returns to property investors, Hong Kong's land and buildings play a critical role in the region's economy; listed real estate companies represent of the Hong Kong Stock Exchange (HKEx), create wealth for numerous individual real estate investors when property values rise, and provide substantial revenue for the government through the land bidding system. The government expects to make over US\$4.4 billion from lucrative auctions in 2010.¹²

A range of factors determines the level of investment returns in the market. In 2010, the surge in Hong Kong property prices has been driven by high demand, a low interest rate environment, improved employment figures and wages coupled with a highly restricted supply of new developments coming to the market. High unit prices are maintained to ensure that developers achieve returns that justify the high upfront investment required to acquire the rights to develop land plots.

This is not to say that prices only increase. Indeed, Hong Kong's house prices are among the most volatile in the world. The recent global financial crisis showed just how volatile the property markets can be; According to the Ratings and Valuation Department (RVD), Hong Kong's residential price index fell 17 percent (18 percent in real terms) from June to December 2008 but had risen by 20 percent (21 percent in real terms) again by August 2009.¹³ By September 2010, prices had risen by another 45 percent and are now on par with 1997 prices, the previous bubble that was followed by a six-year slump, that saw values halve.

Most governments are concerned with volatility in the domestic property market. In Hong Kong, however, where the government draws substantial revenues from the rising land prices through the land tenure system, as well as the real estate market's general contribution to the region's economy, the boom and bust cycle attracts significant political attention. Government efforts this year have tried to smooth spikes by raising down-payment ratios and accelerating the sale of land for development.¹⁴

In addition to these cooling down measures, other government efforts in the property market in 2010 including new rules about how properties are sold in Hong Kong and further government measures on the mainland aimed at controlling prices are impacting responsible investors. There has also been a highly public investigation into one developer following the collapse of flat sales at 39 Conduit Road, a prestigious residential property. Nonetheless, the fundamentals of the property market seem robust, with demand driven by low



interest rates, improving employment figures and wages matched against a continued restriction of supply of apartments coming to the market.

In addition to strong regional macro and micro economic factors influencing both the property market and Environmental Social and Governance (ESG) issues through the value chain, there are a number of features of the Hong Kong property market particularly relevant for responsible investors:

- Land supply in Hong Kong is extremely limited with a land area of only 1,104 square kilometres, of which three-quarters is countryside.
- Land supply is controlled by the government and can be released at will
- The Hong Kong real estate market is an oligopoly, dominated by few major developers with strong links to other important business areas

This report will begin by benchmarking ten large HKEx-listed developers that are active in Hong Kong. To add further dimension to the report, we benchmark two large conglomerates with property businesses, MTR and Swire, which are also important players in the Hong Kong property marketplace.

Figure 2: Responsible Research Hong Kong property universe

Company	Stock Ticker
Cheung Kong	1:HK
Hang Lung Properties	10:HK
Henderson Land Developments	12:HK
HongKong Land	HKL:SP
Hopewell Holdings	54:HK
Kerry Properties	683:HK
MTR Corporation	66:HK
New World Developments	17:HK
Shimao Property Holdings	813:HK
Sino Land	83:HK
Sun Hung Kai Properties	86:HK
Swire Pacific Group	19:HK
Wharf Holdings	4:HK
Wheelock & Co	20:HK

Source: ASR™

Given the importance of mainland China in the current and future portfolio of Hong Kong developers, we also review the practices of five leading Chinese developers, some of which are listed in Hong Kong and the rest in mainland China.

Figure 3: Mainland Chinese companies included in analysis

Company	Stock Ticker
Agile Properties	3383:HK
China Vanke	2:CH
Guangzhou R&F	2777:HK
Poly Real Estate	600048:CH
Renhe Commercial	1387:HK

Source: ASR™

Finally, we benchmark three global real estate companies in order to compare Hong Kong ESG reporting to international practices. These companies are drawn from Europe, US and Australia and have demonstrated strong sustainability practices.

Figure 4: Global real estate companies included in analysis

Company	Stock Ticker
British Land (United Kingdom)	BLND:LN
Lend Lease (Australia)	LLC:AU
Jones Lang LaSalle (United States)	JLL:US

Source: ASR™

This comparative benchmarking analysis will provide specific insight into the subsequent sections of this report focused on ESG risks and opportunities for responsible investors.



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COMPANY BENCHMARKING

ESG reporting through corporate social responsibility (CSR) publications and sustainability reports has been on the rise in Asia in recent years, rising from 12 percent of global CSR reports five years ago to 20 percent today.¹⁵ Several companies in Asia appear to understand that such disclosure can improve their reputation and competitiveness. Nonetheless sustainability reporting remains far from the norm for most companies in Hong Kong. Reporting on ESG issues by HKEx-listed companies will remain voluntary even after the much-anticipated guidelines on reporting are issued by the exchange in early 2011.

This report will use our proprietary Asian Sustainability Rating™ benchmarking tool to evaluate the disclosures of listed real estate companies in Hong Kong. ASR™ is an ESG benchmarking tool developed by Responsible Research in collaboration with CSR Asia. It was first launched in 2009 and this year, 542 companies across the ten countries in the index 'MSCI AC (All Country) Asia ex Japan' have been scored against leading indicators of sustainability. ASR™ scores are determined by examining the publicly available information of these leading listed companies. The results provide investors, companies and other stakeholders with a view of strategic sustainability of these companies.

ASR™ methodology

The ASR™ research methodology uses a proprietary set of 100 indicators covering all areas of sustainability. These indicators are grouped into four ASR™ categories – General, Environment, Social and Governance – and were carefully selected in order to represent the most realistic assessment of achievable best sustainability practices for Asian companies in 2010. In theory, any company could aspire to and achieve a 100 percent rating on ASR™ within a few years of monitoring and reporting on these fundamental ESG issues.

All ASR™ assessments are completed by highly qualified analysts in Asia and are based on publicly available information including, but not limited to, annual reports, sustainability reports, corporate communications, exchange filings, press releases and web site information. The emphasis on the use of publicly available information rather than company interviews is based on the assumption that reporting is a proxy on sustainability management and performance. Although we acknowledge that it is challenging for companies to report on all activities being undertaken, we believe it is vital that companies prioritise the communication of their internal practices in order to better inform investment decisions.

To provide additional depth to the research when conducting the ASR™ scoring and analysis, a number of steps are taken, that are detailed in our report, ESG Reporting Uncovered. ASR™ recognises the need to focus the assessment of sustainability reporting on the most material issues for a sector. In light of this, sector-specific ASR™ indicators have been added for high impact sectors. In the case of real estate, an example of a sector specific indicator is whether a company has yet undertaken an internationally certified 'green' or sustainable building development. These sector specific indicators are included as a separate score and are NOT included in the ASR™.

Hong Kong leaders lag their regional peers in ESG reporting

Based on ASR™ scoring, the leading Hong Kong real estate companies in terms of ESG disclosure are Hang Lung, Sun Hung Kai and Sinoland. Their overall ASR™ scores, and their scoring across the four ASR™ categories, are summarised below along with an alphabetized list of the other listed companies included in the analysis. More detailed data is available by contacting ASR™ directly at info@asiansr.com. Company requests will be handled by CSR Asia.



Figure 5: ASR™ leaders in Hong Kong real estate - developer

Company Name	Code	ASR™	Gen.	E	S	G	SectorcSpecific
Hang Lung	10:HK	39%	31%	20%	19%	84%	60%
Sun Hung Kai	16:HK	32%	85%	15%	3%	56%	20%
Sino Land	83:HK	31%	15%	20%	19%	64%	60%
Agile Property							
Cheung Kong							
China Overseas							
China Vanke							
Guangzhou R&F							
Henderson Land							
HongKong Land							
Hopewell Holdings							
Kerry Properties							
New World Devs.							
Poly Real Estate							
Renhe Commercial							
Shimao Property							
Wharf Holdings							
Wheelock and Co.							

Source: ASR™

In our recent report, 'ESG Uncovered - Asian Sustainability Rating™ 2010', we found that as a market, Hong Kong is one of the poorest disclosers of information on ESG issues in Asia. With an ASR™ of just 36 percent, it was placed eighth out of ten countries in the report, ahead of only the Philippines and China. It should be noted that the Hong Kong universe was strongly influenced by poor disclosure in the real estate sector, which makes up 53 percent of the ASR2010 universe in Hong Kong by free float market capitalization.¹⁶

Indeed, although Hang Lung, Sun Hung Kai and Sino Land lead their real estate peers in Hong Kong, their disclosure is nonetheless weak compared to other Asian real estate companies. For example, City Developments from Singapore leads the region with an ASR™ of 84 percent, Ayala Land from the Philippines scores second with 77 percent and another Singaporean company, CapitaLand, places third with 69%.

Sustainability reporting in Hong Kong

Looking at the real estate sector scores in more detail, reporting in the environment and social categories was particularly weak compared to governance- much of which is mandated by regulators. Environmentally, none of the Hong Kong 'leaders' above publicly disclosed their water or electricity use or emissions or waste production across their entire property portfolio. In the social category, there were no reports of how companies proactively managed health and safety

issues across their supply chains. Resource utilisation and health and safety issues are traditional focus areas for developers of large construction projects, so it is interesting that public disclosure of information in this area is so weak.

By widening the scope of this report to include listed conglomerates that are active in Hong Kong's property sector, MTR and Swire Properties (a subsidiary of the Swire Pacific Group) were included in the benchmark analysis. Both are major landlords and property investors in Hong Kong but are not counted as real estate companies according to the Global Industry Classification Standard (GICS) used in the ASR™ scoring. Both MTR and Swire have a more robust approach to reporting on ESG issues than their real estate counterparts and score more highly across all ASR™ categories.

Figure 6: ASR™ leaders in Hong Kong real estate – conglomerates with property business

Company Name	Code	ASR™	Gen.	E	S	G	Sector Specific Reporting
MTR	66:HK	72%	85%	65%	56%	92%	60%
Swire Pacific	19:HK	60%	62%	60%	50%	72%	60%

Source: ASR™

To provide further perspective, ASR™ scored the sustainability reporting of three large international real estate companies whose leadership on sustainable real estate developments around the globe would provide a global view of progress. We found that their reporting was stronger across the board, with the greatest disparity with the Hong Kong leaders being in Environment and Social categories.

Figure 7: ASR™ global real estate peer group

Company Name	Code	ASR™	Gen.	E	S	G	Sector Specific Reporting
Lend Lease	LLC:AU	91%	82%	95%	94%	92%	80%
British Land	BLND:LN	88%	91%	90%	84%	92%	60%
Jones Lang LaSalle	JLL:US	86%	100%	80%	81%	88%	80%

Source: ASR™ 2010

Sector specific ESG issue analysis

Sustainability reporting provides a more complete understanding of the risks and opportunities associated with an investment. Although education and awareness on sustainability issues is at a starting point, responsible real estate investors are increasingly seeking quantifiable ESG data to inform their investment decision process. Significant work is underway globally to create sector-specific, quantitative key performance indicators (KPIs) across the ESG spectrum to incorporate into financial analysis and corporate evaluation.



The benchmarking in this report does not attempt to quantify the work of companies in key sustainability areas in against relevant KPIs therefore these do not impact our scoring in this report. However, our scoring does attempt to focus on sector specific issues for real estate companies by assessing companies' reporting against areas such as whether they had invested in certified green buildings. The sector specific scores provide insight beyond the ASR™ score on a companies' disclosure on issues which are material for the sector. The table of results in this area shows the leaders from the ASR™ again at the top of the table, however other companies, such as China Vanke, who are penalised by their lack of reporting in English in the main ASR™ score, make a strong move up the table. Only China Vanke scores points on all the selected sector specific criteria.

Figure 8: Hong Kong and Chinese companies disclosure on ASR™ Sector Specific

Company Name	Sector Specific Score
China Vanke	100%
Sino Land	60%
MTR	60%
Swire Pacific	60%
Hang Lung Properties	40%
Sun Hung Kai	20%
Henderson Land	20%
Renhe Commercial	20%
Hong Kong Land	20%
Agile Property	10%
Poly Real Estate	10%
Kerry Properties	0%
Guangzhou R&F	0%
Wharf	0%
Hopewell	0%
China Resources Land	0%
China Overseas	0%
Evergrand Real Estate	0%
New World Developments	0%
Cheung Kong	0%
Wheelock & Company	0%
Shimao Property	0%

Source: ASR™ 2010

Quantitative data - following the money

As our ASR™ methodology evolves, additional criteria will be developed with a move towards quantifying ESG performance on notable KPIs. Currently there is a general lack of quantifiable reporting across the majority of real estate companies. For example, we searched for information on investments in green building and sustainable technologies but found limited information.

Even those real estate companies that lead on ESG disclosure have patchy reporting with variable utility for potential investors. It is therefore challenging to reliably include this information into investment decisions and incorporate ESG issue management in a company's valuation.

Figure 9: ESG information available in leading Hong Kong companies

Company Name	ESG Disclosure
Swire Pacific	Subsidiary Swire Properties reports US\$4 million for "sustainability features and installations for new projects in Hong Kong and mainland China." This is 0.54 percent of what Swire Pacific reports spending on investment properties and hotels in Hong Kong and mainland China in their financial statements.
Sino Land	Non-financial ESG reporting on flagship green properties and certain sustainability features. Disclosed payback period on certain sustainability features. Reported US\$6.5 million for green initiatives for their flagship Citywalk Mall.
Hang Lung	Non-financial ESG reporting on flagship green properties and certain sustainability features.

Source: Company annual reports

We did not find any companies with exhaustive disclosures on capital commitments to green developments and green buildings. Rather almost all were willing to disclose PR-friendly flagship properties or sustainability features being implemented in a handful of properties. However, in this instance, they would not often comment on incorporating sustainability features within the rest of the portfolio. A few disclosed information on capital expenditures for a specific flagship project or payback periods for certain sustainability features. Even Swire Properties did not quantify the specific gain in value or lifetime efficiency savings projected from its US\$4million in its "sustainable features and installations."

Although an increasing number of real estate companies in Hong Kong and China are making non-financial ESG disclosures, even the leaders struggle to meaningfully link these actions to the improved long-term viability of their business model. Without quantifiable ESG data to populate KPIs, investors are denied a straightforward method to assess a company's sustainability commitments.

The lack of detail on overall investments in green building could be due to the tendency to look at green buildings from a different perspective, where lifecycle costing is used rather than shorter time horizons. This approach helps move decision-making forward and attract capital up front with the assurance that operational cost reductions over the lifecycle of the building will justify this investment. This could be why even global sustainability leaders such as British Land focus on investment in 'environmental protection' in their financial disclosures rather than on capital investment in sustainable projects.



Figure 10: ESG information available from British Land

Company Name	ESG Disclosure
British Land	Reports spending approximately US\$1.5 million on 'environmental protection', which in their reporting is narrowly defined as insurance for environmental liability, landfill disposal costs, carbon emission offset certificates, environmental non-compliance costs, external consultant fees and external certification of ISO 14001. This comes to 0.51 percent of the US\$274 million for capital expenditure and development reported in their financial statements.

Source: Company annual reports

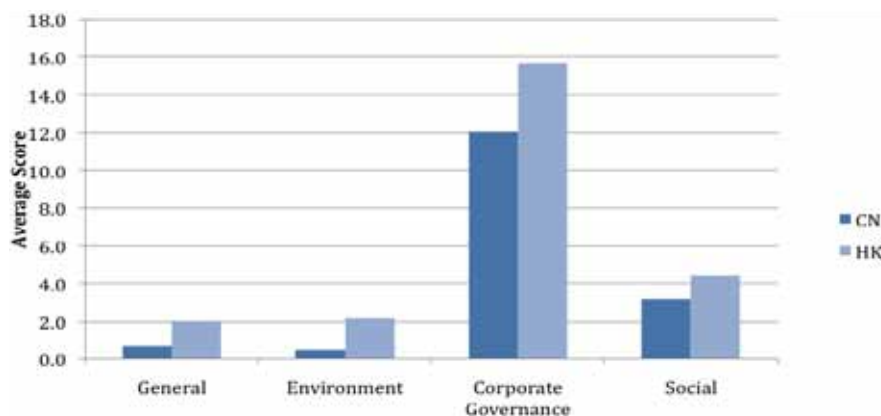
Until ESG reporting is integrated into financial statements, the lack of accurate and relevant data will make it difficult for investors and stakeholders make fully informed decisions. Though a few companies globally, such as British Land, provide a measure of integrated reporting, insightful reporting on ESG issues is sorely lacking in the real estate sector.

The Hong Kong Real Estate Developers Association (REDA) has recently been appointed to conduct a public perception audit to gauge opinions of stakeholders regarding industry practices and operations. It remains to be seen whether the feedback they receive will help improve ESG reporting by Hong Kong-listed real estate firms.

Hong Kong and mainland Chinese company ESG reporting compared

As previously mentioned, Hong Kong ranked two places higher than China in our country-comparative ASR™ 2010 report. If the real estate sector scores are taken alone, Hong Kong places higher than their mainland Chinese counterparts on each of the four ASR categories: general, environment, social and governance. In particular, the three leaders, as well as MTR, have a strong ESG reporting culture, publish sustainability reports and disclose emissions from business operations (including air and water pollutants and GHG levels).

Figure 11: ASR Scores of Hong Kong and Chinese Real Estate Companies Compared



Source: ASR 2010

However, mainland Chinese companies are improving their reporting, with both the Shenzhen and Shanghai stock exchanges, as well as the State-owned Assets Supervision and Administration Commission (SACAC) issuing guidelines that encourage companies to make regular evaluations and environmental performance disclosure. These initiatives stem from the emphasis that China's regulators – namely the China Securities and Regulatory Commission (CSRC) and the Ministry of Environmental Protection (MEP) – are placing on environmental performance and compliance requirements.

To support its self-proclaimed status as 'Asia's leading financial centre', Hong Kong will need to improve its sustainability reporting standards. For example, the Dow Jones Sustainability Index (DJSI) Asia/Pacific tracks the financial performance of leading sustainability-driven companies in the Asian region. Twenty Australian and twelve South Korean companies are in the index compared to Hong Kong's three, although the market capitalisation of HKEx at the end of 2009 was around twice as large as Australia's index and three times larger than that of South Korea.

The Hang Seng Index recently commissioned its own sustainability index, based on the reporting and statements of large listed companies. The final list includes the companies on the DJSI, namely CLP, MTR and Li & Fung. It also includes six companies from the real estate sector, which we identify as one of the poorest disclosers of sustainability information in Asia.

Even more surprising, perhaps, is the inclusion of Henderson Land and Cheung Kong as two of these six property companies. Both companies scored below 25 percent in the ASR™, as there is little publicly available information regarding their environment and social initiatives. This suggests that the index relies on engagement with companies to select constituents. We feel this strategy can lead to bias in scoring as results are then based on which companies respond to questionnaires. Additionally, if the company conducting the benchmarking is also offering corporate advisory services to Hong Kong and Chinese companies looking for selection, this could, lead to serious conflict of interest in the methodology.

The ASR™ methodology developed by Responsible Research uses only publicly available information that is also accessible to the global investment community to ensure that any bias is reduced in the assessment process.



ISSUES FOR
RESPONSIBLE
INVESTORS

ENVIRONMENT

SUSTAINABLE BUILDINGS: A BUSINESS CASE

The growth in acceptance of 'green buildings' is vital to reduce the environmental impact of the resources required for the 11 million square metres of building space planned for development over the next 20 years, described in the "2030 Vision" statement by the Hong Kong government.

Hong Kong's Building Environmental Assessment Method (BEAM) Society, the successful local green building certification initiative, defines a green building as one that "provides the specified building performance requirements while minimizing disturbance to and improving the functioning of local, regional, and global ecosystems both during and after its construction and specified service life".¹⁷

True 'green building' is the a method of constructing environmentally efficient structures rather than tacking expensive additional features and technologies on to existing designs. Green buildings utilise an integrated approach to design and construction that ensures that structural engineers, designers and architects collaborate to create the least environmentally impactful buildings with neutral to low cost impacts. As BEAM states, "a green building optimises efficiencies in resource management and operational performance, and minimises risks to human health and the environment. To this can be added social equity and economic viability."¹⁸

Operational cost reductions

Water and energy use can account for up to 80 percent of the ongoing operating costs of a building, and building green is one method of delivering on corporate targets for reductions in the use of these increasingly costly natural resources. Research published by the European Centre for Corporate Engagement in 2010 found that energy efficient buildings have better economic performance than conventional buildings with more stable occupancy levels, rental higher by six to eight percent, and comparable transaction values higher by up to 18 percent psf.¹⁹ Although research continues to build, awareness of these findings among property market participants is still limited and greater education and longer trend analysis is needed for the cynics to be persuaded.

Another issue for developers is that the resources such as power, water and materials are often subsidised or externalities not incorporated in pricing, which means that conserving them does not drive investment decisions. Changes in this area, for example an increase in water pricing or real time carbon taxes, are a real risk in Asia and would obviously accentuate the business case for green building.

It should be noted that a recent US study found that green buildings there have a high degree of variability between the developers modelled/predicted energy use intensity (EUI) and the actual realised EUI. Around 30 percent of buildings were found to perform significantly better than expected with 25 percent performing worse.²⁰

Retrofit opportunities

Despite the growth in the number of new certified buildings, retrofit projects appear to have a greater potential impact on established property portfolios. The scope for improvements on the 400 million square metres of floor space already constructed in Hong Kong is significant. There is also growing evidence that retrofits can lead to financial returns that easily surpass the target hurdle rates for most institutional investors.²¹

The Nexxus building at 77 Des Voeux Road, provides an example of a successful retrofit for investors.



Name: Nexxus Building
Address: 41 Connaught Road Central
Architect: Aedas
Building Details: Commercial building - 18 floors office & 5 floors retail
Size: 265,000 square ft
Investors: Mutual Capital Limited
Asset and Project Management: Pamfleet (HK) Limited
Certification: BEAM Preliminary Environmental Evaluation (PEE) Assessment Gold rating. Full certification not pursued.



Nexxus Building



Source: www.nexxusbuilding.com²²

Nexxus Building, built in 1962, is a 23-storey single block. The scope of the retrofit project was to renovate the entire building retaining only the main structures and some major installed building services. Following the renovation, it is being used as a commercial building with restaurants, retail stores and Grade-A offices.

As part of the re-build, most of the materials that are highly energy-intensive to produce, such as steel and concrete, were retained or recycled wherever possible. Retro-fitting such an old building is a challenging process in Hong Kong, as the building structure was built under an old code and many improvements were required.

The building envelope and services systems for the centralised air-conditioning were designed to reduce predicted annual energy consumption by 14 percent. Energy efficient lifts and lighting were installed and meters for monitoring energy consumption provided. Measures were also aimed to ensure a reduction of 25% in fresh water consumption

Source: BEAM submission papers, Pamfleet.

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The choice to retrofit or to demolish and rebuild is driven by investment issues such as available finance, investment horizon and return targets. An interview with Pamfleet, Nexxus' asset manager and retrofit project manager, highlights the financial – and sustainable – drivers behind its commercial decision.



Pamfleet perspective

Andrew Moore, Principal and CEO of Pamfleet, stated that the decision to sustainably retrofit Nexxus was not driven by tenant demand, or by the expectation that tenants would pay more for energy savings and improved indoor quality.

Rather, in addition to environmental benefits, the choice to retrofit is time efficient as 'commercial downtime' is limited. For example, the Nexxus Building only had a ten-month period with no rental income. The investment team worked with the project team of designers, architects and engineers to allocate the budget based on market demands and areas where value could be generated by sustainable decisions.

Cost savings were achieved in improving the HVAC system and lighting choices, which account for over 90 percent of the building's operating costs of the building. Simon McCartney, a pioneer in LED light use, consulted to Pamfleet to determine the most cost effective lighting choices. However, Mr. McCartney's contribution to Pamfleet was unusual, and such expertise is generally lacking in the marketplace.

Pamfleet emphasises that it is possible to make good long-term commercial decisions as an investor by considering that the company will be held accountable for building for years to come.

Engaging with occupants

Most occupants looking to rent space in Hong Kong do not clearly demand green real estate. Location and price remain the primary drivers in choosing what building to occupy, and tenants could be further educated on the savings that green buildings provide.

Technology helps by make resource use more obvious to tenants. One key way to improve savings is to improve transparency of energy use; CB Richard Ellis (CBRE) studies highlight that introducing separate metering for tenants could deliver energy savings of as much as 21 percent. Swire Properties has also been at the vanguard of development in this regard by offering free energy audits to tenants in their office units since 2008. This enables tenants to be given data and strategies to reduce their energy use and carbon footprint.²³

A significant challenge for the greening of commercial space is what is known as the 'agency issue', whereby efficiency savings need to be split fairly between tenants and the developers who provide upfront financing for the new systems. The existing system tends to deter investment in efficient technologies and prevents developers from exploring all green building opportunities, as they find it hard to recoup the high upfront financing costs back from tenants who will make the savings.



CERTIFICATION OF SUSTAINABLE BUILDINGS

A wide range of sustainable building certification schemes with differing approaches exists globally.

Figure 12: Summary of global green building certification schemes which have been used in Asia.

Origin country & date	Name of Rating System
UK 1990	Building Research Establishment Environmental Assessment Method (BREEAM)
US 1998	Leadership in Energy & Environmental Design (LEED)
India 2008	GRIHA - Green Rating for Integrated Habitat Assessment.
Hong Kong 1996	Hong Kong Building Environmental Assessment Method (BEAM)
Australia 2003	Green Star
Singapore 2005	Greenmark
South Korea 1999	Green Building Rating System
Taiwan 2001	The Green Building Program and Green Remodelling
China 2008	Three Star Scheme
Malaysia 2008	Green Building Index
Japan 2001	Comprehensive Assessment System for Building Environmental Efficiency (CASBEE)
Philippines 2008	Building for Ecologically Responsive Design Excellence (BERDE)

Source: Certification web sites

The three most important schemes for Hong Kong developers are the HK 'BEAM', the US Leadership in Energy and Environmental Design, 'LEED' and China's new 'Three Star' Scheme.

BEAM is the most important scheme to developers in Hong Kong as it is locally developed and managed and is the most widely adopted, having been applied to over 210 developments with over ten million square metres of total floor space as of March 2010. Viewed on a per capita basis, BEAM is one of the most widely adopted voluntary schemes of its kind in the world.

However, LEED has now become the de facto international standard for green buildings and is implemented in over 32,000 projects around the world, comprising over 9.6 billion square feet of construction space across 114 countries.²⁴ While not uniquely tailored to the local Hong Kong market, LEED is upheld as a global standard in the minds of multinational tenants seeking to occupy certifiable 'green' space in Asia.

The Chinese 'Three Star' certification scheme, developed just four years ago, may be interesting to Hong Kong developers looking to grow in China in the long

term, but the program has got off to a slow start, with only one certified building in China and none so far in Hong Kong.

Comparing certification

A more detailed review of the various schemes is shown in Appendix 2. However, five important commonalities are as follows:

Lifecycle: all schemes address the impact of a building throughout the lifecycle of its construction, use and demolition

Flexibility: all are credit-based; buildings receive points when they achieve certain predefined standards, thus enabling flexibility in terms of the choice of environmental initiatives implemented

Integrated design: all schemes require developers to collaborate with architects, designers and engineers in order to deliver results

Resource utilization: all focus on minimizing key resources of water and energy in assessment categories

Time: all certification systems have a time component, including the time to complete relevant documentation and time allowed for external independent parties to certify the building.

Despite the commonalities, there are some important differences between these three schemes. Firstly, the weightings for 'credits' for green features differs. One of the criticisms of LEED is that its uniform nature does not weigh resource efficiency differently depending on the building's environment. For example, water efficiency technologies receive the same weighting in a place with limited water resource issues as in locations where water is readily available. Secondly, the scores and rankings vary between the three schemes. In an emerging green building marketplace, these differences in scoring may lead to confusion among developers and owners. A BEAM score of 75 achieves the top rating whereas the LEED platinum standard is only awarded for 80 points. However, despite the divergence in scoring and weightings, individual developments in Hong Kong have achieved both of the highest ratings.

LEED leading globally

It appears that, despite the local flavour provided by BEAM certification, Hong Kong developers are increasingly attracted by LEED's global reach and are using it in mainland China as a unique differentiator to attract MNC tenants. For example, in its annual report, Hang Lung stated that its long-term goal is to "attain LEED certifications for all of our new development projects in the mainland." Among its developments, Palace 66 in Shenyang has been certified as a LEED Gold development and the Forum 66 in Shenyang and Parc 66 in Jinan have received the prestigious LEED Pre-certification for Core and Shell Development (Gold Level). It is developing expertise in-house; it has trained six LEED qualified professionals to date.

BEAM Success

BEAM has nonetheless achieved much in Hong Kong. Swire Properties retrofitted Cityplaza 3&4 which has delivered associated cost savings of eight percent per annum and a payback of the initial investment of US\$387,000 after three years.²⁵ Their latest development at One Island East is their latest successful BEAM Platinum development.



Figure 13: One Island East



Source: Swire Properties Web Site²⁶

Raymond Chow, Executive Director of Hongkong Land, has commented that since the founding of BEAM, all of Hongkong Land's new and existing office buildings are undergoing or have been assessed under the new building assessment.²⁷ Despite this diligent approach, Hongkong Land does not yet produce a public sustainability report to present information on management of its ESG risks to its stakeholders and shareholders. In contrast, Swire Properties produces an annual sustainability report that is externally certified by Hong Kong Quality Assurance Agency (HKQAA) as GRI A+ grade.

Lack of detailed environmental disclosure by large property developers potentially indicates a management view that green building is a marketing issue and not being seen as a business tool to increase long term shareholder value. Companies which are able to articulate their impacts and target reductions externally are those where we believe management has really understood where efficiencies can be converted to bottom line growth over time. It is interesting to note how much effort is spent producing glossy brochures focusing on 'luxury retail experiences' and 'greening the retail space' but seemingly very little on how shareholders and tenants could benefit from basic energy efficiency measures. As investors continue to seek further information about how developers are approaching environmental issues, it will be interesting to see whether the ESG reporting of Hong Kong's leading developers will improve.

As discussed in the benchmarking section of this report, Hong Kong companies are still far ahead of their mainland Chinese counterparts when it comes to overall sustainability reporting. However, looking at five large Chinese developers, see Appendix 3, we see that although specific information is lacking in terms of energy and water consumption, there is general and swift movement to embrace the commercial value of 'green' in their developments.

For all Chinese companies and all but the leading Hong Kong companies reviewed in this report, there is little quantifiable data available on environmental issues. Agile, for example, noted in its annual report only that its developments have

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"typically" more than 50 percent green space for residents. The overall lack of measurable information on environmental issues is obviously a clear gap although we take the fact that, for Agile, this disclosure was in the annual report rather than a CSR brochure, as a positive sign that the company is recognising the importance of sustainability initiatives to its business model. We would like to believe that quantitative environmental indicators will be included in annual reports over time. This is potentially more likely in mainland China than in Hong Kong, following the focus on energy efficiency in the government's twelfth Five Year Plan (2010-2014).

If we were to identify an overall leader in reporting on environmental issues in China, Vanke would be selected. This is based on a number of factors including its completion of the first LEED and Three Star developments in the country. Its completion of Phase 4 of the Dream Town, Shenzhen in June 2009, is particularly notable as, to date, it remains the sole residential project in China to be awarded the Three Star certification under the "Green Building Design Evaluation Criteria". For three years, Vanke has published its 'Green Book', an annual corporate responsibility report with continually improving scope and detail. Vanke further focuses on prefabricated and refurbished units, communicating the positive impact on energy saving construction techniques. The company plans to use prefabricated structures in its entire newly built apartment stock in 2010, a total area of one million square metres. Management is successfully linking current environment and social issues by targeting low-income households and reduced resource impacts. In 2009 China Vanke was voted by Fortune as one of the "Top 10 Green Companies in China" for its research into prefabrication and urban low-income residential properties.



EFFICIENCY ACROSS A PROPERTY PORTFOLIO

In Hong Kong, through BEAM certification, 200 developments are identified as certified 'green'. Green building strategies have mostly been adopted by larger real estate developers who want to demonstrate environmental initiatives at flagship projects. Unfortunately the rest of their property portfolios tend to consist of unrenovated, inefficient and resource-hungry buildings with negative environmental impacts.

Real estate companies are recommended to focus not just on flagship properties but on bringing their whole portfolio to reach higher environmental standards. Rigorous independent benchmarking of a portfolio can help developers determine where capital can be invested to improve returns from improved efficiencies. This problem is not specific to Hong Kong. Even in Europe, the leader in energy efficient buildings, the European Centre of Corporate Engagement found that a strikingly low number of property companies report actual numbers on energy consumption (19 percent), water consumption (16 percent), waste recycling (11 percent) and carbon emissions (14 percent). Less than 40 percent of respondents have 'smart meters' and fewer than 22 percent have an environmental management system in place.²⁸

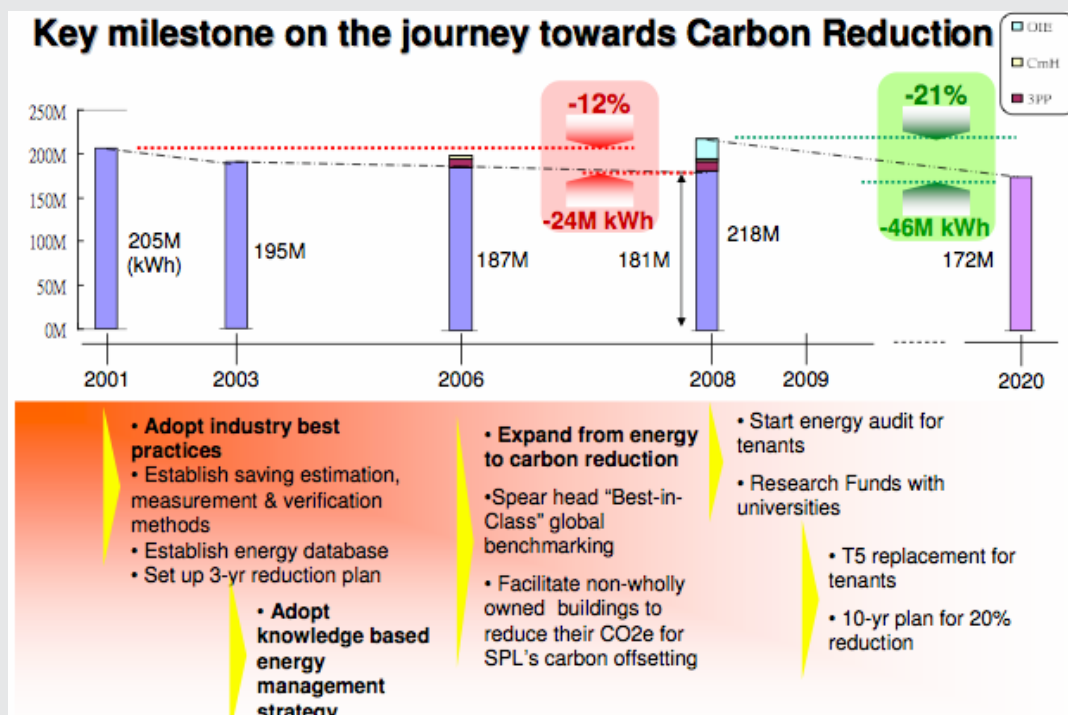
The Swire Properties case below reviews the assessments that lie behind their leadership in energy reduction targets.

Case Study: Swire Properties Energy Reduction across property portfolio

Swire Properties has set itself a ten-year (2010-2020) Energy Reduction Plan targeting a 20 percent energy consumption reduction by 2020 against a 2008 baseline. The strategy applies to 40 types of projects with a total of over 300 initiatives across 12 office towers, four retail malls and one serviced apartment building. This will achieve total annual savings of US\$7 million.



Figure 14: Key milestones for carbon reduction



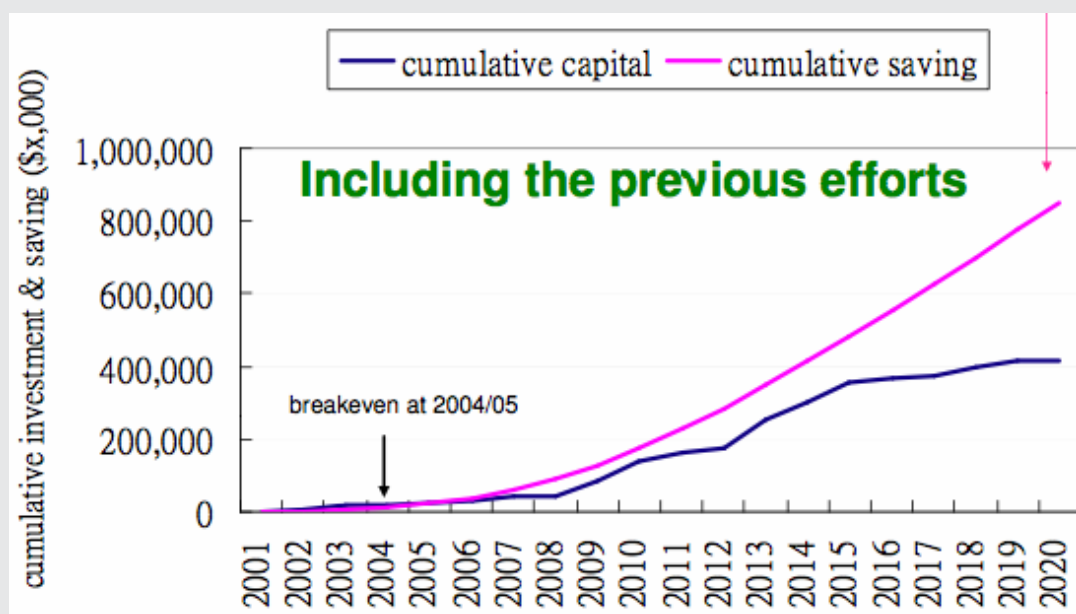
Source: Swire Properties 2010

To create a knowledge-based energy management strategy, a baseline was developed, based on a comprehensive energy database. As Swire Properties moved to focus more on climate change and emissions reduction, the strategy has accordingly placed more emphasis on carbon reduction.

Tenants were engaged throughout the process and energy audits enabled them to understand their energy use and ways to improve efficiency in malls and offices, particularly in the consumption of air-conditioning. Given the large amount that is spent on lighting, light bulb replacement was also one of the initiatives targeted.

Following their successful reductions in 2001-2010, Swire Properties is aiming for a further 21 percent savings in energy to be achieved by 2020. In terms of capital costs, which total US\$48 million, the projects have a targeted payback of eight years or less. With a 2001 baseline, the breakeven point was reached during 2004/2005 and continued investment aims to achieve US\$110 million of savings by 2020.

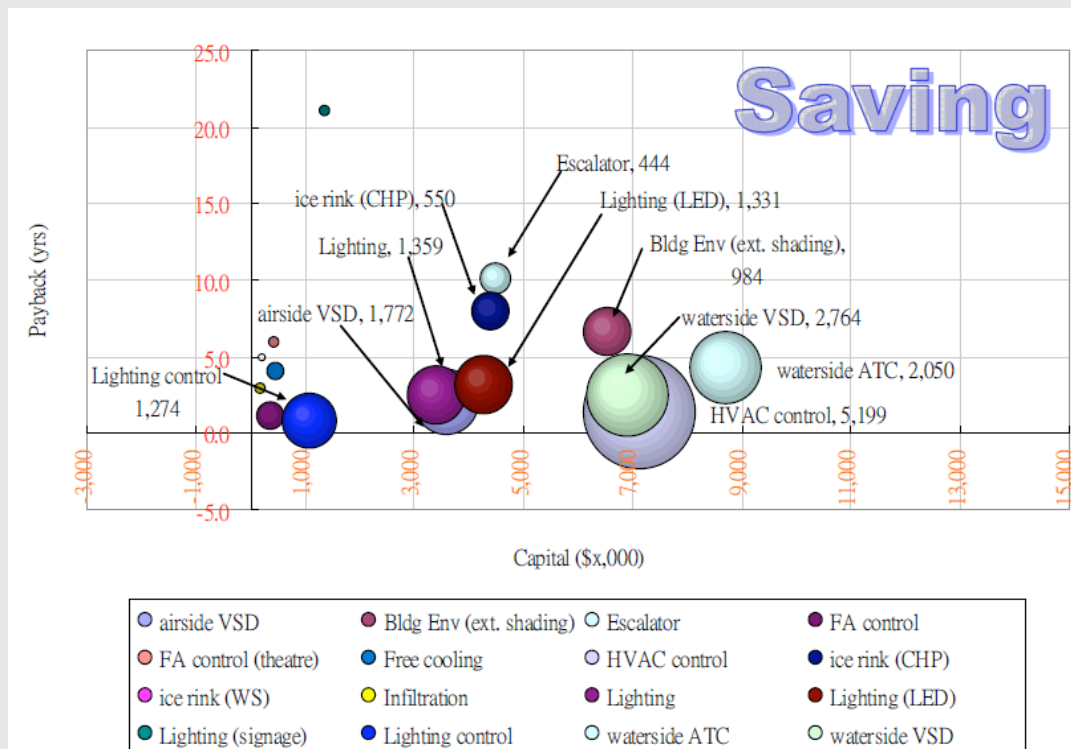
Figure 15: Cumulative investment and saving with 2001 baseline



Source: Swire Properties, 2010

By completing these projects, Swire Properties is gaining vital experience in delivering savings, understanding capital required and managing the payback periods for specific building features. The figure below highlights how detail on payback timescales, capital requirements and savings can be illustrated to create a landscape against which decisions can be made on priorities for future developments.

Figure 16: Evaluation of capital requirements, payback and cost savings



Source: Swire Properties

The company is also committed to remain at the forefront of energy efficient technology though the establishment of three research funds, two with Tsinghua University and one with Hunan University, which will provide data not only for internal improvements but also for sharing with industry peers.²⁹

Despite the growth in the number of green building initiatives in Hong Kong, data for even these flagship projects is often not always made public. Consequently, studies across portfolios of buildings in Hong Kong and research on the commercial value of BEAM certification remains anecdotal, which is perhaps one reason why green building strategies have not been more widely adopted. More extensive and collaborative studies could demonstrate savings across larger portfolios of buildings, as is evidenced in mature markets such as the United States where LEED is now well established.

BEYOND OPERATIONAL COST SAVINGS

Productivity improvements

A 2009 CBRE study showed that employees in LEED certified buildings take fewer sick days, saving the employer approximately US\$1,200 per worker per annum and resulting in additional productivity gains. Office workers at 500 Collins Street, a green building in Melbourne, Australia report taking a total of almost 40 percent fewer sick days each month. Another building in Melbourne claims productivity gains of ten percent, generating total annual cost savings of US\$2 million. Green office retrofits in Hong Kong have the potential to make similar significant and quantifiable impacts to both bottom lines, government revenues and economic growth.

Case Study: CB Richard Ellis

CBRE, a global real estate company listed in the United States, which manages many properties in Hong Kong, has shown a strong commitment to environmental initiatives. It operates a growing portfolio of properties that have been specifically developed or refitted according to LEED standards. It has also internally developed 400 LEED-certified professionals. CBRE is using this focus on sustainability to differentiate its property services in the marketplace. This was exemplified in its comprehensive 2009 sustainability report.

Figure 17: CBRE Energy Star and LEED data

U.S. Sustainability by the Numbers	
Year-end 2009	
ENERGY STAR®	
Buildings Benchmarked and Registered	1,284
SF Benchmarked and Registered	233M
Buildings that Earned ENERGY STARS	207
Buildings with ENERGY STARS in Process	20
Buildings Eligible to Apply for ENERGY STARS	162
LEED®	
Existing Building	
– Certified Projects Managed by CBRE	43
– Certified Projects through CBRE Consultation	22
– Projects Pursuing Certification	55
– SF Pursuing Certification	35M
Projects Engaged in Sustainability Services	302
SF Engaged in Sustainability Services	107M
New Construction	
Buildings Certified	3
Commercial Interiors	
Projects Certified	31
Core & Shell	
Buildings Certified	4

Source: CBRE Sustainability Report 2009³¹

Globally, CBRE is developing property in various countries with differing sustainable certification standards. CBRE often applies for both LEED and local certification standards. In Hong Kong, CBRE is pursuing LEED certification for the interior fit-out of its own office. Given BEAM's longstanding presence, limited green building developments to date and general lack of government incentives for green development, LEED is not yet common in Hong Kong. Nonetheless, CBRE is committed to achieving global as well as local standards, and is pursuing LEED certification in Hong Kong demonstrating its business aspirations to be a leading provider of sustainable real estate in Asia.



Market differentiation

Tenant enthusiasm can be vital in creating demand for green buildings, particularly if the green features are a point of differentiation. As Raymond Chow, Executive Director of Hongkong Land, remarked, "increasingly we are seeing evidence of a trend for companies to use their buildings and workplaces to vividly demonstrate their environmental performance and concern for the well being of employees and their communities."³¹

Historically, those in charge of real estate decisions in Hong Kong, tend to fall back on the argument that price and location must lead commitments on occupancy of real estate space by international clients. However, increasingly we are finding that sustainability is an additional factor included as a Key Performance Indicator (KPI) for performance metrics and incentives for MNC's and so companies are beginning to include it in office space selection. Improved corporate sustainability does not have to mean relocating to a new high profile green building – in fact bigger efficiencies can sometimes occur from an interior fit out to upgrade internal specifications of existing building stock to meet international standards.

'LEED for Interiors' currently dominates the market for internal fit-outs in Hong Kong, with projects growing in number from 5 two years ago, to the current 38 projects.³² Although HK BEAM began development of their own interiors standard two years ago, this appears to now be on hold and, it may not make sense to produce two different standards with criteria and best practices changing all the time. Despite questions over the applicability of 'LEED for Interiors' for the Hong Kong built environment, it may be that this becomes the defacto standard for occupiers in Hong Kong, with the added benefit that MNCs can implement the same standard at all offices around the region.

The hotel industry has seen particularly strong growth in the area of market differentiation, with a range of environmentally friendly hotels developed across Asia to date.

Case Study: Upper House Hotel uses sustainable features as differentiator



In 2009, Swire Properties launched Upper House, a 117-room boutique hotel that is their second owner operated hotel in Greater China. This project was prompted by Swire Properties' desire to develop its own hotel brand, increase synergies in its investment property portfolio and reflect its group-wide approach to sustainable development.

The hotel used recycled plywood for the timber floor backing and incorporated renewable materials such as bamboo in furniture and paneling as well as wool and silk in carpets, curtain and furniture fabrics. Efficient lighting was installed as well as an energy management system to reduce the hotel's electricity consumption and greenhouse gas emissions.

Technological features include the use of tablet computers and iPods for paperless check in and to access information about the room. Swire Properties estimates that these paperless initiatives save approximately 1,600 kg of paper and US\$27,000 each year.

Finally, the hotel operates a small fleet of energy saving Lexus RX450H hybrid cars to reduce their guests and its own carbon footprint.³³

POLICY AND ENVIRONMENTAL RISK

Building sustainably can also mitigate risks from policy changes driven by environmental issues. The Hong Kong government often makes policy changes to control property prices; as environmental issues become more acute, and legislators better educated on the complex issues, they may become an increased focus of legislation.

Climate change policy risk

Globally it is estimated that buildings contribute 30 to 40 percent of global carbon emissions and the Intergovernmental Panel on Climate Change (IPCC) identified buildings as offering a significant opportunity for cost-effective reduction of emissions worldwide.³⁴ Governments around the world are implementing policies that target emissions reductions through a range of methods. Some institutional investors are assessing the carbon exposure of properties in their portfolio in light of future opportunities and challenges resulting from changes to environmental policy.



Case Study: Institutional investors focus on climate change

Real estate can constitute large proportions of overall assets in institutional investors' portfolios, giving significant scope for engagement or collaborative action for managers who are seeking to reduce overall greenhouse gas emissions in their holdings.

CARBON DISCLOSURE PROJECT

Recently APG collaborated with PGGM and the UK Universities Superannuation Scheme to survey 688 property managers (with 198 responses) to create a global index of performance on property factors. APG highlighted its view of the double bottom line impact of this approach as follows: "When buildings are made energy efficient the tenant benefits from lower energy costs and the owner from potentially better rent and overall building value. Legislation is the main driver of change, but there is also demand from corporate tenants."

Investors can incorporate relevant information into their standard due diligence process. APG is working on making more of this information web-based and open source so that ongoing monitoring and peer group comparisons are possible. Current comparisons of leaders and laggards highlight that European and Australian property companies are ahead of their Asian peers on reporting on environmental impacts.³⁵

Of all the Hong Kong developers in our universe Swire Pacific and Sinoland appear to be at the vanguard of carbon emissions best practices. They both disclose emissions using the internationally recognised Carbon Disclosure Project framework. Because such a small proportion of companies are disclosing in this way in Hong Kong, information is clearly lacking overall for investors to understand the impact that a price on carbon, carbon tax or any kind of similar legislation would have on their property portfolio.

Government policy driving green building

Compared to much of Asia, the Hong Kong government has been slow to implement regulations and incentives to support the move to a more sustainably built environment. This is normal in the SAR where there is a generally hands off approach to introducing market legislation. In comparison, other countries in Asia are setting strong government targets. For example, Singapore has targeted to 'green' at least 80 percent of its buildings by 2030 and has seen a strong uptake in environmentally friendly new builds and retrofits.



Figure 18: Hong Kong and Singapore government policy on green building compared

	Hong Kong	Singapore
Public Commitment by government	No public commitment for greening of buildings by the government.	Commitment to 'green' at least 80 percent of its buildings by 2030 with all new government buildings built to reach the Greenmark Platinum standard.
Certification scheme launch	BEAM Steering Group formed in 1995 by a collaboration between the Real Estate Developers Association of Hong Kong, Planning Environment and Lands Bureau, Swire Properties, HongKong Land, Hong Kong Polytechnic University and Business Environment Council. ³⁶	Launched by the government agency Building and Construction Authority (BCA) in January 2005. ³⁷
Public Sector Commitment	No commitment to certification or minimum standards on public sector buildings although some flagship BEAM developments are public buildings.	From 1 April 2007, all new public sector buildings and those undergoing major retrofitting works were required to meet minimum standards of environmental sustainability equivalent to the Green Mark Certified level. Upgraded in 2009 to enforce that all medium or large new air-conditioned public sector buildings achieve the highest Green Mark accolade (Green Mark Platinum).
Land sales	No environmental regulations linked to land sales.	For new projects developed on selected new strategic government sales sites, the higher Green Mark standards (Platinum and Gold Plus) have been set as land sales conditions. ³⁸
Current green building stock	210 green buildings representing 2.5 percent of total building stock. ³⁹	500 green buildings representing eight percent of the building stock. ⁴⁰

Source: Government web sites

Despite this relatively slow progress towards legislating for change, a number of government departments in Hong Kong have introduced their own diverse initiatives.

Hong Kong government initiatives

The Buildings Department, whose mission is “to set and enforce safety, health and environmental standards for private buildings”,⁴¹ has a number of initiatives focused on key areas relating to sustainable buildings. These include the continued modernization of mandated building design standards, the promotion of green and sustainable building developments, the reduction of construction and demolition wastes and the promotion of timely maintenance and building repair. Changes in these areas have evolved incrementally as they require enforcement and the lead-time to introduce new mandates is long.

Since 1998, the Electrical & Mechanical Services Department (EMSD) has issued a series of Building Energy Codes (BECs) and has also launched the voluntary Hong Kong Energy Efficiency Registration Scheme for Buildings to promote compliance with these BECs and improve the energy efficiency in buildings. However, private sector participation in this voluntary scheme is low.

Consequently, the government has now decided to mandate compliance by means of legislation similar to that in mainland China and many other countries. The public consultation on the Mandatory Implementation of the Building Energy Codes was launched at the end of 2007, and has won general support from the public, the Environment Bureau and the Electrical & Mechanical Services Department who have now commenced preparing the legislative proposal known as the Buildings Energy Efficiency Bill. This bill was introduced to the Legislative Council in December 2009 and is currently being vetted.

Further EMSD work has focused on the development of a district cooling system (DCS) at the Kai Tak Development to supply chilled water to buildings for energy-efficient air-conditioning purpose. This is due for completion in 2013 and is currently at the ‘tender stage’ of development according to a May 2010 Legislative Council Discussion Paper.⁴² Due to the efficient nature of the air conditioning system, implementation of DCS will achieve an annual saving in electricity consumption by 85 million kilowatt hours, which is 35 percent less than conventional air-cooled air-conditioning systems.⁴³

Bonus GFA incentives

If these regulations are to be the ‘stick’ to the green building industry in Hong Kong, a number of initiatives have provided the ‘carrots’. One example is the Hong Kong government allowing certain green features to be exempt from the gross floor area (GFA) calculation of developments if they fulfil specified criteria for exemption. Because these features are not included in the total development area, they are in many ways ‘free space’ that can be marketed to increase the property price.

Examples of the ‘green’ features include balconies, wider corridors and lift lobbies, communal sky gardens, communal podium gardens, acoustic fins, sunshades and reflectors, non-structural prefabricated external walls, utility platforms and mail delivery rooms with mailboxes.⁴⁴ However, not all these ‘green’ features are environmentally friendly. Take, for example communal sky gardens, which normally require water recycling and expensive maintenance and can be a drain on resources. It seems that, without further expert guidance, green regulation may end up benefitting developers’ more than the environment in Hong Kong.

The bonus GFA scheme is popular in both Hong Kong and Singapore, but in Singapore, the bonus GFA also requires the building be certified at one of the highest Green Mark ratings. This ensures that these features are incorporated into the design of a truly sustainable building. In Hong Kong, the bonus GFA is given whether or not the building is sustainably certified.



Financial incentives

The Hong Kong government's 2009-2010 budget demonstrated an increased commitment to Green Buildings, allocating about US\$58 million to carry out works in government buildings over the next two years such as energy efficient lighting systems, air-conditioning, elevator and escalator systems.⁴⁵ This approach to improving the government's own building stock is a step forward and is a method which has worked in countries such as Australia, where it was the government's position as the largest tenant in the country that enabled it to lead demand for green building from an powerful occupant perspective.

The Hong Kong government is taking further steps to engage the private sector by providing access funding of \$450 million for private building owners to conduct energy-cum-carbon audits and energy efficiency improvement projects. This is expected to subsidise 1,600 projects with over 800 applications currently received.⁴⁶ This mirrors a scheme in Singapore where the National Environment Agency (NEA) provides a co-funding scheme known as the Energy Efficiency Improvement Assistance Scheme (EASE) to help companies in the manufacturing and building sectors engage accredited Energy Services Companies (ESCOs) to conduct energy audits and recommend energy saving measures. Funding is provided up to 50 percent of the qualifying costs of engaging an ESCO and capped at around US\$150,000 (S\$200,000) for a single facility or building over a five-year period.⁴⁷

The Singapore government provides additional financial incentives for both existing and new building that the Hong Kong government may want to consider in the future.

Figure 19: Financial incentives for sustainable buildings in Singapore

	Singapore
Financial incentives in place	Green Mark Incentive Scheme for Existing Buildings (GMIS-EB) encourages private building owners of existing buildings to undertake improvements in energy efficiency included US\$77 million financial backing. The scheme provides co-funding cash incentives of up to 35 percent of the costs for energy efficiency improvements. These are capped at US\$1.2 million. Additionally there is a Green Mark Incentive Scheme for New Buildings (GMIS-NB) which provides cash incentives to developers, building owners, project architects and M&E engineers, who achieve at least a BCA Green Mark Gold rating in the design and construction of new buildings. The total funding is US\$15 million.⁴⁸

Source: Singapore Government Web Sites

The Hong Kong Green Building Council

The Hong Kong Green Building Council (HKGBC) was established in November 2009 as an industry-wide platform to drive the market transformation for sustainable buildings in Hong Kong. HKGBC is a non-profit and member-based organisation with charitable status.

One of HKGBC's core initiatives – in addition to its advocacy, education, research and demonstration – is the benchmarking and certification of buildings using the BEAM Plus green building rating system. BEAM Plus was launched in April 2010 as the latest evolution of the BEAM best practice standards first introduced in 1996.

HKGBC's achievements in its first year include the integration of BEAM Plus into the HKSAR Governments' Professional Practice Notes for the wholesale conversion of industrial buildings and, from April 2011, the Government's adoption of BEAM Plus as a prerequisite for measures to incentivise green features in Hong Kong's new buildings.

HKGBC was founded by the collaboration of four organisations –

The *Construction Industry Council (CIC)* which drives sustainable construction among various sections of the construction industry.

The *Business Environment Council (BEC)* which unites business sector users and supporters of sustainable buildings.

The *BEAM Society (BEAM)* which helps measure, improve and label green buildings.

The *Professional Green Building Council (PGBC)* which promotes sustainable planning, design construction, management maintenance of the built environment.

The consolidation of these organisations has been publicly welcomed by the Hong Kong government and it is hoped they will now collectively have more impact on the development of a sustainable built environment than when they operated independently.

The improved focus and impact of the new organisation was evidenced at the inaugural Green Building Council ceremony cum conference, where there were more than 500 attendees and key note speakers came from the highest level of government including Mrs. Carrie Lam, the Secretary for Development and Mr. John Tsang, the Financial Secretary.

HKGBC's membership is also rapidly expanding. HKGBC concluded the 2010 Green Building Award in November 2010, with over 50 applications from across Hong Kong and Asia Pacific, and has also attracted more than 600 practitioners to become HKGBC accredited *BEAM Professionals* in the last nine months.

Comments from Kevin Edmunds, Executive Director HKGBC, identify the importance of collaboration in effectively driving forward the progress of sustainable building in Hong Kong.

"Realising more and more sustainable and low-carbon built environment extends far beyond just building design, construction and management. All parts of the property, real estate and construction sectors need to align their expertise and efforts – and they need to do this fast. This research provides much needed insight into the potential for responsible investment to help stimulate a more holistic transformation of the marketplace."

- Kevin Edmunds, Executive Director, HKGBC

Air quality and Air Conditioning

Skyscrapers are a unique part of Hong Kong's identity. While not necessarily an environmental problem, tall and inefficient buildings packed together can induce 'urban heat islands', a phenomenon whereby materials such as concrete and asphalt absorb heat during the day and release it at night. An additional 'canyon



effect' can reduce air circulation in many neighbourhoods, creating dull stale corridors of air.

The urban heat island and this canyon effect are thought to contribute to Hong Kong's average temperature rising by as much as 0.6 degrees Celsius per decade – more than three times the world average. Research from academic institutions has shown that for a one degree Celsius increase in ambient temperature in Hong Kong, the annual total electricity consumption increases by 4.5 percent.⁴⁹ So called 'hot nights', when the mercury does not dip below 28 degrees, are a new phenomenon in the city - there were no such occurrences in the early 1950s, according to the Hong Kong Observatory. Now there are more than 20 per year.⁵⁰

Changes in temperature have led to changes in behaviour and in just a few decades, Hong Kong has become almost totally dependent on air conditioning, which accounts for 60 percent of the city's power consumption in summer. The use of air conditioning, whilst keeping interiors at a pleasant temperature, contributes more to the heat island effect. There are inefficiencies in positioning and design and the overall effect of hundreds of individual units on a building can be an eyesore. According to a study released in August 2010, more than half the city's residents switch on their air conditioners because their neighbours' air-con units blow hot air noisily into their flats if they were to have the windows open for natural airflow.⁵¹

Figure 20: Barnacles of air conditioning units in Hong Kong



Source: Responsible Research, 2010

Expectations also play a role in increased air conditioning use, with a generation of residents now having growing up expecting to be permanently cool at school, in shops, in between shops and in public transport.

Many office workers wear sweaters and shawls in the office even in the summer as the air-con makes the indoor temperature too chilly. NGOs are helping to raise awareness of this situation. 'Green Sense', a Hong Kong based NGO, organised a recent event in which as many as 50,000 out of nearly three million homes in Hong Kong switched off their air conditioning for one night in September.⁵² Perhaps the tendency to insist on conditioned air indoors is also due to the fact that the air becomes filtered. Air quality in Hong Kong is still a major concern to residents.

The Clean Air Network and Civic Exchange, a public policy group, say that its air is three times more polluted than New York's and more than twice as bad as London's. And based on World Health Organization standards Hong Kong's air is healthy only 41 days a year.

Figure 21: Smog in Hong Kong



Source: NY Times, April 2010

Private developers are looking at the commercial business case for planning for improved ventilation. For example, Hysan's new LEED Platinum Hennessy development claims that its structural design containing a ventilation channel importantly improves air circulation around its building in Causeway Bay. Developers may also be motivated to improve ventilation before the government begins moves towards legislation.

The government has developed an environmental assessment tool, the Comprehensive Environmental Performance Assessment Scheme (CEPAS), devised to provide a measure to evaluate the environmental performance for all building types in Hong Kong. Stakeholders and organisations however are urged to voluntarily adopt the guidelines, as CEPAS legislation has not yet been drafted.

The government has also not legislated on air-conditioning usage. In its own offices, it promotes the use of energy-efficient and water-based air conditioning systems and maintains a temperature of no less than 25.5 degrees Celsius. However, it only encourages rather than requires private building owners to do the same. Other governments in Asia have responded more aggressively to increasing air conditioning usage. In Taipei, the municipal government passed a law prohibiting businesses from setting their air conditioners to less than 26 degrees Celsius and those who do not comply risk being fined up to US\$1,600.⁵³

Development of park lands

A second environmental issue that is attracting increasing attention is continued development around Hong Kong's parks, which cover some 40 percent of the land in the SAR.⁵⁴ These country parks have historically conserved bio diversity and provided recreational facilities to members of the public. However, in recent years a range of prime sites next to and within park lands have been bought by private developers.

These prime sites were not originally included in the officially designated park land because villagers or farmers owned them.⁵⁵ Since then, they have become attractive to affluent consumers. According to Paul Zimmerman, CEO of Designing Hong Kong, "with the huge increases in wealth of mainland China and its entrepreneurs, remote areas have become accessible. The latest 'must have' toys of the affluent - powerboats and helicopters - are turning Hong Kong's country parks into the next neighbourhoods for the ultra-rich."⁵⁶ Because these sites were never designated as park land, they have minimal zoning protection. This has brought calls for the government to plug the planning loopholes immediately, including imposing temporary zoning on all the sites simultaneously.

Case Study: Sai Wan development by billionaire

A high profile case in July 2010 concerned excavation at a site of land at Sai Wan, a private plot surrounded by a remote part of Sai Kung East National Park. The abandoned village, of 10,000 square metres, is only accessible by boat and foot through national park land. Simon Lo Lin-shing the Mongolia Energy Chairman purchased the land for US\$2 million.



Figure 22: Tung Lo Wan Beach in Sai Wan



Source: HK Natural History Society

A spokeswoman said the site would become a landscaped garden and organic farm for Lo's private enjoyment. However, the key concern is that statutory zoning does not cover the work site. As a result, the development is not subject to planning controls and there is no need to carry out environmental impact assessments.⁵⁷

Three excavators moved in over the beach in June 2010, breaking the law, as this beach is part of Sai Kung East Country Park and permission for access to the park was not obtained in advance. The large-scale excavation, including the removal of surface vegetation, did not appear break any regulations but the lack of applications submitted to the District Lands Office for the proposed development has provoked concern.

A strong public outcry through petitions, protests, Facebook groups WWF coverage and press articles has halted the excavation, although the stoppage only appears to be temporary and work is likely to recommence if the protests diminish.

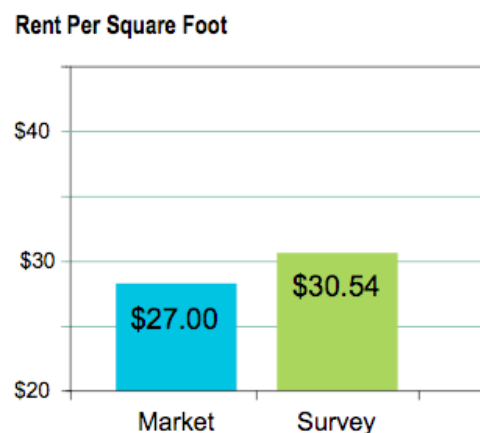
The lack of interest in this issue from the government has brought further attention to the land acquisition process and the perceived weakness of the government in implementing necessary legislation to control the development of Hong Kong's remaining countryside as well as urban land plots.

FINANCING REAL ESTATE IMPROVEMENTS

Studies in the United States from 2006 find that on average there is no significant difference in construction costs for green buildings compared to non-green buildings.⁵⁸ However, capital costs can vary greatly depending on the type of project and technology solutions involved. Research shows that construction cost premia in Hong Kong differ for green developments depending on whether it is residential or commercial and also on the level of certification achieved.

These cost would not be a problem if sustainable buildings were guaranteed a 'green premium' to help investors recoup their investment, for example, through enhanced rental income. When over 3,000 tenants in the United States were asked in a study whether they would pay more for 'sustainable' real estate, 82 percent said they would not. However, the same study shows that those participants who were in green buildings had, in fact, paid a green premium for their space;⁵⁹ the average rent per square foot of those tenants in green buildings who were surveyed was US\$3.54 higher than the market rate.

Figure 23: Rental comparison of green tenants to market level



Source: CBRE Dollars and Sense Report

Retrofits of existing buildings, an exciting area for improving building efficiencies, have not yet taken off in Hong Kong. So far it has made more economic sense for owners and developers to allocate resources to their core real estate businesses than to invest in comprehensive green building upgrades, related technology or to train or hire in dedicated professional management in this area. The capital cost of an energy efficiency retrofit for a typical commercial building is US\$1.3 million or more.⁶⁰ No obvious financial incentives exist to drive private owners to make the capital investment to their properties.

That said, some Hong Kong companies including Pamfleet and MTR are engaging in retrofit activities as described on the following page.



Case Study: MTR & Clinton Climate Initiative

In 2009, MTR participated in the Clinton Climate Initiative (CCI) Energy Efficiency Building Retrofit Program. CCI introduced their Energy Performance Contracting (EPC) process to MTR. The CCI EPC process, seen as a global best practice strategy for retrofitting buildings, energy service companies guarantee the energy savings over a defined period of time.



CCI is working with MTR to undertake the first ever train station retrofit. The contract award was announced following the C40 Conference in Hong Kong on 5 and 6 November 2010. As the selected rail line is completed, the first cycle of the carbon footprint will be established and, subsequently, provide the model for accurate measurement from which future de-carbonization opportunities can be identified and translated to other projects. MTR is concurrently designing the West Kowloon Terminus of the Express Rail Link, which will serve as the most southern connection point to mainland China's fast-train network, to achieve BEAM Silver certification. This is the first time Hong Kong BEAM has applied its accreditation to a railway terminus.⁶¹

WATER ISSUES

Water scarcity will pose a number of challenges for the property sector in Hong Kong. In discussions of the environmental impact of buildings energy efficiencies tend to receive the most attention due to their strong links to operational costs. Water, however, is also a critical resource and there are moves afoot to increase pricing to persuade users to treat it more carefully.

Real estate developers can minimize their water impact through their choice of construction companies. Sustainably managed construction firms can increase the use of recycling in water intensive operations, such as piling and washing of construction machines, as well as closely managing their use of higher quality water for mixing concrete and other materials.

Developers can also minimize water use from operations through choices of architecture, design and internal fixtures. Technologies implemented included installation of infrared sensors and low flow fixtures to reduce duration and rate of water flow in bathrooms and kitchens as well as rain harvesting system to collect grey water that can be used for non potable uses.

Few Hong Kong developers report on water saving measures across their portfolio. Some report implementing BEAM or LEED certification scheme implemented. Leading developers also report on wastewater discharged from their properties. Water should ultimately be treated as part of a company's overall management and included in the annual report or sustainability report, as demonstrated by Swire Properties:

"In 2009, we examined water reuse in our sprinkler and air conditioning systems. At Taikoo Place, we saved 58,996 cubic metres of water through collection and re-use of air conditioning condensate."

- Swire Properties 2009 Sustainability Report

Swire Properties' initiatives across its portfolio of properties now extend into mainland China, where the company notes "water shortages are widespread". The savings appear to be significant and they state that it is applying a range of water saving measures in at Office Tower One at Taikoo Hui in Guangzhou, estimating that various water saving measures would result in a 45 percent reduction in water use."⁶²

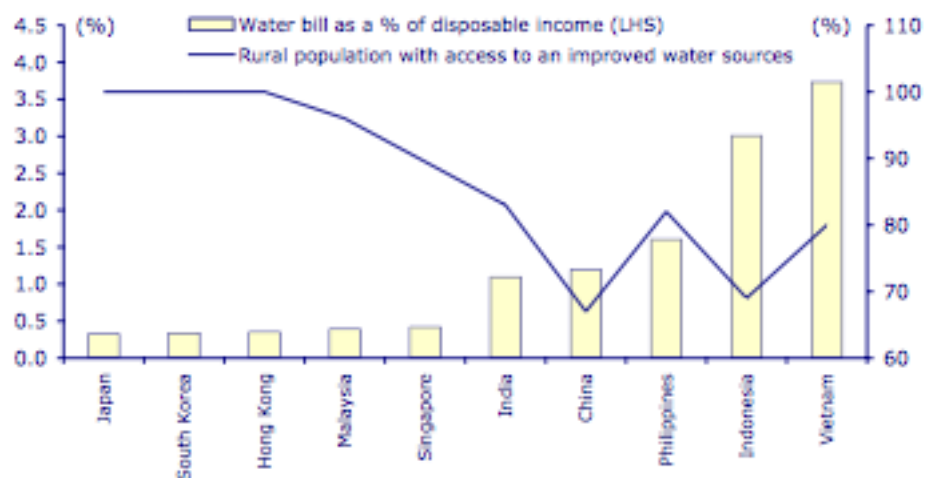
The importance of water data

As with energy, there is a strong focus on the use of 'smart metering' to monitor consumption.⁶³ For owner-occupiers, these investments can be justified due to associated cost savings. However, water issues do not yet really affect tenants. Cheap water is always available in Hong Kong - and the price of water will not drive renters to demand water efficient features in their homes or offices.

Thirsty Asia, a report by CLSA and Civic Exchange, highlights just how affordable water is for residents of Hong Kong. The water bill is such a small component of disposable income that it will not influence behaviour in the home or drive water-efficient choices by developers.



Figure 24: Water bill as a % of disposable income in Hong Kong



Source: World Bank, ADB, CLSA Asia-Pacific Markets

While price is not able to drive change, ad hoc government initiatives are attempting to push the agenda on water efficiency.

Case Study: Water efficiency labeling scheme from water supplies department



In September 2009, the Hong Kong government introduced a water conservation initiative for all manufacturers, importers and other related parties to apply for voluntary registration for water saving devices with the Water Supplies Department. This voluntary Water Efficiency Labelling Scheme (WELS) can inform consumers of the level of water consumption and efficiency of plumbing fixtures and water-consuming appliances. It can also help consumers select fixtures and appliances based on water conservation. The scheme will be implemented in phases for different plumbing fixtures and water-consuming appliances, beginning with bathroom showers.⁶⁴

SUSTAINABLE CONSTRUCTION

In their role as contractors, construction companies may appear to have little ability to affect the environmental impact of the real estate industry. However, some construction companies are already known for ensuring the efficient use of resources and delivering optimal solutions. For example, many flagship sustainable buildings used Gammon Construction as their lead contractor, including:

York House (Hysan) – the first BEAM Platinum Certified Building

Hennessy Centre (Hysan) – the first Pre Certified LEED Platinum Building

One Island East (Swire) – a BEAM Platinum Certified Building



Case Study: Building Information Modeling (BIM)

Technology such as Building Information Modelling (BIM) has enabled Gammon to ensure a development's safe and efficient construction. The techniques used include computer models that simulate a virtual 3-D platform for architects and engineers to refine designs, and allow the construction team to rehearse construction methods and the project management team to preview the construction programme before works begin. This has helped achieve a high standard of design and quality, well-coordinated construction methodology and safe construction environments.

The use of BIM also facilitates sustainable property and building facilities management following completion of the project. Modeling information can help to manage the building maintenance and provide controls for later alterations to the building.⁶⁵

Although expertise in sustainable construction techniques is a positive factor, price is still the leading determinant of the construction company appointed as the lead contractor on site. The Construction Council of Hong Kong has expressed similar sentiments:



Case Study: Construction Council of Hong Kong

The Construction Council of Hong Kong is a business association representing the interests of a range of construction companies. In an interview, the Council stated that, although awareness of environmental issues is growing in the construction industry, project costs remains the primary decision maker in selection of contractor. Although developers may request construction companies to source more environmentally friendly materials it is again cost which becomes the key factor.

Defining the carbon content of buildings is an ongoing challenge, as it varies considerably depending on the composition of the materials. The Carbon Trust is collecting data on this and the data will eventually be used to better inform material choice and enable more environmentally sound sourcing decisions.



ISSUES FOR
RESPONSIBLE
INVESTORS

SOCIAL

CONSUMERS

The affordability of property and the lack of transparency in property pricing are both of major concern for Hong Kong residents. There have been a number of incremental and reactive policy changes that have attempted to improve the situation for property buyers. We believe more proactive government policies will continue to drive improvements for real estate consumers.

Affordability

Hong Kong developers pass on the exorbitant land prices required to bid for land plots at government auctions to a consumer base that is hungry to get on the property ladder.

Due to high demand, the issue of affordability is impacting more segments of Hong Kong's population, as even smaller homes and traditionally more affordable areas are now being priced out of reach. A 370 square foot apartment in the city can cost US\$1 million. For those with a more limited budget, US\$425,000 could purchase a similar sized space in the New Territories, which is 45 minutes by train from central Hong Kong. Analyst reports suggest that mortgage payments on these flats at current mortgage rates would take approximately 80 percent of median income even after putting down the required 30 percent deposit.⁶⁶

The Hong Kong government has attempted to dampen rapidly escalating property prices but the measures do not solve the fundamental need to increase the supply of housing units for average Hong Kong wage earners. Even if the government increases the supply of residential sites, there is no guarantee that the small number of powerful developers will build the kind of units that most Hong Kong residents can afford. With increasing demand from cash-rich buyers from mainland China, developers instead prefer to build high-end and higher-yield housing for this consumer base. Newspaper reports of luxury properties sold to mainland Chinese at staggering prices are now commonplace and, according to the Wall Street Journal, as much as 40 percent of new-home sales buyers in Hong Kong now come from mainland China.⁶⁷

Chinese government policies can greatly influence property-buying behaviour by mainland Chinese consumers. For example, a US\$585 billion stimulus package introduced in November 2008 to revive the Chinese housing market prompted a huge surge of mainland Chinese buying in Hong Kong. Changes in China's interest rates to curb property price inflation there can also create financial instability. This was last seen in October 2010 when authorities increased the benchmark rate by 25 basis points. Investors in Hong Kong's property market must therefore be keenly sensitive to China's fiscal and monetary policies when they consider investing in local real estate.

In an attempt to stem the flow of inbound investment from China, the Hong Kong government changed a popular immigration scheme in October 2010. The scheme had been used by mainland Chinese who were non-Hong Kong residents to obtain residency by investing US\$837,600 in local assets. Given the potential upside from investment in the property sector in Hong Kong, 42 percent of the capital brought in found its way into residential real estate investments, rather than long term fixed assets and to support local businesses. The policy has now been changed so that home purchases are excluded from the plan.⁶⁸

Public housing in Hong Kong

As of March 2010, about 2.1 million people, or 30 percent of the population, live in public rental housing (PRH) estates. As discussed in an article by the Chartered Institute of Housing, public housing in Hong Kong has gone through a number of transitional stages during the past fifty years.⁶⁹ From 1950 to 1960, public housing was only provided as emergency housing or to shelter to resettle fire victims and residents of clearance. As Hong Kong continued to develop,



the housing policy changed to provide permanent housing for citizens in the lowest income group. As citizens aspired to improve their living environment increased, the government policy in public housing changed again to provide 'Quality Housing'. New public housing estates were built and facilities such as shopping centres were included so as to provide improved quality of life.⁷⁰

In the past decade the government has become less inclined to provide public housing and instead has increased the use of fiscal subsidies to those who can afford to acquire housing in the private market or to encourage owners to buy their own public housing flat.

Since 1978, the government has implemented several subsidised home ownership schemes such as this 'rent-to-buy' example. Under this scheme, more than 460,500 subsidised flats were by end of June 2010 sold to households of low- and middle-income groups.

Many of the schemes implemented, however, have now been cancelled, including the Home Ownership Scheme (HOS), the Private Sector Participation Scheme (PSPS) and the Tenants Purchase Scheme (TPS). In addition to other housing schemes implemented by the Hong Kong Housing Society (HKHS). Public housing now really only serves as an option of last resort for the lowest income group. However, with house prices becoming increasingly unaffordable, a growing number of Hong Kong residents are finding themselves joining the waitlist for public rental housing. At the end of June 2010, there were about 133,800 applications on the waiting list for the HKHA's public rental housing with the average waiting time for PRH for general applicants being about two years.⁷¹ The scheme is very attractive due to the fact that the rents are set based on income levels rather than on market prices.

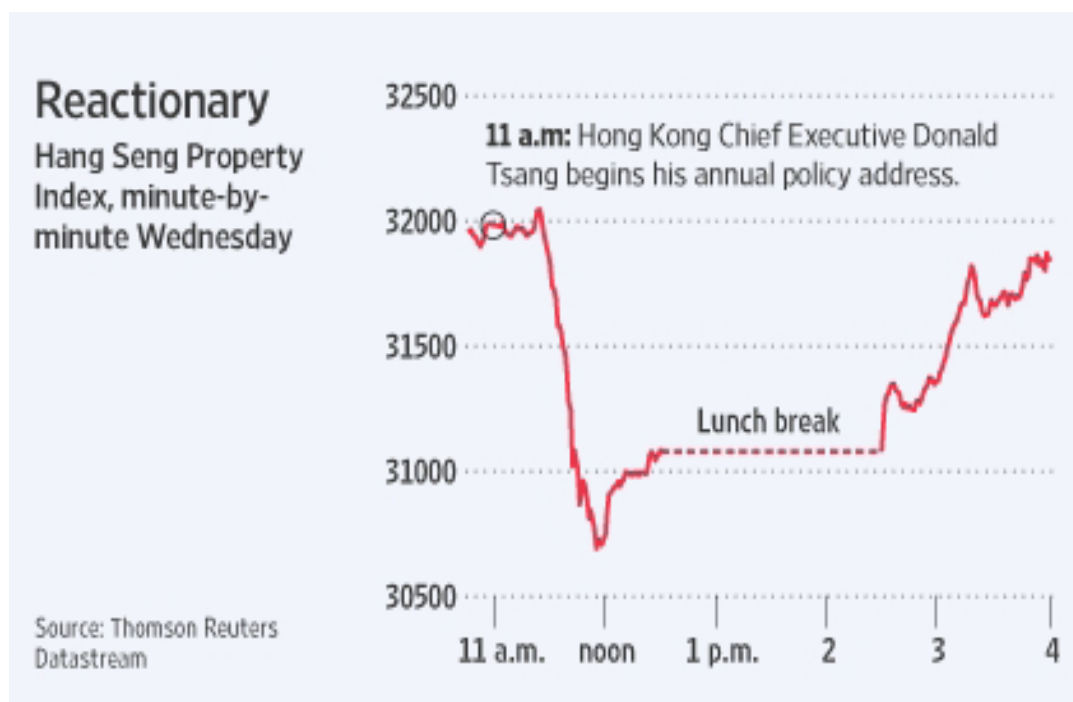
Hong Kong Chief Executive Donald Tsang appears to recognise the growing concerns about housing affordability. During his address to the Legislative Council in October 2010, he stated that the government would implement measures to increase housing supply and "build around 5,000 rent-to-buy apartments for middle-class residents over the next few years."⁷²

Under this rent-to-buy program, the government will let first-time property buyers rent for as long as five years at a fixed amount. During the period, tenants will be eligible to use half of the total rent paid toward a down payment to buy a home. The first project under the plan will provide about 1,000 units in the Tsing Yi district and should be completed by 2014. However, there are strong critics of the rent-to-buy schemes, as tenants who are unable to buy after the five-year period are forced to move out.

Mr. Tsang acknowledged "housing is currently the greatest concern of our people"⁷³ and agreed that private housing supply has been relatively low in the past few years. Although Hong Kong will continue to rely on the private sector to drive the market for houses, the government appears to acknowledge its responsibility to ensure that the market delivers properties that average residents of Hong Kong can afford to buy.

Whilst the Hang Seng Property Index appeared to respond negatively to this announcement of increased supply of low cost houses, it has not appeared to have a long-term impact on investor sentiment.

Figure 25: Hang Seng Property Index Reaction to Announcement of Increase housing supply



Source: Thomson Reuters from Wall Street Journal, 2010⁷⁴

Subsidised housing in China

In China, the government is implementing a subsidised housing system.

In mid-2006, Premier Wen said that the establishment of a public housing system that provides adequate housing to the low-middle income group in mainland China was a priority of the central government.⁷⁵ In 2010, 5.8 million housing units, including three million public rentals and economic housing and 2.8 million 'squatter resettlement housing', were due for construction under the government's plan.

The private sector's participation in the development of low-end housing has been minimal because of lower profitability and an inability to differentiate projects against competitors.

However, a number of leading Chinese developers now appear keen to concentrate on these new, large-scale programmes at the lower end of the income spectrum, both because these projects not only develop strong government relations, and due to the sheer scale of the potential market.

Case Study: Chinese developers look to subsidized housing as a business opportunity



Reports from the South China Morning Post in July 2010 highlight that the gross profit margin for a subsidized housing project by Greentown China in Shenyang was 22 percent lower than the gross profit margin of the company for the previous financial year. Interestingly, however the deal was said to be “good for government relations and brand image”.⁷⁶ Indeed, eight percent of the company’s total construction area is now devoted to low-priced apartments for low-income families.

The Greentown project, estimated at US\$150 million, will see 30 percent of the funds go to acquire land from the city at a price discounted by 50 percent from the average land prices. Strong political relations are already developing and the city government has awarded Greentown with contracts for construction projects for the Twelfth National Games to be hosted in the city in 2013. These projects are not government-subsidized but after the games, Greentown can sell the apartments and facilities.⁷⁷

Developers encourage irresponsible lending

As a result of the recent financial crisis, bank lending practices and down payment ratios have become stricter. The Hong Kong Monetary Authority (HKMA) also introduced measures that reduced the newly approved mortgage loans. However, the HKMA has no authority over developers’ lending practices to their customers.⁷⁸

Hong Kong developers have been pumping liquidity into the property market by offering buyers secondary financing. A statement from Cheung Kong on 21 September 2010 showed that it provided an additional ten percent financing to buyers of the Oceanaire property development project in Ma On Shan, countering market-cooling efforts the government has attempted. In fact, buyers can borrow as much as ten percent of a property’s value from a Cheung Kong subsidiary, subject to approval by their primary mortgage lender. An added speculative incentive is that the developer will also reduce the lending rate by 3 percent below the prime lending rate for the first year of the mortgage, however, this will revert to the prime rate (currently between 5 per cent and 5.25 percent) after the first 12 months.

Centaline, a property agency, commented that this is considered standard practice by some developers while others are waiting to see the government and public’s response before considering their own moves.⁷⁹ According to the South China Morning Post, Bonnie Ngan, a spokeswoman for Henderson Land Development Co., said that the company has been offering buyers secondary mortgages on almost all its projects.⁸⁰ There are several concerns with this unregulated market for property lending, not least of which is that the end buyers may be extending themselves unnecessarily. There is no regulation on interest rates allowable or collection methods used by the property companies and their agents should a tenant be unable to make repayments.

Transparency

While consumers there are no laws prohibiting developers from trying to blame developers for withholding apartments from the market until prices rise, to maximise the returns for a given project. More concerning, however, is that developers seem to be systematically reducing the transparency of transactions and making information flow deliberately obtuse to create confusion and uncertainty. This was exemplified by Henderson Land’s 39 Conduit Road development.

Case Study: Floor numbering at 39 Conduit Road

Figure 26: 39 Conduit Road



Source: New York Times⁸¹

39 Conduit Road became the location of the world's most expensive apartment in October 2009 when a 6,158 square foot flat sold for US\$57 million.⁸² This unit, which was marketed as being located on the 68th floor of the building, was actually on the 44th floor. In Hong Kong, floors containing in the number four are often renamed for being inauspicious (the number four sounds like a Chinese word for death). 39 Conduit Road, the top floor of the 46-story building was called the '88th floor' (the number eight being considered lucky). Although some see this as a harmless marketing gimmick aimed at the upper classes of Hong Kong society, others see it as an example of developers causing confusion in the marketplace.

While Henderson Land was not acting in isolation, the negative press generated from the incident provoked response from the government and at the Legislative Council. In April 2010, the Financial Secretary, John Tsang, proposed "nine additional measures" on selling uncompleted first-hand private residential properties. On the same day, the Secretary for Transport and Housing, Eva Cheng, announced twelve "enhancement measures" on regulating show flats.⁸³

In June 2010, the Real Estate Developers Association (REDA), the industry association that includes all leading developers as members, issued a circular of new Guidelines on Sale of Uncompleted Residential Properties that incorporated the Nine Additional Measures on sale of *uncompleted* residential properties.⁸⁴ Many of these measures focus on improving the quality and accuracy of information that buyers receive, since previous documentation often reportedly misrepresented the size and details of apartments (which are purchased before construction is finished).

Case Study: The Real Estate Developers Association moves to self-regulate the Hong Kong property market



- 1.** Members of REDA should duly observe REDA's guidelines in selling uncompleted first-hand private residential properties.
- 2.** The existing "five-day disclosure rule" on transactions should include transactions involving members of the Board of the developer and their immediate family members.
- 3.** There are 12 new requirements regarding the design and purpose of show flats. These include, that the dimensions of show flats be identical to the building plan and that ceilings are included. Wherever practical, videos and pictures should be allowed to be taken by prospective buyers.⁸⁵
- 4.** Certain minimum numbers of units are to be included in the first price list in each batch
- 5.** Sales brochures should be made public seven days prior to commencement of sale and need to include certain additional requirements.
- 6.** The price lists should be made public at least three calendar days in advance of the commencement of sale. This applies to all price lists (not just the first price list).
- 7.** Promotional materials of the development should to include additional information, including the district where the development is situated with reference to the Outline Zoning Plan(s) and the address of the development as confirmed with the Rating and Valuation Department.
- 8.** Members should put all sales brochures and price lists on their websites at the same time that they are available on site.
- 9.** When selling completed first-hand residential properties, members should provide an on-site unit at the development for the public to visit.

Additional solutions have been proposed to improve transparency for buyers and create more certainty in the marketplace. One solution is for there to be a regulator to oversee the functioning of the market and protect the interests of the buyers. This may well be justified given the high levels of investment in real estate transactions. However, some feel that the transaction process could be improved more easily by introducing a statutory cooling-off period for new apartment sales; however, this has not been discussed at a governmental level as yet.

Other steps that would improve the transparency of the marketplace include an online database to provide consumers with information of verified transactions in the marketplace. This would provide buyers with an up-to-date view of sales transactions and accurate market levels.

Real estate analysts are beginning to examine this new move towards consumer protection and review impending policy changes as potential risks in their market evaluations. A July 2010 Goldman Sachs report on the Hong Kong marketplace for example stated that the share price performances of the major developers had been hit "largely due to concern about the near-term outlook for residential prices after a set of new home sales rules implemented by the Government."⁸⁶

EMPLOYEES

Safety through the supply chain

Almost eight percent of the total workforce of Hong Kong works in the construction industry, which is notoriously dangerous.⁸⁷

Construction work is dangerous. The International Labour Organisation (ILO) estimates at least 60,000 fatal accidents a year on construction sites around the world, which is one in six of all fatal work-related accidents.⁸⁸ The global trade union federation puts the figure much higher at 108,000, with construction responsible for 30 percent of all work-related accidents.⁸⁹ Many more workers suffer from occupational diseases arising from exposure to dangerous substances such as dust, chemicals and asbestos. While securing a job in construction offers a potential route out of poverty for many of the world's poorest, the subsequent inability to work due to injury or ill-health can drive them and their families back into destitution.

Developers have a responsibility to ensure that their contractors and sub-contractors use safe working practises. Strong supply chain management can ensure that developers are not exposed to the negative financial and reputational impact of worker injuries and deaths on their development site. Research has shown that the causes of on-site accidents and ill-health are well known and deaths and injuries that occur in construction are foreseeable and preventable.⁹⁰

Safety monitoring in Hong Kong

Hong Kong's Labour Department is the principal government agency responsible for the execution and coordination of major labour administration functions. The department has four key areas:

1. Labour Relations
2. Safety and Health at Work
3. Employment Services
4. Employee Rights and Benefits

Safety records are improving: data from the Labour Department highlights that the number of industrial accidents in the construction industry decreased from 14,078 in 1999 to 3,033 in 2008, a drop of 78.5 percent, while the accident rate per thousand workers also decreased from 198.4 to 61.4, or 69.1 percent.⁹¹

According to government figures, there were 36 fatalities in the construction industry in 2008, or 13 deaths for every 100,000 workers. This is much higher than in Singapore, where the workplace fatality rate stood at 2.9 per 100,000 in 2009.⁹²

While a range of safety measures exist in the Hong Kong construction industry, and policies are often enforced at the work site.

The Labour Department conducts regular enforcement inspections to various workplaces to ensure that all statutory requirements of safety legislation are upheld. The department conducted 13 special 'blitz operations' targeting various high-risk work activities, including construction safety. Some of these were conducted at night and during holidays to detect and clamp down on offending contractors. During 13 operations, a total of 32,117 workplaces were inspected, 475 prosecutions initiated, 425 improvement notices and 59 suspension notices issued.⁹³

Worksite issues also arise from workers' complaints. A Central Inspection Team conducted an independent investigation of workers' complaints, in 2008 including reports of unsafe conditions or malpractices. The team handled 115 complaints and initiated ten prosecutions arising from investigation of these cases.



The Labour Department has started to report on unsafe repair, maintenance, minor alteration and addition (RMAA) works with the Hong Kong Association of Property Management Companies and the Housing Department to bring a more coordinated approach to dealing with worksite complaints. In 2007, the Census and Statistics Department estimated that the RMAA sector contributed to 53 percent of the total construction market in Hong Kong.

The percentage of RMAA accidents in all construction accidents in Hong Kong increased from 17.9 percent in 1998 to 50.1 percent in 2007.

Penalties

One of the problems of enforcement is that fines for accidents or even deaths of employees on construction sites are small. A July 2010 press release from the government stated that Method Building and Engineering Works Limited was fined only US\$5,160 after a worker fell to his death while cleaning a newly constructed fuel tank on a construction site in Tuen Mun. This is significantly less than the maximum fine of US\$64,500 that could have been set.

Amendments were passed by the Legislative Council in June 2010 to increase the amounts awarded for five items under the Employees' Compensation Ordinance. The revised levels of compensation are applicable to work accidents that happen on or after 1 August 2010. However, the increases are unlikely to impact work practices on construction sites.⁹⁴

Figure 27: Employees' compensation totals for work accidents as stated in press releases

	Original Level (\$)	Revised Level (\$)
1. Ceiling of monthly earnings for calculating compensation for death and permanent total incapacity	21,000	21,500
2. Minimum compensation for death	303,000	310,000
3. Minimum compensation for permanent total incapacity	344,000	352,000
4. Compensation for attention	412,000	422,000
5. Minimum amount of surcharge on late payment of compensation		
* initial surcharge	490	500
* further surcharge	970	1,000

Source: Hong Kong Government 2009⁹⁵

Unsurprisingly, serious accidents at high profile building sites draw the most press attention and are accompanied by the largest financial payouts. In September 2009, six workers died at the city's tallest structure, the International Commerce Centre (ICC). Sun Hung Kai, the building's developer, said it planned to give each of the families of the victims US\$129,000, which is twice the maximum compensation, but minor compared to project costs or even the cost of delayed work due to an accident investigation.

Reputational damage, however, can be significant. The linkage to dangerous buildings and practices, as well as superstition for some Asian tenants, could mean a subsequent loss of tenants, which would be a far higher price for developers to pay.

To avoid these risks, developers should actively seek to work with construction firms that take a active role in improving their safety systems. For example, Gammon Construction uses its BIM software to visualise construction approaches and indentify and mitigate safety issues before they occur.

Supply chain management to reduce risk

Currently, developers often focus on what is considered 'normal' local business practices instead of scrutinizing their supplier base. This is highlighted by the fact that only 65 percent of our universe of companies set quantifiable standards for their suppliers and business partners, and only 40 percent trained their suppliers to help them.

In order to proactively manage its supply chain risks, companies should engage with suppliers, before contracts are awarded in order to agree a code of conduct for practises to be followed. This code of conduct should include a basic agreement that legal and regulatory requirements will be met, and can also include detail on the management of environmental issues, such as waste recycling, and employment practises. Health and safety policies would also be considered. Given the complexity of the value chain, a vital facet of this agreement would be that the primary suppliers have their own code of conduct and therefore that these requirements are cascaded down the supply chain to even the smallest of service providers. Leading developers publish these codes of conducts on their web sites and are improving the awareness of the importance of supply chain management in the industry.

Labour relations

In Hong Kong, employer and employee relations are largely premised on freely negotiated terms and conditions of employment entered into between two parties. Employers and employees are both free to form trade unions and participate in union activities. The Labour Department's 2008 annual report mentions 796 registered trade unions in Hong Kong.

Unions strive to improve the working lives of construction labourers in Hong Kong and support infrastructure projects that create jobs for their members. For instance, in January 2010, the Hong Kong Building Construction Workers General Union demonstrated outside the Legislative Council to support a US\$8.6 billion express train link to mainland China.⁹⁶ Although Hong Kong laws permit independent and democratic trade unions and their right to strike. This is linked to the fact that there are few examples of construction workers' strikes, legal and practical obstacles to collective bargaining and trade union discrimination exist both in law and practice.⁹⁷

The right to strike, for example, is rendered ineffective by clauses in employment contracts, which stipulate that absence from work can be considered a breach of contract and lead to dismissal. In addition, workers who have been sacked by

their employer because of trade union membership have no means of enforcing their reinstatement under Hong Kong law.⁹⁸ The ILO has consistently criticised Hong Kong for these practices since 1998, but little has been done to address the issues.

Figure 28: Private sector construction workers protest



Source: www.hkdigit.net⁹⁹

Unions have worked with the private sector on initiatives, such as the “Green Projects More Jobs” development, which is a product of unions and MTR Corporation. This proposal would create 5,000 new jobs for the construction industry but more importantly it demonstrates that companies and unions can work together to provide opportunities for the workforce.¹⁰⁰

But construction workers are in many ways at the mercy of the economy and the initiation of large infrastructure projects. In today’s stimulus-fuelled environment, construction workers in Hong Kong are busy with new large infrastructure projects such as the Hong Kong-Zhuhai-Macau Bridge, the high-speed railway to Guangzhou, MTR’s expansion projects and other government infrastructure works. This high level of projects could create a problem for developers, as the rapidly aging construction workforce may be spread too thinly and unable to cope with demand.

In order to support worker development, the government has dedicated US\$13 million to help the industry through training programs that include developing basic skills. Graduates can expect jobs that pay at least US\$1,030 monthly.

Low-paid construction workers will also benefit from recent agreement among Hong Kong officials regarding minimum wage levels across all industries. ChannelNews Asia reports that the new agreement, which full will not be implemented until 2011 will establish a minimum wage level in the region of US\$3.60 or US\$3.73 per hour,¹⁰¹ far below those of the United States and Europe.

A new government commission was tasked with deciding the new wage floor following a UN Development Programme review in 2009 that put Hong Kong at the top

of a list of developed countries with the largest disparity between rich and poor. The research is based on the Gini coefficient, a standard measurement of inequality of income and wealth. A high Gini score signifies a greater disparity of wealth.¹⁰²

Figure 29: Gini Coefficient for developed countries

1. Hong Kong - 43.4
2. Singapore - 42.5
3. United States - 40.8
4. Israel - 39.2
5. Portugal - 38.5
6. New Zealand - 36.2
7. Italy - 36.0
7. Great Britain - 36.0
9. Australia - 35.2
10. Ireland - 34.3

Source: Asia Correspondent Web Site¹⁰³

Business groups in Hong Kong have warned that the wage floor would lead to job losses and overwork among retained employees. However, a 2010 Oxfam survey found that 70 percent of Hong Kong residents support a minimum wage that enables workers to support a family, while over 60 percent believe the hourly wage should be set at US\$3.90 per hour or more.¹⁰⁴

Hong Kong is also the only developed economy without legislation on maximum working hours. A workweek of 60 hours or more is not unusual and moreover considered low in the construction industry due to their six-day working week. The same Oxfam study highlighted that the majority of residents (65 percent) support legislation on maximum working hours with over 80 percent (89 percent) saying that the problem of overtime work in Hong Kong is 'severe'.¹⁰⁵

New legislation on minimum wages and working hours will put pressure construction company margins and on the budgets of building projects in Hong Kong. The combination of increasing cost of materials, property prices, operating equipment and rising wages has already caused project costs to escalate dramatically in recent years in Hong Kong. For example the almost US\$1 billion earmarked for MTR's South Island Line has reportedly risen by more than 50 percent due to price increase in construction costs, linked to materials costs and wage increases.

Migrant labour in Hong Kong and China

As at the end of 2008, there were only 1,338 reported migrant workers in Hong Kong under the Supplementary Labour Scheme. They include construction workers as the scheme targets workers to take up jobs at 'technician level or below which cannot be filled locally'.¹⁰⁶ Of course there may be more employed illegally but no publicly available figures or estimates are available. The plight of migrant construction workers globally has been covered extensively in the press. While it is difficult to find examples from Hong Kong, 2009 research from Guangdong Province sheds light on some of the key issues.

Case Study: SACOM



Students & Scholars Against Corporate Misbehavior (SACOM) published a study in January 2009 on the construction practices of one particular Chinese developer, New World China Land the mainland China property flagship of New World Development. This company was investigated primarily due to its financial success, (it posted profits of US\$335million in 2010), however, focus was also due to its claim of being 'a good corporate citizen' in its external communications.

Figure 30: Chinese construction site



Source: SACOM

SACOM conducted the study from July to December 2008, with two groups of student volunteers from Hong Kong and China universities visiting nine New World China Land construction sites in six cities: Chengdu, Guiyang, Changsha, Wuhan, Shenyang, Guangzhou. The sample size was 1,284 interviewed workers and supervisors representing around 13 percent of total construction workers on site. The outcome of this study highlighted some of the most problematic working practices in the industry.¹⁰⁷

First, the number of migrant workers with labour contracts is low and employees are often at the mercy of a subcontracting system that creates a complex web of employment, with contractors rarely taking responsibility for paying the worker. Payments are often overdue, in some cases by years. On the sites, the foremen are all-powerful and punishment and fine systems are put in place by the senior staff, which used to supplement their income. Ten hour workdays are the norm. At the construction site of Chanjing Garden in Wuhan, cement and concrete workers worked 560 hours in July 2008.

COMMUNITY

Hong Kong's unique system of land administration and urban planning has created an inefficient and distorted land market. Real estate development is therefore extremely capital-intensive with high barriers to entry. The market is imbalanced and dominated by a small number of large players that are generally unwilling to invest in older parts of the city as they are less profitable than greenfield site developments. Smaller players and individual owners often find it prohibitively expensive to renovate city properties. When development does take place in city areas, the focus is on extracting as much value as possible from the plot, with little emphasis on urban design and community living.

The government consults with the public on key issues, and civil society groups are outspoken and prevalent. Organisations such as Designing Hong Kong are engaging the public in a series of debates that focus on the sustainable development of Hong Kong's infrastructure. Its CitySpeak engagement seminars are particularly successful, attracting the attention of government officials who now regularly attend the events in an effort to gauge public opinion. These seminars have addressed issues such as ventilation, air quality and most recently housing affordability.

Consumer power grows

A number of groups dedicated specifically to urban design problems are active, including Designing Hong Kong, Save Our Shorelines and the Harbour Business Forum.

The internet has enabled citizens to mobilize more easily and cheaply. The alternative news site InMediaHK played a role in organizing opposition to the demolition of the Star Ferry and Queen's Piers in 2006 and 2007.⁹ It also addressed concerns over the Express Rail development in 2009-2010. Young people, inspired by the exploration of their roots and heritage, have driven many of these online campaigns. Consumer power is also growing in mainland China with several litigation cases involving developers, a rarity until very recently.

Case Study: Consumers sue developers in China

A South China Morning Post article on 13 September 2010 highlighted that hundreds of Shanghai homeowners in the Waltz Garden complex in Xuihui are planning to sue China Vanke, accusing it of selling a building in their housing estate that they say belongs to them.¹⁰⁸

The building in question, which previously housed an exercise centre and service businesses, was reported to have been sold by Vanke subsidiary Caohua to develop a hotel.

Residents initially attempted to stop the hotel conversion including the erection of an external wall. After this failed, they began to collect files about the Waltz Garden development from government departments. Some documents had officially designated the multi-purpose building as a public-use venue and an integral part of the complex, reinforcing the residents' belief that they owned it.

The complex's 778 households have had to seek authorization from a range of district authorities to hold meetings, and coordinating the interests of this group has been challenging. Moreover, the property management companies that are involved in setting up the original committees are often linked to developers as well as local governments, and so struggle to act in the best interests of the residents.

Although unresolved, this case clearly demonstrates the growing persistence from the public to protest in a system that normally disregards the public's opinions.



Hong Kong Harbourfront enhancement

Land reclamation, particularly in the vicinity of the Victoria Harbour, is an area where public concern has impacted government policy. Land reclamation has been used in Hong Kong since the earliest years of British rule to meet the growing demand for developable land. Government revenue for public works is also generated from the sale of this precious land resource. Since the early 1840s, 7,000 hectares of land have been reclaimed in Hong Kong. The desire to access development plots around the harbour with their associated high values has pushed wharfs, passenger piers, warehouses, ship-building and repairing facilities to outlying areas. The resultant vacant spaces have been turned into commercial and residential facilities.

Since the 1990s, public concern has been mounting around the preservation of the harbour and its associated historical monuments, seen as a vital component to the economic and social success of Hong Kong. The presence of a safe, all-weather, deepwater harbour was one of the principal advantages that led to the establishment of a permanent European trading settlement at Hong Kong. In 2004, the government had to halt future reclamation of the harbour when the Court of Final Appeal handed down a judgment against reclamation as specified in the Protection of the Harbour Ordinance. This can only be reversed by establishing an 'over-riding public need' for reclamation. With substantial reclamation no longer an option, the focus has now moved to the best use of the limited land available on the foreshore.

Development of the foreshore has been haphazard with major transport infrastructure and public utilities taking prime sites, making the harbourfront difficult to access on foot. This contrasts with other famous harbourfronts in the world that are developed as commercial, cultural and recreational areas. Strategies that have been implemented elsewhere include planning tunnels for roads (Boston and Sydney), re-planning and rebuilding less intrusive infrastructure (San Francisco), and providing pedestrian access at ground level through a series of roads radiating from the town to the harbour front (Barcelona). The development of an attractive harbour front would add to the well being and quality of life of the 8.3 million residents predicted to live in Hong Kong by 2030 and would continue to act as a magnet for the tourists that are expected to reach 70 million by the same date. Importantly for investors, an enhanced quality of life would continue to attract the top global talent necessary for Hong Kong's sustained economic growth.

Despite the need to establish an 'over-riding public need', reclamation projects continue. The Central and Wan Chai reclamation project initiated by the government in 1995 has five phases. It has been a focus of attention from NGOs and the public alike. Questions posed by the Society for the Protection of the Harbour, a Hong Kong based NGO set up in 1995 to "protect Victoria Harbour from destruction through Government's excessive reclamation", highlight their concerns that the issue of 'public need' is not being proven sufficiently before development strategies are implemented. It points to the fact that the recent proposal for the Central Reclamation will not only reduce the size of the harbour, but reduce living standards of those on the island through the expected 7,623 additional cars that the 9.24 million square feet of new office and commercial space will attract. In its open letter to the South China Morning Post, the NGO specifically asks how much of this development will be sold to benefit real estate developers.¹⁰⁹

The government has responded: in 2010, Hong Kong's Chief Executive appointed Nicholas Brooke, a respected property consultant, to head a new Harbourfront Commission that succeeds the Harbour-front Enhancement Committee. The newly-formed commission comprises mostly non-official members, including 12 representatives nominated by professional institutes, civic

and environmental groups and the business sector, and eight individuals drawn from sectors like architecture, planning, surveying, engineering, accountancy, tourism, real estate and district councils. The civic representation includes the Chairperson of the Society for the Protection of Hong Kong Harbour. It is hoped that this committee will be able to redress the balance away from revenue generation towards a long-term strategic plan for the harbour that will support the sustainable development of this important asset.



A low-angle, upward-looking photograph of several modern skyscrapers. The buildings feature glass facades and concrete structures, with some windows reflecting the sky. The perspective creates a sense of height and architectural scale.

ISSUES FOR
RESPONSIBLE
INVESTORS

GOVERNANCE

In 2010, Hong Kong was again named the world's 'freest economy' by the US-based Heritage Foundation.¹¹⁰ This freedom afforded to business in Hong Kong has been one of the key factors behind its growth and attractiveness to foreign multinationals, in turn driving its position as Asia's leading business hub, with the perceived benefits of:

1. A simple tax system and low tax rate
2. Free flow of information
3. Absence of exchange controls
4. A generally corruption-free government
5. Good communication, transport and other infrastructure
6. 'Free Port' status
7. Political stability and security
8. An excellent location on the edge of a huge and fast growing market
9. A respected 'Rule of Law' and independent judiciary
10. Availability of business services, talent and professional support services

However, beyond a stable environment in which corporations can operate, good corporate governance is also required in order to maintain market integrity. This is seen as central to the health and stability of the Hong Kong economy. Research from 2002 reviewed the corporate governance practises of 168 listed companies in Hong Kong and found that there is a positive and significant relationship between the market-to-book value ratio (MTBV) and corporate governance index (CGI) assessment.¹¹¹ This further develops the argument that strong corporate governance is, in itself, linked to stronger financial performance.

ASR™ GOVERNANCE SCORES COMPARED

Strong disclosure in the governance category placed Hong Kong 4th out of the 10 countries included in the ASR™ 2010, with a score of 65 percent, compared to the 8th place it achieved overall in the ASR™. China came 8th out of 10 on governance, with a score of 44 percent, and Taiwan came last in our universe of 10 Asian markets in Asia ex Japan. With investors generally emphasising governance over environmental impacts and social issue management, this goes some way to explaining the continued dominance of the Hong Kong listed 'China plays'.

Governance scores in Hong Kong, however, lagged substantially behind the leaders, Thailand and Singapore. It should be noted that while the Thai universe was relatively small at twenty companies, they performed surprisingly well compared to their relatively poor performance in 2008.

There has been much emphasis in Hong Kong over the past two decades on enforcing legal requirements that steer reporting on governance. By comparison, reporting standards on environmental and social issues are not yet legally enforceable and companies tend to draw from international reporting methodologies such as the GRI as well as their local and global sector peer group to develop standards of disclosure.

Figure 31: ASR™ comparison across Asia and Governance only

ALL ASIA			GOVERNANCE ONLY		
Country	ASR™	Ranking		ASR™ Governance	Ranking
South Korea	44%	1	Thailand	75%	1
India	43%	2	Singapore	72%	2
Malaysia	42%	3	Malaysia	68%	3
Thailand	40%	4	Hong Kong	65%	4
Singapore	39%	5	Indonesia	56%	5
Indonesia	38%	6	India	55%	6
Taiwan	34%	7	South Korea	48%	7
Hong Kong	33%	8	China	44%	8
Philippines	29%	9	Philippines	44%	9
China	20%	10	Taiwan	41%	10

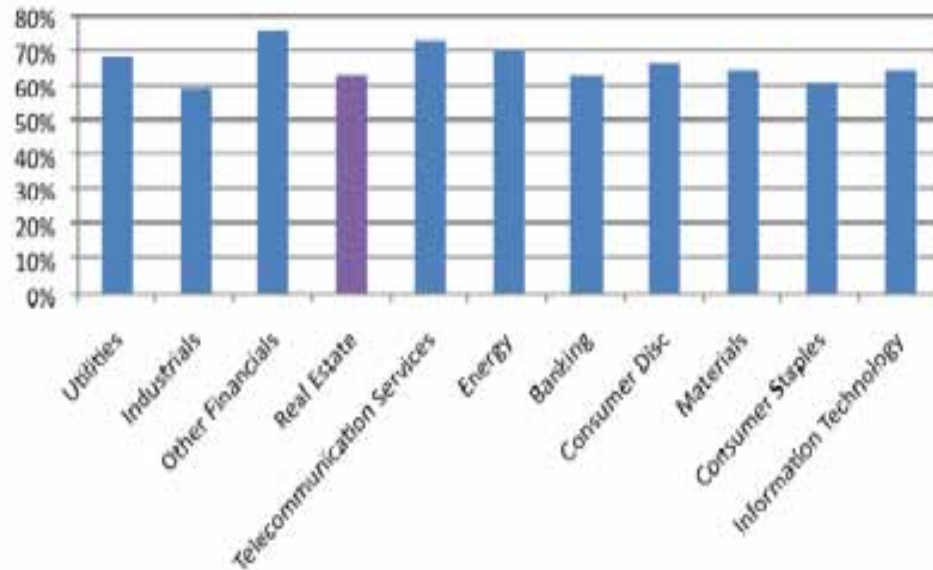
Source: ASR™ 2010

Focus on real estate disclosure

The ASR™ score for Hong Kong on corporate governance is based on 26 indicators of governance policy, reporting quality, systems, financial control, board quality and independence and audit quality. It enables comparison with other countries. The SAR's low score is strongly influenced by the performance of the large Hong Kong developers, which account for 53 percent of the Hong Kong ASR™ universe by free float market capitalization.¹¹² Our Hong Kong real estate universe averages a 3 percent lower score for governance reporting than the larger universe of 63 companies.

Due to clearer defined requirements in the area of governance, all sectors reviewed in Hong Kong scored over 60 percent and there was much less variability than in the environmental and social categories. However, it is still clear that the real estate sector in Hong Kong has a long way to go to reach the quality of reporting seen by leaders in Thailand, Malaysia and Singapore.

Figure 32: ASR™ Governance across sectors in Hong Kong



Source: ASR™ 2010

Examining the ASR™ scores in more detail allows us to focus on four separate but interlinked issues that are most relevant to Hong Kong real estate companies:

- Quality of the board
- Transparency of real estate transactions
- Transparency of land bids
- Corrupt business practices

INDEPENDENCE OF BOARD OF DIRECTORS

The board of directors of a company has a primary responsibility to monitor the management of a company on behalf of its shareholders. The effective role of the board is determined by the independence, relevant qualifications and experience of this group.

Board members with relevant skills and experience

This is an area where Hong Kong companies report well, with 83% of companies in our universe able to communicate the relevant qualifications and experience of board members. Comprehensive reporting in this area is in line with that of the global peer group and it appears that Hong Kong real estate companies do not have problems attracting or retaining independent directors with the relevant skills. However, as highlighted by Mr. David Webb, a Hong Kong- based shareholder activist who publishes his insights on webb-site.com:

"INEDs (Independent Non-Executive Directors) are often unqualified. They can be school friends of the Chairman, or medical doctors, or cadres in mainland towns in which the companies do business. Too many INEDs are little more than rubber stamps who resign at the first sign of trouble."

Independence of the Board of Directors

In addition to communicating on qualifications and experience, the board needs an independent voice in order to ensure that it makes decisions in the best interests of company shareholders. In our review of Hong Kong listed real estate companies only 17 percent have more than 50 percent of the board members are declared as independent.

The lack of board independence is clearly a concern for minority shareholders of listed companies, but particularly in Hong Kong where the leadership of these mega-companies tends to derive from a few select successful families. For example, upon inspection of annual reports, we identify that 6 of the 20 board members at Henderson Land are from the same family.

Figure 33: Board representation of four Real Estate developers

	Hang Lung	Sun Hung Kai	Kerry Properties	Henderson Land
Number of board members	11	18	11	20
Number of independent	6	11	4	8
Number of board members of same family	0	4	0	6
>50 percent independence	Y	Y	N	N

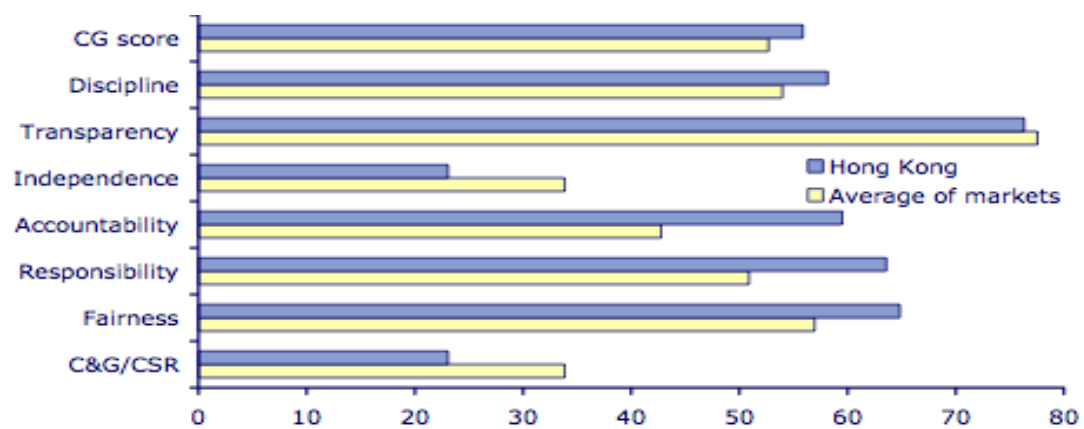
Note: All information in this table is based on publicly disclosed information only

Source: Relevant company websites, accessed 25th September 2010

The low level of independence in Hong Kong companies in general is highlighted in the 2010 Corporate Governance report from Asia Corporate Governance Association with CLSA, which finds that Hong Kong, although it has strong performance across most governance performance categories, is 10 points adrift when it comes to board independence.



Figure 35: Hong Kong corporate governance scores against regional average



Source: CLSA¹¹³

Nomination procedure

Another aspect of board independence is the integrity and transparency of the nomination procedure by which members of the board are appointed. In Hong Kong, only 22 percent of the companies reviewed have clearly defined nomination procedures, with key exceptions being MTR Corporation, Hang Lung Properties, Guangzhou R&F and Wharf Holdings.

Independence also comes from the regularity by which new directors are appointed to the board. Individuals with fresh ideas, outside experience and who are not unduly influenced by strong, long term board relationships are vital in ensuring the independent voice of the board is maintained over the long term and preventing companies from stagnating and missing opportunities. In our sample of companies, only one, Hopewell Holdings, states that it has a maximum tenure of 6 years for independent non-executive directors.

Independent Chairman and CEO

The most important role on the board is the Chairman, who leads the directors. Along with most institutional investors, we believe this position should be kept separate from that of CEO, who manages the day to day running of the company. General consensus from corporate governance research is that a CEO who also serves as Chair can exert too dominant an influence on the board and its agenda, weakening the board's oversight of management. Separating the Chair and CEO positions avoids that fundamental conflict of interest and improves the balance of power between the CEO and the board, which is then more likely to act independently and monitor management more effectively.

A 2009 report published by the Millstein Center for Corporate Governance and Performance at the Yale School of Management found that 79 percent of companies in the United Kingdom's FTSE 350 index report that they have independent chairs. Splitting the two roles is also the norm in Australia, Belgium, Brazil, Canada, Germany, the Netherlands, Singapore and South Africa.

The United States presents a sharp contrast. According to a recent RiskMetrics Group study just 43 percent of public companies in the USA have a separate Chair. Things are changing, however, with the figure having risen from 25 percent in 2000. The catalyst seems to have been the financial crisis. Many big U.S. banks at the centre of the crisis combined the two positions, and shareowners have now stepped up the pressure for independent chair proposals along with other measures that seek to strengthen the accountability of the board.

Shareholders are increasingly taking action in regard to key governance issues, such as separation of Chairman and CEO, with four shareowner proxy resolutions advocating independent chairs won globally to date. The most notable was at Bank of America, where on April 29, 2009, 50.34 percent of shareowners voted to split the chair and CEO positions. Following the vote, then- CEO Kenneth Lewis stepped down as chair. The vote marked the first time that shareowners had forced a company in the S&P 500 to strip a CEO of Chair duties, according to RiskMetrics.

Despite all this change, and the availability of qualified individuals, some companies in Hong Kong, including Sino Land, continue to allow the positions of CEO and Chairman to be held by the same individual. In fact, upon review of both Hong Kong and Chinese real estate companies, only have 61% separated the position of CEO and Chairman, leading to increased potential for poor oversight of potential conflict in activities by the Board. The Hong Kong real estate lead the Red Chips in this regard. The majority of Chinese listed counterparts tend to combine the two roles.

TRANSPARENCY OF REAL ESTATE TRANSACTIONS

Delayed completions

An important case that has attracted both public outrage and government action is related to the manipulation of sales at 39 Conduit Road, a high end residential project in the Mid-Levels district which achieved record sales per square foot. We cover the background to the story below.

Henderson Land has continued to deny any wrongdoing at the time of writing, however, a government investigation has been initiated and Henderson Land has spent most of 2010 trying to rebuild its tarnished image in the marketplace.

We have already covered this case in the 'Social' chapter of this report, above, where we looked at responsible marketing to consumers. The case deserves a mention, however, to highlight the importance of creating a transparent market for transactions. We will also show how this case has caused government policy changes, to improve transparency.

Case Study: Henderson Land collapse of property sales at 39 Conduit Road

In October 2009, Henderson reported that it sold 24 luxury flats at 39 Conduit Road. Among these was an apartment with a price tag of US\$57 million, or US\$11.4 per square foot, setting a new world record at the time for the most expensive apartment ever sold. However, just eight months on 15 June 2010, Henderson said that prospective buyers had cancelled purchases of 20 apartments with a reported US\$94 million loss against earnings.

The apartments were sold to shell companies, which is not unusual in the industry due to the size of transactions involved. David Webb notes that in this respect there was no wrongdoing in terms of claims made, reporting or sales as no completed purchases were recorded with the Land Registry.¹¹⁴ However, although legal, the failed speculative transactions and use of a shell company to make the purchase created a sense of wrongdoing as it had a role in inflating the prices of the remaining flats. This incident attracted significant attention of Hong Kong residents and government officials alike.

On 18 June 2010, the government said that regulatory and law enforcement authorities would probe the Conduit Road transactions. Henderson Land declined an invitation to appear before a 12 July Legislative Council meeting and on 14 July, police seized documents while lawmakers met to discuss the matter.

This incident has led to increasing pressure for the government to introduce further legislation to increase the transparency of the sales process. The updated guidelines relate to sales practices and Hong Kong's government now requires developers to make transaction information available to the public a mere five days after an initial sales contract is signed.

The public's outrage over the incident and their general belief in greedy, market-manipulating developers appears to be sparking some industry self-reflection. The Real Estate Developers Association (REDA), an independent industry body whose members include most of Hong Kong's property developers, has appointed Ogilvy Public Relations to undertake a public perceptions audit with the aim of developing an overall communications programme. REDA and its members' action to establish a stronger, more transparent link between the property section and the public at large has been seen as positive.



Additionally, the recently updated nine point Real Estate Developers Association guidelines stress that the “five-day disclosure rule on transactions will include transactions which involve members of the Board of the developer member and their immediate family members”. It is not uncommon in Hong Kong for a developer to sell many units in a primary sale to companies owned by the dominant family members.

Although no wrongdoing has been proven in the Henderson case, it is important to highlight the reputational impact that allegations of this nature can have on a company, even in a sector where public expectations are low. However, despite the reputational damage to Henderson Land, analyst reports from CLSA around the time of the news continued to rate Henderson as an “outperform” due to the company’s low debt level and high rental income. Comments from CLSA reported in Business Week highlight that, although reputational risk was high, the strength of the property market and current high yields and sales prices, along with the strength of Henderson’s balance sheet and size of its land bank, mean that there has not been a strong negative influence on the long term viability of the Henderson business.¹¹⁵

The key threat to the viability of the large Hong Kong developers is the risk that new legislation would redress the balance of power away from developers and the massive land banks they have amassed. Changes in this area have, so far, been incremental and reactionary rather than systemic and strategic. There is certainly no drive by the industry to rewrite the rules by which sales take place. Discussion in the press has highlighted that recent changes may not prevent sales manipulation from reoccurring, as there is no penalty for not following the guidelines. Following the case of delayed completion at 39 Conduit Road, critics have called on the government to consider creating a regulatory body to oversee home sales in the same way that Hong Kong’s securities regulator polices the stock market.¹¹⁶

TRANSPARENCY OF LAND BIDS

The land tenure system in Hong Kong dates back to colonial times when the British government put all land in the colonies under long leases, to be sold at the government's choosing to raise money for public spending without the need for taxation.

This created a property market model in Hong Kong where a purchaser buys land for a large sum and then pays interest on this sum during the development phase, with the hope that by the time of sale the price will have risen enough to cover borrowing costs. When land prices were lower, there was a relative balance between ground rents and up-front premiums. However, rising land prices has meant that the system has become increasingly imbalanced, with very low ground rents and large up-front premiums for the right to develop or redevelop land.

An article on Webb-site highlights the consequences of this system for the real estate sector¹¹⁷:

- Reduced competition - only a handful of large developers have big enough balance sheets to afford large-scale projects on their own
- Volatile government revenues - the government receives lump-sum revenues in return for future land use rather than recurrent ground rents
- Focused spending - land premiums in the Capital Works Reserve Fund (which finances public works programmes and acquires land) are often spent on infrastructure projects regardless of their economic value and environmental cost
- Capital liquidity - businesses and individuals have excessive amounts of capital tied up in properties rather than having more long-term obligations to pay ground rents.

Anti competitive real estate environment

The oligopoly of a small number of large developers has an impact on consumers who face limited choices.

The government frequently grants 50-year extensions of expiring leases without requiring additional payment. This practice is not mandated by law, however, extensions are given at the government's sole discretion, which helps to guarantee good behaviour. The only income the government receives from this lease renewal is an annual ground rent of just 3% of adjustable rateable value (the rent the property would fetch), leaving the other 97% for the leaseholder. This financial structure has been the driving force behind persistent high land prices at the auctions.

A transparent land bidding system is vital and the bidding procedure used depends on the type of property being sold. Government land auctions are public and attract significant attention due to the high prices and consumer concern that land prices will influence the price of the properties they own or plan to own in the future. Despite transparent land auctions, the established structures do not prevent market manipulation, as shown by a recent case involving Sino Land and Nan Fung.



Case Study: Land bidding in an anti competitive environment



Reports from March highlighted the challenge of having too small a number of property developers in Hong Kong. Sino Land and Nan Fung Development were bidding against each other for government land in a public auction. In the middle of the auction, Sino Land Chairman Robert Ng reportedly leaned over and briefly chatted with Nan Fung director Donald Choi. At this point the two stopped entering competing bids and formed a consortium to buy the property in a 50-50 joint venture for HK\$270 million.

This type of market manipulation may be illegal in other countries due to competition laws that prevent large players to undertake uncompetitive bidding. But the lack of such a competition law in Hong Kong it is commonplace. The government has been known to intervene and remind developers to follow guidelines for bidding.

Kenneth Li, spokesman for Sino Land, responded to criticism in an e-mail, saying: "We have done everything in a proper manner, and we have no comment on this issue." Nan Fung did not respond to requests for comment.

This case explains why pressure has been building for Hong Kong to introduce an anti-competition law. A Competition Bill was finally introduced to the Legislative Council in July 2010 for debate in the upcoming 2010-2011 Session, with the expectation that new laws will be passed by 2012.

This Bill aims to "prohibit and deter undertakings from adopting abusive or anti-competitive conducts in all sectors which will have the effect of preventing, restricting or distorting competition in Hong Kong."¹¹⁸ It specifically regulates two broad categories of anti-competitive conduct: anti-competitive agreements/concerted practices and abuse of substantial market power.¹¹⁹ The Bill is comparable to the Anti-Monopoly law in mainland China, shown on the following page.

Figure 36: Hong Kong's new competition law compared to the anti-monopoly law in mainland China

	PRC	Hong Kong
Prohibition against anticompetitive agreements	Yes	Yes
Prohibition against abuse of dominance	Yes- 'dominance' presumed at 50 percent market share for an individual undertaking	Yes – 'substantial market power' presumed at 40 percent market share
Merger Control	Yes	Only in telecommunications sector
Penalties for anti competitive agreements	One to ten percent of turnover	Up to ten percent of turnover
Penalties for abuse of dominance	One to ten percent of turnover	Up to ten percent of turnover

Source: Clifford Chance, July 2010¹²⁰

Once introduced, enforcement will be critical. The body charged with this task will be an independent statutory body – The Competition Commission – which will present cases before the Competition Tribunal. Cases can also be brought by private parties.

It will be worth noting this legislations success in curtailing the activities of real estate developers in Hong Kong. Firstly, because developers have grown so large and gained so much power across a range of vital industries, the government may find it difficult to enforce new regulations. Secondly, the government and developers have shared interest in maintaining high land prices.

A shared interest in from land price increases

The potential for conflict and collusion in the setting of land prices in Hong Kong has often been noted. Both developers and government benefit from increasing land prices. The government as they receive land revenues and the developers through the increasing values of their huge land banks acquired over many years, which tends to outweigh the short term pain. Most developers would be very concerned should a plot suddenly be sold at a bargain price as it would mean a downwards revaluation of their substantial asset base. For example, Cheung Kong, chaired by billionaire Li Ka-shing, is estimated to have a land bank of 40 million square feet, enough to keep the company in development for the next 5 -6 years at normal rates of construction.¹²¹ Sun Hung Kai, in comparison, has 44.2 million square feet gross floor area in their land bank.¹²²

Developers want land bids to go well so that property prices continue to rise. Even when market sentiment is wavering and sites for sale are not in prime locations, developers with upcoming property sales will bid to support strong future sales in their own development launches.¹²³ As Charles Chan Chiu-kwok, MD, Savills Valuation and Professional Services remarked, "they will bid for the



sites because a poor land auction result will dampen the market sentiment."¹²⁴ As an obligopoly, it is in developers' better interest to act collectively rather than foster a competitive environment.

Risk to developers from land policy changes

In addition to appropriately enforcing the upcoming competition law, future administrations should change the land policy by which land leases are granted, renewed and converted. The book 'Land Valuation' by Ms. Alice Poon Wai-han, highlights the plight of homeowners at the mercy of developers. Ms. Poon's long career working for developers in Hong Kong lent insight to her analysis of the land allocation system. She proposes a land value taxation system that, if implemented, would smooth the revenues to government from land sales as well as also to reduce the dominance of the largest Hong Kong property developers

This land value tax Ms. Poon proposal is based on economic usage, with different tax rates depending on the commercial intensity of use. Developers would be deterred from keeping land undeveloped and waiting for prices to increase – creating a shortage of developments. Instead, they would be encouraged to develop marketable, commercially viable property, which will help companies meet their future tax obligations.

It would also enable smaller players to engage more actively in the marketplace and potentially compete with large developers. This would diversify the real estate industry, reduce the opportunity for collusion, and potentially achieve more than any competition law could ever achieve through enforcement.

Respected journalist Jake van der Kamp, endorsed Alice Poon's arguments for a land value tax system. Although Ms. Poon sees weak government in Hong Kong as one of the largest drivers of the lack of competition in the property marketplace, Mr. van der Kamp argued that the land tenure system in itself is the main contributor to the problem;

*"It is not weak government that has created a property economy in which only a few tycoons dominate. It is rather the inheritance of a more than 200-year old system of land tenure, which was devised for purposes having nothing to do with economic efficiency in Hong Kong today."*¹²⁵

- 'Jake's view', Page B4 SCMP, Tuesday, August 10, 2010

CORRUPTION

Hong Kong ranks twelfth out of 179 countries in Transparency International's Corruption Perceptions Index for 2009. Legal frameworks criminalize corrupt practises such as bribery and enforcement is strong.

Hong Kong has taken a proactive approach to fighting corruption. Following the rapid growth in population and manufacturing during 1960s and 1970s, the Independent Commission Against Corruption (ICAC) was set up to fight corruption through effective law enforcement, education and prevention. 65 percent of companies in our universe have an anti-corruption and bribery policy in place.

The strongest disclosure from companies in Hong Kong, such as MTR Corporation, highlights the focus on corruption but also links this to reporting to agencies such as ICAC.

*"The Company shall not tolerate any illegal or unethical acts. Anyone violating the Code of Conduct shall be subject to disciplinary action, including termination of employment for serious breaches and offences. In cases of suspected corruption or other forms of criminality, a report shall be made to the Independent Commission Against Corruption or appropriate authorities."*¹²⁶

- MTR Code of Conduct

Low corruption levels is a benefit to businesses in Hong Kong, as corruption is estimated to increase project costs by 10-25 percent.¹²⁷ In addition to direct financial costs and lost business opportunities, corruption causes substantial damages to brand, staff morale and external business and government relations.

There have been some publicized cases of corruption in the real estate sector in Hong Kong in recent years. A recent case provides insight into how seriously the issue is being taken in mainland China.



Case Study: Corruption charges against Beijing Pengrun Real Estate



Earlier in 2010, Chinese business tycoon Huang Guangyu, at one time the richest man in China, was sentenced to 14 years in prison and fined US\$88million after being found guilty of bribery, insider trading and illegal business practices.

Huang built his fortune through investments in property and also owned the second largest chain of domestic appliance shops in China through his Gome business. Gome and Huang's property development company, Beijing Pengrun Real Estate, had reportedly paid out over US\$680,000 in bribes between 2006 and 2008. The bribes, in the form of cash and properties, were paid to five government officials who were also convicted for accepting the bribes.

Gome and Pengrun were fined US\$750,000 and \$US180,000 respectively, a pittance for a multi billion dollar empire. However, Huang was found to be personally liable for bribes so was also prosecuted individually. In addition to the bribery, he was charged with manipulating share trading for two listed companies - Sanlian Commercial Co and Beijing Centergate Technologies Co - and illegally trading US\$105 million in 2007.

This case is far from an isolated event in China as officials and businessman are regularly accused of corrupt practices. Previous high-profile corruption cases in China have resulted in death sentences. These include the Chen Tonghai, the former head of oil giant Sinopec, sentenced to death in July 2009 for taking nearly US\$20 million in bribes. Huang admitted guilt and cooperated with investigators; and thereby avoided execution, Huang's wife is also facing trial.

China appears to be serious about tackling the root causes of corruption rather than fining the businesses that employ corrupt persons. Premier Wen Jiabao vowed to launch a fresh drive against corruption as it has "a direct bearing on the firmness of our grip on power".¹²⁸ It is unclear whether this one case will lessen corrupt practices elsewhere in China, as high profile convictions have not appeared to reduce corruption levels in the past.

APPENDICES

APPENDIX 1

ASR™ Scoring Methodology

- 1.** Scoring for each indicator is binary and a full point can only be achieved if submissions are in English, which is the primary language that companies must use to successfully communicate with the global investment community. However, ASR™ aims to give a more accurate reflection of the strategic sustainability of companies in Asia by giving a half point score if the data is provided only in the local language with no English language translation.
- 2.** Listed subsidiaries are treated as separate investable entities from holding companies. As such, unless explicitly stated by the subsidiary, scores for policies (e.g. human rights, supply chains) are not based on publicly disclosed information of the holding company. Information declared by the holding company as an aggregate (e.g. energy usage, water consumption) is not considered sufficient for developing an understanding of the subsidiary's sustainability practices.
- 3.** Additional analysis of the results identified ten indicators that have no strong positive correlation with material sustainability disclosure across both countries and sectors. Whilst these are important starting points for companies, the scores for these indicators were classed as 'low impact' and were removed from the final ASR™ scoring.



APPENDIX 2: Comparison of LEED, BEAM and Three Star

Chinese Three Star System						
Full Name	First published	Created by	Applies to	Sub-systems	Category	Criterion
Green Building Evaluation Standard of China	2006	Ministry of Construction of P. R. China (Now known as Ministry of Housing and Urban-Rural Development or MOHURD)	"Green Building Label" Management Office, Center of Science and Technology of Construction, Ministry of Housing and Urban-Rural Development (MOHURD)	Two different standards: one for residential buildings and one for public buildings (i.e. large commercial).	1) 1-star 2) 2-star 3) 3-star.	The evaluation standard rates buildings with a variety of prerequisites (called "control items" in the Chinese system) and credits (called "general items") in six categories: 1. Land savings and outdoor environment 2. Energy savings 3. Water savings 4. Materials savings 5. Indoor environmental quality 6. Operations and management A seventh category called "Preference items" contains strategies that are both cutting-edge and harder to implement, such as brownfield redevelopment, more than 10 percent on-site renewable power generation, etc. (See details below)

HK BEAM						
Full Name	Published	Created by	Applies to	Sub-systems	Category	Criterion
Building Environmental Assessment Method	Adopted since 1996	The BEAM Society is a non-profit organization that owns and operates, on a self-financing basis, the Building Environmental Assessment Method (BEAM). The HK-BEAM Society consists of individual and corporate members from all disciplines (owners, developers, facility managers, designers, researchers, contractors, product and material suppliers, etc) with an interest in enhancing building environmental performance.	BEAM assessments are currently undertaken by the Business Environment Council (BEC), an independent, non-profit, environmental information centre, under the guidance of the BEAM Society Executive Committee.	The BEAM scheme was established in 1996 with the issue of two assessment methods, one for 'new' and one for 'existing' office buildings largely based on the UK Building Research Establishment's BREEAM. In 2009, BEAM Plus was modified to meet the higher expectations of the public and communities. Since April 2010, BEAM Plus for New Buildings (Version 1.1) 2) BEAM Plus for Existing Buildings (Version 1.1)	1) Bronze 2) Silver 3) Gold 4) Platinum	HK BEAM adopts a similar credit basis evaluation approach to benchmark the overall environmental performance of buildings throughout its life cycle in terms of: 1) Site considerations 2) Material usage 3) Energy aspects 4) Water consumption 5) Indoor environmental quality 6) Innovations For each performance category, BEAM prescribes prerequisites which must be satisfied for the credits within the same category to be counted towards the awards.

US LEED					
Full Name	Published	Created by	Sub-systems	Category	Criterion
Leadership in Energy & Environmental Design	In 1998 the LEED 1.0 pilot program was released. During the pilot period, extensive revisions were made and by March 2000, LEED 2.0 was released to the marketplace.	U.S. Green Building Council (USGBC)	Today, LEED consists of a suite of nine rating systems for the design, construction and operation of buildings, homes and neighborhoods. Five overarching categories correspond to the specialties available under the LEED Accredited Professional program. That suite currently consists of: Green Building Design & Construction LEED for New Construction and Major Renovations LEED for Core & Shell Development LEED for Schools LEED for Retail New Construction (planned 2010) Green Interior Design & Construction LEED for Commercial Interiors LEED for Retail Interiors (planned 2010) Green Building Operations & Maintenance LEED for Existing Buildings: Operations & Maintenance Green Neighborhood Development LEED for Neighborhood Development Green Home Design and Construction LEED for Homes	- Certified - Silver - Gold - Platinum	The rating systems address eight major areas: - Location and Planning - Sustainable Sites - Water Efficiency - Energy and Atmosphere - Materials and Resources - Indoor Environmental Quality - Innovation and Design Process - Regional Priority Prerequisites in each category do not receive points and are mandatory for all projects. In LEED 2009 there are 100 possible base points plus an additional 6 points for Innovation in Design and 4 points for Regional Priority. Buildings can qualify for four levels of certification: Certified - 40 - 49 points Silver - 50 - 59 points Gold - 60 - 79 points Platinum - 80 points and above

APPENDIX 3:

Environmental Reporting in China

Company	Stock Ticker	Environmental Reporting	Green Building specific developments
China Vanke	2:CH	Environmental data available on an individual project basis. Overall strategy and future aspirations communicated on a company basis through Green Book (Annual Social Responsibility Report) published in 2007, 2008, 2009, but only in Chinese. Vanke set up its Corporate Citizenship Office in 2007.	The Vanke Head Office currently under construction is a LEED Platinum precertified construction. First LEED platinum building in mainland China. Vanke completed the only certified three star building in mainland China.
Agile	3383:HK	No environmental policy or data reported. Some discussion of environmental issues pertaining to real estate but at a high level.	No LEED, Three Star of HK BEAM certified buildings completed. Engaged on projects with local governments proclaimed to be 'green'.
Guangzhou R&F	2777:HK	No environment policy And no energy, water, waste data disclosed. There is a two-page Corporate Social Responsibility Report in its Annual Report (2009, English), however it only covers Employee development and Community Service.	The company entered into various contracts with Guangzhou Canton-Rich Environmental Inc. ("Canton-Rich") amounting to RMB12,557,000 for the installation of environmental protection systems in its property projects.
Poly Real Estate	600048:CH	No environmental policy or data disclosed. In the future, Poly Real Estate will implement its "Green and Energy Conservative Building Strategy" but this is not communicated.	In 2009, Poly Fangulinyu project (Changsha) was selected by Ministry of Housing and Urban-Rural Development (MOHURD) as "Green Building and Low Energy Architecture 'double hundred' Demonstration Project". The Guangzhou Science City Headquarter project will follow the Three-star Green Building requirement.
Renhe Commercial	1387:HK	No environmental policy or data disclosed publicly.	No LEED, Three Star of HK BEAM certified buildings found.



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An aerial photograph of a dense urban skyline, likely Hong Kong, featuring numerous high-rise buildings and a body of water in the background. The image is split horizontally: the top half shows the city skyline, and the bottom half shows a lush green park area with a swimming pool and playground. A semi-transparent white box is overlaid on the left side of the image, containing text. A green rectangular box is overlaid on the right side of the image, containing the number 10.

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