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Contents

Foreword

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Real estate is at an inflection point. Urbanisation, the infrastructure gap, asset price inflation and shareholder activism mean that it's moving centre stage. When governments plan economic development and companies set strategy, real estate is higher up the agenda than ever before. Real estate is no longer just an investment issue – it's a strategic topic for governments and companies alike.

Why now? Firstly, urbanisation and infrastructure construction are spurring economic growth, especially in the developing world, making private sector real estate and infrastructure development critically important. Just consider, for instance, that in 2014 Malaysia's population was 74% urbanised, up from 50% in 1990, adding 13 million urbanites; and that Thailand's urban population rose to 48% from 29% over the same period [1]. Public sector coffers in developing countries cannot finance the housing, roads, utilities etc. needed as people move to cities in search of better lives.

Secondly, the value of real estate has surged at a time when shareholders are scrutinising how companies deploy their capital. Boards have to decide whether shareholders' funds are best deployed in expensive real estate or their core businesses. Shareholder activists in the US, and to a lesser extent Europe, are forcing companies to focus on why they hold real estate, encouraging them to sell it and lease it back if there's no convincing reason.

Our Real Estate 2020 paper envisaged world population growth driving a 55% increase in investable real estate from 2012 to 2020, with much of this expansion in emerging markets. Two further PwC papers – Cities of Opportunity and Building Better Cities – illustrate how economic growth is now centred on cities, which are competing to be great places to live as well as centres of commercial prosperity. Yet for this to happen they must plug an infrastructure funding gap that the World Bank estimates is more than US$1 trillion a year in emerging markets and developing economies.

This issue of Asset Management Insights showcases extracts from our recent thought leadership reports exploring the changing role of real estate. They showcase the views of our real estate specialists around the world. If you want more detail, we've included some links to the original reports. We hope you find these articles thought-provoking and helpful. Please don't hesitate to get in touch if you would like to speak to me, or any of my colleagues in our network, about any of the featured topics.

Barry Benjamin

1 The World Bank http://wdi.worldbank.org/table/3.12#

Real Estate Strategy and Real Assets

Active management of real estate assets is becoming a strategic imperative for users, and real assets include investment alternatives that present new and unique risk factors that need to be carefully evaluated in making investment decisions.

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It used to be that only those dedicated to the real estate industry actively sought to create value and generate risk appropriate returns from buildings and similar assets. But that's changing. As asset values increase, companies are re-evaluating capital committed to real estate, focusing on maximising returns on investment and planning for the strategic role of infrastructure and the related capital requirements. As a result, most organisations need a thorough real estate strategy that is in alignment with the overall corporate strategy. At a minimum, the importance of real estate and related priorities for serving operations, administration and other corporate demands, should be clearly reflected within the corporate strategy.

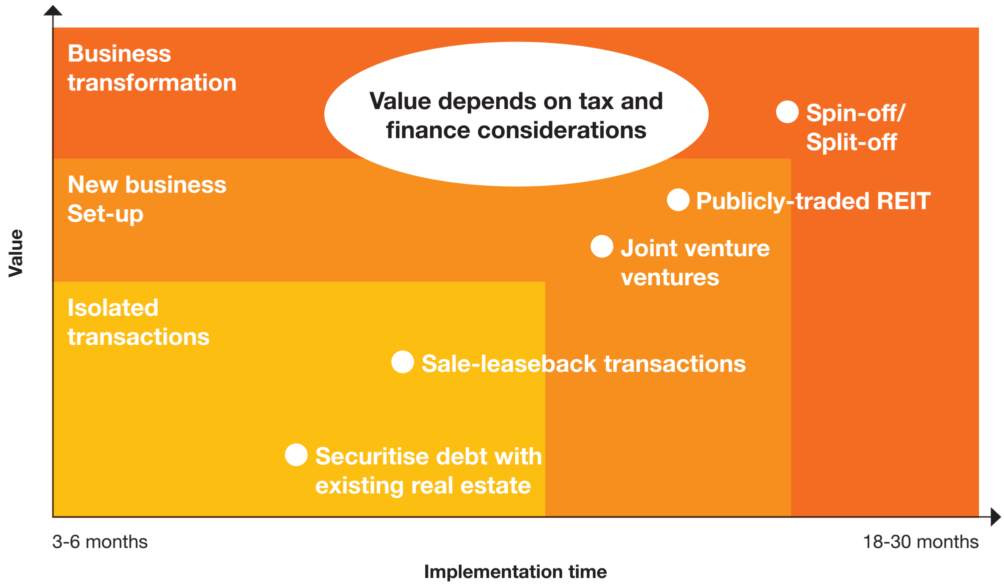
Many companies have significant capital tied up in real estate, which can lead to questions about the alignment of real estate investments with the overall corporate strategy. In addition, it has become fairly common for investors to challenge management on whether the deployment of capital to real estate is justified relative to more strategic priorities that might provide a superior return. How a management team chooses to deal with these issues can be critical to overall performance and significantly impact operating metrics, enterprise value and stock price. As a result, real estate issues are now being debated, and decisions are being made, in the C-suite at most companies with real estate dependencies (e.g., retail, hospitality, healthcare, technology).

Monetising real assets

In the US, shareholder activists are driving real asset dependent companies with significant real assets on the balance sheet to evaluate the potential benefits of a monetisation strategy whereas in other territories capital optimisation may drive these decisions. Real assets categorically include traditional real estate, such as office buildings, manufacturing facilities or retail outlets, and non-traditional assets, such as infrastructure, cell towers and utility transmission lines. The common attribute among these real assets is the potential to lease the asset and create a lease stream that can be monetised. One would expect that many well-managed companies can earn a better return investing capital in its core business, rather than allocating capital to real assets that are often not reflected at market value in a company's stock price and sometimes provide inferior returns relative to those generated by the core business. There's an argument to implement monetisation strategies elsewhere in the world, although investors in markets other than the US have to this point been less assertive in their demands of management.

As discussed above, many companies now incorporate domestic and global real estate priorities into strategic planning. If there are motives or needs to free up capital or unlock shareholder value, and it can be achieved without compromising the alignment of real estate strategy with overall corporate strategy, real estate monetisation presents some interesting options (see the accompanying table) and should be considered. Historically, monetisation transactions were typically used for traditional real estate, but the market has expanded to real assets. Real assets include traditional real estate and a diversity of other assets that generate discreet revenue streams from long-term leases, including billboards, cell towers and utility/telecom infrastructure.

Real Asset Monetisation Strategies



For real asset monetisation to make sense, a company needs to have a sizeable portfolio of real assets and/or long-term leasehold interests in real assets. There are sometimes implications derived from monetisation transactions that conflict with priority imperatives of the core business. These situations might arise from the need for absolute control over facilities, tight security and limited outside access or to locate in specified markets that align, convey an image or contribute to brand. It is important that these and other similar factors are thoroughly evaluated and resolved as part of the feasibility assessment of monetisation alternatives. In addition, management should assess whether the existing real asset footprint and usage models are optimum – from financial, operational, capital, tax and investor perspectives.

Infrastructure as an asset class

Turning to infrastructure, needs are growing fast. The World Bank estimates that, by 2030, the world will require 40% more energy and face a 40% shortfall of water – pressures that may be further intensified by climate change, amplifying the requirement for infrastructure investment globally.

The challenge is to solve the need for basic services like power, transport, water and sanitation with investable projects that provide risk-appropriate returns and can attract private capital. In 2015, the World Bank launched its 'Global Infrastructure Facility' (GIF), specifically to expand the universe of infrastructure projects that are suitable for private investment. To give some idea of the capital that could be put to work, the GIF's private sector advisory partners include investment institutions with approximately US$12 trillion of capital.

For investors, infrastructure is a potentially huge opportunity. The World Bank estimates an infrastructure funding gap of more than US$1 trillion a year in emerging markets and developing economies. At PwC, our 2014 Asset Management 2020 paper suggests that asset managers will play a more central role in economies, including through the financing of infrastructure projects. Investment managers are raising significant sums to invest in everything from airports, to power plants, transportation hubs and water treatment facilities. We've recently identified more than 200 dedicated infrastructure funds with a total value of US$86 billion, of which only US$19.6 billion has been deployed, leaving an abundance of dry powder competing for investment opportunities.

Collaboration between private investors and governments, whether through public-private partnerships or other creative structures, will be important to the pace of infrastructure development around the globe. As highlighted in PwC's 2014 Real Estate 2020 paper, unless governments can finance infrastructure through private investment, insulating them from the risks that have in the past imposed liquidity problems, impaired their borrowing capacity and put essential government services in jeopardy, many of these projects will not be economically feasible.

Real estate moves centre stage

Determining how capital should be deployed to maximize a company's overall return, in a low interest rate environment, is a unique challenge of the times and increasingly important for finance teams in the C-suite. In some cases, decisions regarding composition of the balance sheet or the capital stack can impact company performance to the extent that it becomes a differentiator among competitors. Integration or alignment of real estate strategy with financial, capital, operating, risk management and overall corporate strategies has emerged as an important priority for the C-suite. Meanwhile, the investment landscape continues to evolve, as demand for properties is affected by outside influences, development is underway or being planned in certain supply constrained markets and investment returns are at or near historical lows in many global markets. These and other factors will impact real estate strategy and should be monitored so that companies can move quickly to capitalize on market opportunities or eliminate downside risk.

Collaboration between real asset users and private investors has enabled monetisation and resulted in less real estate risk for many users, as well as new and unique investment opportunities for a broad range of investors. Comprised of relatively diverse income producing assets and including traditional real estate, real assets has emerged as a legitimate investment alternative for institutions, asset managers and private investors. In addition, infrastructure continues to attract large sums of capital which has contributed to intense competition for new deals. The attractive return potential and substantial capital requirements associated with infrastructure development projects is causing many asset managers to recast their allocation strategies.

Real assets have introduced new demands, presented new opportunities and become an important element of corporate strategy that requires significant consideration in the C-suite. The evaluation of investments and asset allocation strategies by investors have been complicated by the emergence of real assets, in particular the projected capital needed for infrastructure development and the new and somewhat unfamiliar risks that these diverse investments present. For both users and investors, the importance of real assets will require new competencies, the implications of real asset performance can be significant and decisions around capital allocation to real assets will be important to long-term success.

Emerging Trends in Real Estate®
The Global Outlook for 2016

The Emerging Trends in Real Estate® series is one of the key indicators of investor sentiment, and is based on surveys and interviews with the most senior property professionals in the United States and Canada, Europe and Asia Pacific.

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As in previous years, we have drawn together these regional insights for the global report, highlighting the investment and development trends most likely to shape real estate markets in the year ahead.

With such a rich resource of expertise and experience at hand, the research shines a light on new ideas and thinking that will have a longer term impact on the real estate sector.

In the global outlook for 2016 we examine the changing nature and target of capital flows from a country-level approach to investment in favour of a highly selective strategy for cities, and not just the usual gateways but the more dynamic second tier cities.

The outlook for the US

The US real estate industry's traditional focus on big cities and large employers is shifting with small businesses emerging as the growth engine for the economy, and as secondary markets move into view.

It is clear that investors are looking beyond the traditional 'big six' US markets and favouring cities with better growth opportunities but also, as one broker with a large national office practice points out: "It is an extremely competitive market for placing capital."

That competition is driving money more and more into a discovery process – a process many describe using the term 'granularity'. Drilling down into markets and submarkets, working with smaller assets within the larger markets, specialised property types – these are all examples of the search to identify thriving niche opportunities.

There are also signs of a shift towards shorter-term horizons in the institutional space, a telling indication that active management is a growing trend following the Federal Reserve's increase in interest rates in December 2015 and some concerns over the US economy since then. "We are trying not to get into long-term investments. Instead, we are looking for investments where the capital returns sooner. The average life of investments should be three to five years," says one pension manager interviewee for *Emerging Trends in Real Estate® United States and Canada, 2016*.

Another interviewee warns: "In an increasingly volatile environment, whether it's weather or it's political instability and terrorism, pooling and sharing of risk is an important way to deal with uncertainty. That costs more. It's going to be an added cost of doing business, but I think it's more important than ever."

With such external factors influencing investor sentiment, this could be a pivotal year for US real estate. The concept of 'path dependence' suggests that the movement to secondary markets together with a greater attention to value-add assets, and a still reasonable expectation of continuing US economic expansion, advantages real estate over other investments in the US and abroad.

This is where the size, depth, and diversity of US real estate markets are of importance. The varying equity sources have distinct capacities, motivations, return requirements, and appetite for risk. It is not as though there is a single ocean of equity capital to be deployed, but instead there are streams of capital flowing to the markets.

The recovery of transaction volumes and pricing during 2015 to pre–financial crisis levels, especially in the gateway markets, is not prima facie evidence of a bubble. Much is different from a decade ago, not least the reduction in the amount of leverage in the market, and both the real estate and banking industries have been assiduous in limiting that risk.

Nevertheless, it is difficult to be entirely sunny when 64% of the survey respondents describe the market as oversupplied with equity capital, and 34% believe that equity underwriting standards will become less rigorous in 2016.

As investors seek to balance capital conservation with capital growth, it will be harder to characterise investors as exclusively core, value-add, or opportunistic. Rather, the providers and the intermediaries of real estate capital are looking at the entire spectrum, moving deeper into the geography and the property-type mix available in the US.

For 2016 and the remainder of this decade, it seems safe to say that the amassing of capital oriented to US real estate will continue, but at a lesser pace than it has been from 2012 to 2015.

This is an extract from Emerging Trends in Real Estate® United States and Canada, 2016. The full report can be downloaded from: www.pwc.com/emergingtrends

The outlook for Europe

Europe's real estate industry remains bullish about its business prospects this year, and though survey respondents to *Emerging Trends in Real Estate Europe 2016®* are less confident than a year ago, the belief in the region as a safe haven for global capital persists.

The sheer weight of capital bearing down on European real estate has been a key influence on sentiment, once again boosting business for many of those canvassed for this year's report. As many as 87% of them believe that global capital flows will continue to influence their investment strategy over the next five years.

Survey respondents from the recovering economies of southern Europe are the most optimistic about business prospects for 2016. By contrast, there is widespread acknowledgement that markets in northern Europe, particularly the UK, are much further advanced in the property cycle, which has led to some caution in the outlook for the coming year.

There also remains a disconnect between capital flows and fragile occupier demand in many of Europe's main markets. Though 39% of survey respondents expect the European economy to improve, there is a strong and increasing undercurrent of concern across Europe that geo-political issues, political uncertainty and economic decline elsewhere, especially China, could escalate and impact on real estate.

Last year's worries over the possible break-up of the Eurozone have been replaced by the possibility of the UK's exit from the European Union. And the wider consumer benefits of a prolonged slump in oil prices are offset by an expected withdrawal of capital by some oil-producing states struggling with budget deficits. The recent terrorist attacks in Paris and the continuing mass migration of people into Europe loom large in the minds of many interviewees and survey respondents.

Despite such event risk uncertainty, one important reason for the overall positive view of European markets is that against a backdrop of low interest rates the difference between real estate and bond yields remains compelling to many pension funds, sovereign wealth funds and private equity investors. Cross-border capital flows are expected to increase, albeit at a more measured rate than 2015. Some 59% of respondents expect an increase or significant increase in capital from the Americas, against 65% last year, while two thirds believe there will be an increase in Asian capital.

According to many survey respondents and interviewees, one of the most important consequences of the increased liquidity has been and will continue to be a shortage of assets. Over 40% of respondents expect the availability of prime assets to get worse, and there are widespread concerns that an increase in prices will continue to outstrip the rise in rents. This is particularly true of London, where there is growing sentiment that values have peaked. Across continental Europe, prices are expected to continue upwards.

With high prices for standing investments, it is evident that a significant number of those canvassed by *Emerging Trends Europe®* are confident enough to opt for development, not in a rash burst of speculation but as a measured and pragmatic way of securing returns.

Though real estate debt is plentiful in most European markets, there is no sign of lenders loosening their criteria and re-introducing undue risk into the system, especially with development finance.

When prime property looks expensive, relatively high yielding alternative asset classes also start to look attractive and European real estate is at the tipping point. Healthcare, hotels, student accommodation and data centres are all expected to outperform core property. As many as 41% of survey respondents are considering investing in alternative sectors compared with 28% last year.

This is not simply a chase for yield but an acknowledgement that many of these sectors will benefit from urbanisation and long-term demographic trends.

This is an extract from Emerging Trends in Real Estate® Europe, 2016. The full report can be downloaded from: www.pwc.com/etreeurope

The outlook for Asia-Pacific

As the bull market in Asian real estate enters its seventh year, both pricing and yields continue to tighten across most markets, creating a feel-good factor for many fund managers as they look to sell assets purchased in the wake of the global financial crisis.

While that strategy for such assets has proved profitable, the outlook for more recent purchases seems less certain. Regional economies are generally weak, exports are down, and currencies are depreciating. On top of that, today's ultra-compressed yields have taken prices to rarefied levels, suggesting we may be approaching a cyclical peak.

Investors are still seeking acquisitions although as one interviewee for *Emerging Trends in Real Estate®* Asia Pacific, 2016 points out: "It's a difficult environment in which to deploy capital. There's no low-hanging fruit. There are no particularly obvious trades."

The growing preference among investors for core assets has been a consistent theme in Asian real estate for the last several years, with predictable consequences. As one investor says, "The challenge on the core side is that there are more people interested, but there's not a lot of stock." This competition for deals among so many well-capitalised players is one of the major factors adding to ongoing cap-rate compression.

One reason behind the enduring demand for core is Asia's changing mix of investors. With real estate in the West offering arguably better risk-adjusted returns, the flow of private equity to the region is probably not as strong as it might be. Institutional and sovereign capital, however, continues to pour in from a variety of sources, creating disproportionately high demand for core buildings. Much of this newly arrived capital hails from the Middle East, including Qatar and Abu Dhabi, with more coming from Europe, in particular Norway and the Netherlands.

Demand for defensive assets has also seen such investors crowding into gateway cities because, as one fund manager puts it: "As soon as you start going off piste into exotic sectors or peripheral markets, you're asking for trouble. From an evidence perspective, if you look back at all of our deals, even if you have to overpay for an asset in the middle of Shanghai, it's better than trying to be clever and get something cheap in Nantong."

The emergence of so many institutions in Asian markets has changed the investing dynamic in other ways. Investments tend to be longer-term – in the case of institutional buyers, 10 to 20 years. And deals are getting bigger, not least because the amount of new capital in circulation has outstripped the stock of assets available to buy. As a result, "a lot of the big investors are now very focused on platform or partnership-style investing", invariably favouring high-value deals involving a big local developer.

Equally important, there continue to be large increases in allocations of capital coming from Asian sovereign wealth funds – especially China – as well as from institutional sources, such as regionally- based pension funds and insurance companies.

To an extent, this simply reflects increasing amounts of capital piling up on the sidelines of newly enriched Asian economies. Beyond that, however, it also reflects a changing regulatory environment where authorities recognise that defensive investments in local bond markets or other local assets are not providing good enough returns, and may also be actively distorting local markets. This has been the inspiration for economies such as South Korea and Taiwan to allow or force pension funds and/or local insurance companies to begin investing abroad.

Indeed, the other big story in terms of regional movement of capital has been the ongoing migration of money from Asian markets into real estate assets elsewhere in the world, as both institutions and private investors seek more diversification and higher profits.

Cash outflows from Asia began around two years ago but the volume today is greater than ever, and shows no sign of easing. As one fund manager says, "Outgoing capital is one of the biggest stories in our industry, that we're experiencing year-by-year. Over five years, it's going to be massively crazy."

This is an extract from Emerging Trends in Real Estate® Asia Pacific, 2016. The full report can be downloaded from: www.pwc.com/emergingtrends

Real Estate Monetisation Strategies: Emerging trends

In an effort to realise untapped value for shareholders, many real estate-heavy companies are looking to monetise their real estate assets to fund core operations and expansion plans. Traditional real estate monetisation methodologies include non-recourse financing, sale-leaseback transactions and, more recently, REIT conversions/ spin-offs.

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Despite the fact that real estate may make up the most significant portion of a company's assets, operating costs or strategic value drivers, the existing corporate real estate structures currently used by many were either initially designed to support a very different operational structure than needed today or motivated by financing, accounting or tax considerations that are no longer relevant. Furthermore, other factors are on the horizon – such as the proposed changes in US lease accounting – that may affect the way many companies think about their real estate operating strategies. Real estate also plays a key part in long-term corporate sustainability.

In many organisations, the corporate real estate department is viewed as more of an administrative function or cost centre, instead of as a driver of strategic or competitive advantage. Also often overlooked is the fact that market shifts frequently result in significant rises in real estate values – especially for companies that have built and developed a portfolio of assets over a long period of time or through substantial acquisitions.

Unfortunately, there is no one-size-fits-all answer to how companies can either realise or create enhanced real estate value. The right answer for one company may be completely different for another. Optimal decisions around real estate strategy are affected by a large number of factors, including the perceived need to control particular assets, operational flexibility, the availability of alternatives, common industry practices, tax and regulatory impacts, and the expectations of management and investors. Therefore, carefully considering a company's unique circumstances is crucial when deciding on the most effective way to capitalise on real estate's true value. Even within the same company, different transaction types may be more appropriate for different departmental needs, making it necessary to apply several different methodologies.

Today, many companies are evaluating the feasibility, benefits, costs and other factors associated with potential real estate monetisation strategies. While some of these strategic evaluation initiatives have been spearheaded by company management, others have emerged as a result of pressure from activist shareholder groups and investment bankers.

Rise of activist investors and real estate-driven M&A

Activist investors are increasingly focusing on the value of a company's real estate. Why now? These types of monetisation transactions are not new – they have been employed by many in the past.

Since World War II, owning real estate has generally been viewed as favourable, but now, we seem to be in an aggressive cycle of trimming real estate ownership in favour of selling and leasing back. Who wins and who loses? In many cases, everyone wins!

Many private equity firms that acquire companies with large amounts of owned real estate use sale/leaseback structures as a means to finance their acquisitions, but they are not the only ones thinking about monetisation. As companies monitor and respond to market trends, an increasingly wide variety of transactions and restructurings have emerged. Also increasing is the pressure companies feel directly from corporate activist investors or as a result of takeover activity. A common focus of many of these investors is identifying companies they perceive have hidden value that can be unlocked through structural changes or divestitures, such as a spin-off. Given the volatility of real estate valuations, changing dynamics in their use and the market's quest for yield, real estate is a common focus of these activist investors and acquirers.

These activists may espouse transactions where underlying financial theory suggests that total value can be created, through financial surgery, to separate the bond-like elements of a company – such as real estate that can pay a stable yield from rental income – from the company's more cyclical operations. As a result, the operations of the company can be free of the capital intensity often seen in the real estate industry and offer higher equity returns. Their premise appears to be asset light. Companies see their stock prices increase because capital can be invested into activities with higher returns on investment, rather than weighing down the balance sheet with real estate capital investments. The real estate could also trade in a separate vehicle or be sold to realise its benefits.

Other drivers of activist pressure on companies are the beliefs that: a company's corporate structure may not be the most efficient way to hold the real estate, assets are under-utilised and would be more valuable if repurposed or split into separate parts, or a portion of the business is capital-starved and needs to be separated to reach its true potential.

Activist pressure on management increases even more when a competitor demonstrates the potential value that can be derived from a real estate monetisation transaction. When investors and shareholders see how successful various real estate monetisation methodologies are for others, they want to know why their organisation is not doing this too.

As industry participants continue to discover how broad the category of real estate truly is, the number of methods used for realising the value of this real estate also continues to expand. Often, organisations attempt to share the same success as competitors by mimicking their real estate monetisation strategies. Over the course of several years, these transactions/structures can become normal operating procedure for an entire sector. For example, over the past 10 to 15 years, we have seen entire industry business models migrate to real estate structures, such as REIT-through-REIT conversions or the consummation of REIT spin-offs. This occurrence is even more pronounced in so-called non-traditional real estate transactions, such as timber, cell towers, billboards and, more recently, power transmission and telecommunications infrastructure.

Finally, the value of an organisation's real estate may not be leveraged to its full potential or highest and best use. This is often difficult for management to address or even accept – especially for companies that are otherwise performing well. For example, the value of a specific property, used by the company as a discount retail operation, may be worth more used by a high-end retailer, sub-divided and used by multiple users, or converted to another use – such as a hotel. In other cases, for companies in the midst of an operational transition or with financial difficulties, it is clear to management that real estate must be addressed as a part of broad, strategic change. Perhaps the most difficult situation for management to acknowledge – and the most significant source of activist pressure – is in cases where the value of real estate is higher than the value of an entire company.

Activist investors: Taking a pre-emptive approach

Activist investors actively study many company operations in an effort to identify perceived inefficiencies that indicate the potential opportunity for outsized returns – one of which is the potential to unlock the hidden value of real estate holdings.

Before an activist investor becomes a shareholder and raises this issue, companies should analyse their real estate holdings, evaluate whether or not an opportunity to unlock tied-up real estate exists, consider tax efficiencies and develop a pre-emptive response to future anticipated questions.

In order to make this assessment, management and the board should:

- **Be proactive.** Don't wait until a shareholder activist takes a position in your company. Pre-emptive measures can prevent the need for reactive, defensive actions.
- **Be strategic.** Assess if your company owns or controls real estate or qualifying real estate assets that present valuable monetisation opportunities, drive tax efficiencies or provide cost-effective ways to redeploy capital that is more strategically aligned with business needs. These are factors that shareholder activists are likely to focus on. Use an integrated approach to conduct an analysis and develop responses that align with the overall objectives of the company and its shareholders.

This is an extract from Unlocking shareholder value: Real estate monetisation strategies. The full paper can be downloaded from: http://www.pwc.com/us/en/asset-management/real-estate/publications/assets/pwc-real-estate-monetization-strategies.pdf

Cities of Opportunity

Taking the pulse of 30 cities at the heart of the world's economy and culture.

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The sixth edition of Cities of Opportunity continues an investigation that began in 2007 in an effort to help the world's greatest cities understand what policies and approaches work best for people and economies in a rapidly urbanising world.

This year, we've organised our 10 indicators into three families that reflect the fundamentals of a well-balanced city: forward-looking tools such as education and technology; quality of life; making cities healthy, happy, and sustainable; and the ability to pay the bills for it all. However, reorganisation does not cut down on the observations to be gleaned from the 59 overall data points on our 30 cities. Here are some of the most interesting findings from Cities of Opportunity 6.

London claims #1 by a clear margin, with New York and Singapore close behind

Although London takes the top spot in our rankings for the first time, it was evident from our last report that it was coming up quickly on New York, finishing a hair's breadth (less than a tenth of 1%) behind New York in our last edition in a virtual tie. This year, London clearly takes the lead and is also the only city to finish first in three indicators.

New York, on the other hand, while missing out on the top rank in all indicators, shows continuing superior consistency across most of the indicator categories. The other strong contender is Singapore. It scores an unexpectedly robust third place just behind New York (four spots ahead of its previous ranking) and finishes first in two indicators. Overall, nine cities in the top 10 in our last report remain in the top 10 in this one, albeit with some natural movement up or down.

Sydney surprises, but Stockholm remains a constant contender

The only city that was not in the top 10 in our last report but climbs into that select group in this one is Sydney, which also ranks first in two indicators measuring quality of life, sustainability and the natural environment, as well as demographics and liveability. Stockholm also finishes first in two quality-of-life indicators (tying Sydney in one of them) and seventh overall, just behind Paris. Two other cities renowned for their exceptional quality of life, Toronto and San Francisco, rank fourth and fifth, respectively, confirming their reputation.

Nobody's perfect...but the top cities are very good at a lot of things

The most consistent finding in our current report, echoing previous results, is what we called in Cities of Opportunity 5 "a virtuous circle of social and economic strengths". When "great quality-of-life factors…are balanced with strong businesses and solid infrastructure," the resulting formula – or, better yet, network of reinforcing advantages and assets – creates and sustains resilient cities with high standards of living. Of the cities ranked in the top 10 overall this year, Sydney is the only one that doesn't finish in the top 10 in at least half of our indicators (it makes the top 10 in four out of 10). Most cities score in the top 10 in the majority of indicators, which proves just how comprehensively they attend to most of the factors that enhance (or diminish) urban life and how they actively sweat the details on virtually every aspect of urban policy and organisation.

It takes a city to make a citizen and vice versa

Our other major finding is that it really doesn't matter what size a city is as long as it's a city. Every one of our indicators has both small and large cities in the top 10, usually in a good mix. Even our economic clout and city gateway indicators, which are intuitively associated with the larger (more 'prominent') cities, have several smaller cities in the top ranks. More to the point, all four quality-of-life indicators have a majority of smaller cities in the top 10. This last fact is critical because it also illustrates the relationship between cities and their people. After a certain level of economic success, a city's residents demand more from municipal administrations. In fact, economic success normally is seen as (and historically has been) the basis for those improvements in urban life that lead to a city's infrastructural development, from schools, hospitals, and police to roads, buses, and metros to libraries, parks, and environmental sustainability. While it might be the simple demographic fact of population density and expansion that turns towns into cities, it is the self-consciousness of citizens – and their proud participation in the growth of their respective cities – that urges cities to improve the quality of life of the men and women who live in them.

Parlez-vous intellectual capital?

What is perhaps most impressive about Paris's #1 ranking in intellectual capital and innovation this year is not so much that it finishes first; after all, it only beats out London by just under 2% of the final top score. What is most striking is the group that Paris rises above. Look at the top 10 again: Seven of the cities are English-speaking, and an eighth, Stockholm, is a city in which English is almost a second language (and often a first one in various fields of technology). The only other city in which the natural language of intellectual investigation and research is not English is #10 Tokyo. This is a resonant achievement that plainly refutes the notion that non-English-speakers can't compete, intellectually or technologically, within the context of today's globalisation of English. It also encourages cities such as Berlin and Seoul – which just fall out of the top 10 – not to mention Shanghai and Beijing or São Paulo and Rio de Janeiro. Clearly, these results demonstrate the value of education and innovation in themselves – as opposed to the language in which they are conducted – precisely because, as this section says, they are the most important tools of a changing world.

Think locally, connect globally…

Technology's obvious capacity to level the playing field between developed and developing cities (as well as East and West) is confirmed by the technology readiness indicator, in which Seoul ties London for first place. Much more than in our previous indicator, we see a geographical and cultural dispersion among the top 10 here that confirms technology's innately disruptive ability to upend traditional patterns of economic sway and competitiveness.

…but connect, in any case

The city gateway indicator exemplifies the truth that, year after year, the most successful cities are those tenacious, persistent ones that persevere through good times and bad regardless of whatever is thrown at them economically, socially, politically, or environmentally. And a critical reason they survive so well is because they've always been open to the world. London, ranked first in this indicator, is, of course, an icon of global trade and commerce. But if we look at the other nine cities in the top 10, we immediately notice that six are ports – and almost all of them famous ones. One (Paris) is located on a celebrated commercial waterway, and only two, Beijing and Madrid, are inland, although both have rivers running through them (and, in Beijing's case, several). The city gateway indicator means a number of things, but, before and beyond everything else, it means exactly what it says: city gateway. For a city to be looked upon by the world as a model, a symbol, or even a haven, it has itself to be continually looking to the world and to be open to it for that fundamental exchange of ideas, people, and commerce that, in the past as well as in the future, has always defined a transnational city.

Singapore moves people – and houses them as well

Singapore dominates among the cities of opportunity in transportation and infrastructure. It ranked first by a small margin in our previous report; it ranks first by a much larger margin in this one. Moreover, the difference in score between Singapore and #2 Toronto is great (even more than that between the Canadian city and #15 Mexico City). Singapore clearly understands the fundamental role of infrastructure in a city's development and in its contribution to the well-being of its citizens. It is particularly telling that Singapore ranks first in the critical variable that measures the availability, cost, and quality of housing (which shows a strong, positive correlation with the overall social and economic health of a city). The other noteworthy result in this indicator is the exceptionally wide range of cities that make up the top 10. Buenos Aires and Seoul tie for third place, followed by Paris, London, and Madrid (tied, again, for sixth place), Stockholm, Berlin, and Dubai. This is, to say the least, an unusual mix of cities, which illustrates that good infrastructure is not necessarily a product just of economic clout or global prominence (as measured by our city gateway indicator).

Whether or not small is beautiful, it's decidedly healthy and safe

Although we changed the variables slightly in this edition, the results in health, safety, and security have hardly changed from our last report. Stockholm finishes first, with a marginal difference, as it did previously. Sydney and Toronto tie for second, currently with a tiny difference between them, while they finished #2 (Toronto) and #3 (Sydney) in our previous report. In the end, nine of the cities in the top 10 in the last report remain in the top 10 in this one. What is perhaps more interesting than the actual ranking of the cities is their size. The top five cities in this indicator have an average population of just under 2.5 million. And even if we add the populations of the top 10 – which includes London, Singapore, and New York – we're still left with an average just about 1.4 million larger. The result is no less compelling for being so obvious: Larger cities, with larger populations, must strive harder, and expend more resources, to secure the health and safety of their residents.

Where health and safety lead, sustainability follows

Seven of the cities in the top 10 in the previous indicator are also the first seven cities in the top 10 in sustainability and the natural environment. And, again, if we average out the populations of these 10 cities, it comes to roughly 3.61 million people – and that's only because of one city, Moscow, whose population is almost 12 million. If we delete Moscow from the average of the other nine cities, the figure drops almost by a million to 2.69 million. Clearly, urban sustainability means just that: sustainable urban magnitudes.

Sydney finishes first in liveability, but London beckons to would-be expats

Demographics and liveability rounds out the quality-of-life section of our study. It is also the indicator that benefits from PwC's global staff survey of 15,000 professionals that supplements this year's Cities of Opportunity. Two variables are based on survey results, one of which measures responses to the question, 'Of the cities in Cities of Opportunity (other than your own), which are the top three in which you'd most like to work?' London places first in that answer. But Sydney finishes a whisker ahead of London in the overall demographics and liveability ranking and places third as most desired city for relocation. As for the other most desired cities for relocation, New York comes in a close second to London (41% to 47%, respectively) – showing professionals are powerfully attracted to the energy and opportunity of the world's most competitive cities. Sydney, however, comes in third most desirable at just under 28% with San Francisco following close behind at 26% – suggesting that good quality of life has a powerful pull, perhaps made even more seductive by beautiful beaches and sophisticated culture.

When it comes to economic success, be strong but also be competitive

The final section of our report includes its three economic indicators. Together, they point to the synergies needed if economic growth is to lead to permanent economic strength. It's not surprising that the top five cities in our first indicator, economic clout, are London, Beijing, New York, Paris, and Shanghai. They are all legendary cities that mirror the economic history of the urban world during the last couple of hundred years.

Not one city in the top five in our second indicator, cost, is in the top five in economic clout, however. But the three cities in the top 10 in cost and economic clout are also in the top 10 in our third indicator, ease of doing business. In addition to their success in all three indicators, these three mature cities – New York, San Francisco, and Toronto – also rebut the notion that developed cities can't compete on costs. Finally, given that six of the cities in the top 10 in economic clout are also in the top 10 in ease of doing business, our findings validate the obvious expectation that a city in which it is easy to do business will actually do so successfully.

The texture of city life emerges beyond the numbers

While quantitative results tell one sort of story, the human experience of leaders and thinkers at any moment in time adds a different layer of insight. This year, those we spoke with mention technology often but quickly bridge to innovation, creativity, and the need to be one with the spirit of a great city. It seems, to borrow from Dylan Thomas, "the force that through the green fuse drives the flower," drives our urban age.

Roll over Leif Eriksson and tell Valhalla the news!

Accompanied to New York by a horde of Nordic software developers, if not bloodthirsty Vikings, Stockholm's vice mayor for entrepreneurism, Ulla Hamilton, told us her small, sustainable city with a powerful broadband network has been "lucky in the area [of entrepreneurism] for several reasons. We have a very interesting mix of life science companies, information and communications technology companies, clean tech companies, and the entertainment industries....That creates an innovative climate. Also, Swedes are very interested in solving problems, and it has become fashionable to start your own company." One of Stockholm's most successful start-ups, DICE, even brought us Battlefield 1, 2, 3, and 4. It seems the old Viking spirit is not dimmed by a pair of jeans or a business suit.

Change those bad behaviours or else!

At New York University's Centre for Urban Science and Progress (CUSP), the hope of urban informatics is being explored everywhere from traffic to health and safety and energy management. But according to CUSP's director Steven Koonin, big data isn't so much a driving force to manage cities but a tool to help people see and improve urban patterns. Koonin explains "science with a social dimension" holds the promise of urban informatics to make city life better, but it's less a technological "fix" than a way to understand our own collective behaviour and, with the help of behavioural economics, build better, more logical approaches to city dynamics.

In other words, individually, it may be hard to start healthy eating looking straight at a bowl of vanilla ice cream, but we may be able to push collective behaviours in the right direction guided by the power of information and the need to serve the common good in massive, densely populated cities where we all share in success.

Shanghai surprise: A huge city manages breathtaking growth with an eye on its heritage

"A city is a place for people to live, so you need to adapt and make use of heritage," explains Wang Lin, director of historic conservation in Shanghai. Her city's explosion to 14.3 million permanent residents (nearly 24 million if migrants are included) may not have begun with as big an eye on Shanghai's history, but, today, Lin says "the first important thing is we need to be sustainable. We need to pay more attention to the quality of the city. We need to keep a balance between the environment and the economy. And equality is very important." Careful management of the great city's past – its 12 historic conservation areas – weaves right into the fabric of Shanghai's future. Lin's focus on Shanghai is complemented by Ron van Oers of the World Heritage Institute of Training and Research for Asia and the Pacific and previously UNESCO's World Heritage Cities Programme, who offers a global perspective.

The Prado unveils an Enlightenment approach to crisis management

Despite 60% government funding cuts to Madrid's splendid museum, Prado director Miguel Zugaza tells us "our reaction was to actually invigorate our activities, do more that would appeal to more visitors." And his approach is working. Extended hours and notable shows are attracting more visitors from the city, the nation and the world. In fact, Zugaza says "one of the ways we will exit the crisis in our country will come from the cultural sector. Spain has a very important asset in its cultural heritage....It generates excellent employment. It generates appealing activities for tourists. It enriches the economic fabric around us. And it's important that politicians and society know this....Every 1,000 visitors who come to the Prado generate one job in Madrid."

A writer embraces the "messy heterogeneity" that defines a great city

Suketu Mehta is author of Maximum City: Bombay Lost and Found, a forthcoming book on New York, as well as many articles on the favelas of Brazil. Here he pauses amid travels and teaching to explain the lure of urban life from many angles. "A young person in an Indian village moves to Bombay not just to make more money but because the city signifies freedom. It's also a place where your caste doesn't matter as much." As for rich cities like London, he warns "it doesn't matter how welcoming the city is if you can't find an apartment there for a reasonable price, because you won't be part of the city at all. That's dangerous to the city's well-being. You need the great middle class – good people who will keep faith in the city during a downturn."

Yikes! Robots advance... Are we innovating ourselves out of a day job?

Erik Brynjolfsson, director of MIT's Centre for Digital Business and author of The Second Machine Age, keeps his finger on the pulse of economic and technological change. Nowhere is 'creative destruction' more potentially dramatic than the rise of smart machines and their ability to do our jobs. How do cities and their citizens avoid future unemployment and potential social unrest? Brynjolfsson says a number of jobs will be even more in demand: "One is creative work. The second is interpersonal interactions. And those are areas where cities can excel. They can stoke creativity by bringing people together...They're attracted partly by the culture, partly by proximity to other creative people. These people will be even more in demand in the next ten years, and the successful cities will be the ones that cultivate and attract them."

How the cities rank

Rank	City	Intellectual capital and innovation	Technology readiness	City gateway	Transportation and infrastructure
30	London	200	107	172	112
29	New York	186	98	137	95
28	Singapore	148	91	153	139
27	Toronto	190	73	98	118
26	San Francisco	195	96	109	89
25	Paris	204	75	143	114
24	Stockholm	192	105	96	111
23	Hong Kong	158	100	151	99
22	Sydney	181	71	119	80
21	Chicago	174	86	93	91
20	Berlin	162	74	113	107
19	Los Angeles	182	93	105	74
18	Tokyo	172	84	151	104
17	Seoul	161	107	125	115
16	Madrid	121	60	148	112
15	Dubai	98	57	141	105
14	Kuala Lumpur	75	62	131	103
13	Milan	117	58	93	91
12	Beijing	96	44	156	90
11	Shanghai	117	40	137	94
10	Moscow	106	52	97	101
9	Mexico City	94	28	88	98
8	Johannesburg	72	33	94	43
7	Buenos Aires	73	44	68	115
6	Istanbul	68	28	111	70
5	São Paulo	61	23	76	87
4	Rio de Janeiro	55	19	51	83
3	Mumbai	35	35	57	87
2	Jakarta	30	32	58	79
1	Nairobi	30	14	34	31

Health, safety, and security	Sustainability and the natural environment	Demographics and livability	Economic clout	Ease of doing business	Cost	Score
112	79	141	118	173	76	1,290
110	89	119	114	194	93	1,235
112	71	133	95	219	69	1,230
130	106	123	90	182	105	1,215
113	112	136	92	167	102	1,211
108	116	128	107	142	59	1,196
132	121	126	77	158	73	1,191
86	63	133	91	197	78	1,156
130	121	142	82	146	81	1,153
112	96	119	78	167	117	1,133
128	116	135	64	134	95	1,128
100	96	98	78	172	120	1,118
105	69	96	88	151	66	1,086
79	61	67	84	160	84	1,043
98	91	101	77	124	83	1,015
91	37	108	73	100	103	913
53	55	80	76	156	94	885
103	84	91	81	98	64	880
42	63	70	115	97	40	813
59	46	85	105	72	53	808
32	96	77	86	77	57	781
52	71	63	60	126	67	747
51	57	79	53	108	108	698
58	82	65	47	51	61	664
35	61	59	59	79	75	645
37	64	59	61	79	51	598
33	70	65	58	71	42	547
30	57	25	73	66	58	523
25	42	35	50	70	75	496
15	74	64	36	62	79	439

Each city's score (here 1,290 to 439) is the sum of its rankings across variables. The city order from 30 to 1 is based on these scores.

- High
- Medium
- Low
- Highest rank in each indicator

This is an extract from Cities of Opportunity 6. The full report can be downloaded from: https://www.pwc.com/us/en/cities-of-opportunity.html

Building Better Cities:
Competitive, sustainable and liveable metropolises in APEC (and how to become one)

Two hundred and ten million people. That's the aggregate population of the 28 urban centres covered in our first-ever Asia-Pacific Economic Cooperation (APEC) city study. Two hundred and ten million people who are looking for work, for a safe home, for food, water, and care.

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Two hundred and ten million people who might hope for even more: maybe a more responsive government, public transport, and clean air. Or, perhaps, an airport with regular connections to the rest of the world or rapid-fire online access to global knowledge. They're also expecting that their home city is working to provide such benefits equitably – that each and every resident has the possibility of playing in parkland with their children or finding care in a well-functioning hospital. They might aspire to intellectual stimulation and a quick route to beauty.

How do 210 million people create a home like this for themselves? And can that welcome be extended to all the home's visitors, and to its businesses and investors? Is it possible? We looked at just that. Our Building Better Cities study, which this article introduces, ranks 28 APEC cities – representing all APEC's 21 economies – according to their relative performance across 39 indicators measuring, quite simply, a city's liveability, sustainability, and competitiveness.

Why this study now?

APEC has experienced rapid urbanisation in the last couple of decades. Just consider, for instance, that in 2014 Malaysia's population was 74% urbanised, up from 50% in 1990, adding 13 million urbanites; and that Thailand's urban population rose to 48% from 29% over the same period.[1] These numbers clearly have worldwide ramifications, since APEC's area, with 39% of the world's population, constitutes 46% of global trade and 57% of the GDP[2].

In this study, we focus on the role urban centres play in the context of APEC's economic and social growth. We also explore their growing influence outside their city borders. If Lima represents 70% of Peru's GDP, and if Los Angeles boasts a GDP almost 1.5 times greater than Saudi Arabia, then some cities essentially carry the opportunities and responsibilities of nations[3]. APEC cities, then, will be likely to continue to become more influential, forming deeper economic ties to other cities – and even to other national economies. Yet, we were surprised, when creating this report, how few formal mechanisms exist to share innovative ideas (and products and services) amongst cities. And city officials in the region were relieved to have an opportunity to exchange solutions and forge connections at an APEC City Summit held in Cebu, Philippines, in September 2015.

APEC's idea to begin studying cities as a separate agenda item is wise and welcome. City mayors know they need models. They often want a more fluid process than national government and infrastructure offers; they fear that rapidly evolving technology developments will make large tech bets outmoded overnight; and they contend with stretched municipal budgets. So they want to learn from each other, whether it be how to install a bike-sharing programme or gradually grow an entire new business district; how to protect relics of their past or build a highway for flood relief. Formal exchanges could be put in place to speed the process. Our report aims to push that sort of dialogue along.

1 The World Bank http://wdi.worldbank.org/table/3.12#

2 2015 Meeting of APEC Ministers Responsible for Trade, Boracay, the Philippines; May 24, 2015;

3 For Los Angeles statistic: Mathew Boesler, 12 American Cities That Rank Among the Biggest Economies in the World, Business Insider, July 20, 2012; http://www.businessinsider.com/12-american-cities-that-rank-among-thebiggest- economies-in-the-world-2012-7?op=1; For P eru: APEC Cities – Urbanization and Economic Sustainability in Latin America: Chile, Mexico, Peru http://mddb.apec.org/Documents/2014/SOM/PD/14_som_pd_006.pdf, p 6

So which city topped our list?

City	Culture & social health	Connectivity	Health and welfare	Environmental sustainability	Economics
1 Toronto	28	21	26	27	21
2 Vancouver	25	20	25	28	20
3 Singapore	20	28	24	20	27
4 Tokyo	24	26	28	17	26
5 Seattle	23	17	21	26	23
6 Auckland	26	14	22	25	18
7 Seoul	22	23	19	24	12
8 Melbourne	27	16	23	23	15
9 Los Angeles	22	13	20	22	24
10 Osaka	20	25	27	10	20
11 Hong Kong	17	27	18	11	28
12 Taipei	11	15	17	21	23
13 Shanghai	14	24	16	19	18
14 Beijing	10	22	15	15	16
15 Kuala Lumpur	13	19	11	12	25
16 Bangkok	18	18	8	8	13
17 Santiago	16	11	12	4	14
18 Mexico City	6	11	10	16	10
19 Novosibirsk	7	12	13	18	2
20 Chiang Mai	10	5	9	14	4
21 Bandar Seri Begawan	2	7	14	13	3
22 Manila	15	9	2	3	7
23 Lima	10	6	6	1	11
24 Ho Chi Minh City	5	8	7	2	9
25 Jakarta	4	4	5	7	8
26 Cebu	12	2	3	6	6
27 Surabaya	3	1	5	5	5
28 Port Moresby	1	3	1	9	1

High Medium Low Highest rank in each variable

How we ranked the cities

Our guiding principle in choosing these 28 cities was to have at least one from each of the 21 APEC economies. All of the chosen cities are vital geographic and economic gateways to their respective markets, as well as to the wider APEC region. The metropolises were then analysed according to 39 different indicators grouped into five categories which we believe begin to inscribe urban health.

1. **Culture and social health:** We assess a city's cultural character, such as its cultural vibrancy and how well educated its citizens are. We also measure other strands binding the social fabric, including income equality, tolerance and inclusion, and the openness of government and commerce.

2. **Connectivity:** We consider indicators of physical connectivity – that is, how cities accommodate the movement of people within (and in and out) of their environs – including mass transit, road congestion, and airport connectivity. We also look at the movement of information, how a city builds and promotes equitable digital connectivity, namely via accessible broadband and mobile communications.

3. **Health and welfare:** We look at how well a city is tending to the health and well-being of its citizens through conventional indicators such as physician density and healthcare system performance. But we also consider other factors critical to the well-being of residents, including crime levels and food security.

4. **Environmental sustainability:** We rank cities' relative sustainability in two ways. First, we measure cities' vulnerability to environmental risks such as natural disasters and water shortages. We also include indicators reflecting a city's performance on environmental protection – such as air pollution, waste management and renewable energy generation.

5. **Economics:** We examine urban economies as if they were national economies, looking at their GDP growth, household consumption, and foreign direct investment. But we also consider other key aspects of economic health including incidence of economic crime, ease of doing business, and cost of living.

The top city managed to gain its position by charting strongly in city basics, compromisers and differentiators. It is mid-sized, but has successfully navigated the challenges of a diverse population, 46% of which is foreign-born[4]. The city is Toronto. What's interesting is that Toronto was number one in just one of our five categories – but did well across all five (although even that city has room for improvement in such indicators as connectivity, middle-class growth, and most significantly, cost of living). Number two (Vancouver) and number three (Singapore) also showed balanced performance.

From Tokyo (ranked four) on down the list, we begin to see less consistent performance. In Tokyo's case, it was relatively lower in just one pillar – environmental sustainability – due largely to its vulnerability to natural disaster; it also had middling showings on recycling and water available for industrial use.

All cities' rankings, though, need to be approached with added perspective. For instance, it's important to consider that Tokyo's population is twice as big as Toronto's. For cities of its scale, then, Tokyo is a best performer. So, if it were to seek areas of improvement, it might look to a city closer to its peer group – Seoul, for example, for recycling ideas that would keep it climbing.

Similarly, if we break the rankings by population, high-performing Auckland and Vancouver could very well have lessons to teach each other in the areas in which they excel – Auckland on its political environment, and Vancouver on its handling of air, water, and waste.

If we look to cities midway through the rankings, a few suggest promise for improvement. Like Toronto, Chiang Mai gets its best scores in culture and social health and environmental sustainability, albeit at a lower level of development. Its weakest areas are Connectivity and Economics but those are linked – shoring up its transport and digital infrastructure would surely have a multiplier effect on other areas, especially Economics. In this way, we see a great interconnectedness among our five categories, and encourage readers to appreciate our rankings with that in mind.

This is an extract from Building Better Cities: Competitive, sustainable and liveable metropolises in APEC (and how to become one). The full study can be downloaded from: www.pwc.com/apec

4 Statistics Canada. 2011 Immigration and Ethnocultural Diversity in Canada (public-use microdata file). Statistics Canada (producer); http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-010-x/99-010-x2011001-eng.cfm

Planning For The Future: The integration of organisational and real estate strategies, and the impact on investors

We are all aware that organisations, whatever industry they are in, need to manage their own real estate.

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The impact of an organisation's approach to occupying real estate is felt not only by the occupier but also by its consumers, its workers and its landlords. The latter include property investors such as real estate investment trusts, banks, asset managers, insurance companies, governments, family offices and sovereign wealth funds. The development of an integrated real estate strategy can present real benefits to an occupier, while posing both opportunities and risks to investors.

To translate the impact of local and global trends into an integrated real estate strategy that is practical, functional and implementable, you need to understand how each trend is impacting on the specific organisation's industry sector and predict how to align with their real estate requirements. This article focuses on the impacts of the changing state of the retail industry on real estate; however, the principles apply to any evolving industry where market participants hold a high volume of property assets.

Industries as varied as health, banking and finance, warehousing and distribution, telecommunications, and higher education can all derive benefits from developing an integrated real estate strategy aligned with, and derived from, their evolving business strategy.

Trends in the retail and consumer industry impacting real estate strategy

The business environment for retailers has never been more complex. Consumers are developing their own approach to researching and purchasing, both online and in-store. More and more people are purchasing online instead of in-store. Single's Day – the 24-hour shopping festival in China that now dwarfs Black Friday in terms of sales – is often used as a bellwether for China's e-commerce market. This year, Alibaba's Single's Day online sales came in at US$14.3 billion, a 60% increase over 2014.

Online shopping during the 2015 Thanksgiving weekend accounted for almost 29% of sales, up 12% over 2014 and Goldman Sachs predicts that mobile commerce will account for almost half of e-commerce by 2018.

However, this is not the complete story. According to PwC's annual consumer survey, *Total Retail: Retailers and the Age of Disruption*, the physical store still remains the retail touch point for most consumers. More than 36% of our global sample goes to a physical store at least weekly. That is a significant difference compared to how often they shop weekly online via PC (20%), tablet (10%) or mobile phone (11%).

Reasons for shopping in physical stores relate to experiencing the merchandise, confirming goods are a good fit and obtaining immediate ownership. Even for goods where consumers predominantly buy online, consumers may research online but actually buy in-store – 73% of US respondents report that they research online when buying clothing, footwear, toys and health and beauty products (60% globally). Yet despite their continued use of physical stores, today's consumers want their shopping needs met in a way that minimises uncertainty and inflexibility and maximises efficiency, convenience and pleasure.

As a result of these actual and anticipated changes in consumer behaviour and the resulting challenges to retailers' economic models, PwC predicts that by 2020 many of the current models for successful retailing will have undergone significant change. Retailers will have to develop new strategies and tactics to engage the consumer in a profitable manner. Historically, the retail store model required a store to sell enough product at a sufficiently high margin per physical building to offset real estate and operating costs and deliver a successful return on investment (ROI). With new pricing mechanisms and changes in buyer behaviour, intense pressure will build on this margin structure. As a result, there will be a need for retailers to find new ways to keep stores profitable. If sales from physical store locations decline, a reduction in real estate operating costs will be key to achieving this.

What does declining sales from physical stores mean for an occupier's real estate strategy?

From a real estate perspective, PwC anticipates that retailers' strategies are likely to develop to find new real estate environments from which to engage with the consumer. Over the coming decade, the pressures of competition and the range of digital shopping solutions may force retailers to reconsider the value of their store formats. Many of today's major retailers will be transitioning from traditional, larger stores into non-traditional, typically smaller store formats. Those formats are likely to be numerous and varied to match the shifts in what, when, and where consumers want to shop, and will be supported by the deployment of technology to enhance and support consumers' shopping experience. This may include short-term formats such as pop-up stores and mobile retail trucks. Pop-up stores are currently booming in the US, with a value of US$50 billion in 2014.

Retailers will also demand greater flexibility through shorter lease terms, break clauses and options to alter their store area, despite the higher costs involved. Also, the need to create destination shopping environments will impact on occupiers' demands of investors. Occupiers will not accept a lacklustre shopper experience in the wider shopping mall, due to the need to complement their own drive to control consumers' in-store experience and spending behaviour.
We have also seen that changing store formats are forcing property-level strategy changes, with e-commerce enhancing the integration between industrial and retail real estate.

Some of the changes in retail occupier portfolios could include:

- Decreased footprint per store;
- High demand for store presence in new or growing consumer markets;
- Increase in demand for warehousing/distribution centres;
- Relocation to transport hubs or centres with good infrastructure;
- Prioritisation of shopping locations that provide additional attractions beyond shopping; and
- Flexibility in leases to allow for rapid response to changes in consumer behaviour.

These are just a few of the possible developments in occupier requirements. However, the key issue for occupiers will be how to implement these types of strategic decisions without adversely impacting on business operations and within the constraints of their existing portfolio. This is where an integrated real estate strategy adds real value.

How to develop an integrated real estate strategy?

Juggling current and future consumer trends requires regular reviews of and amendments to a retailer's business strategy. However, in the retail and many other sectors we have found that this is often not translated into property practice. In some cases, business and real estate strategies do not align or, worse still, are at odds with one another. In other cases, occupiers' existing real estate strategy fails to keep pace with the changing nature of the business, leaving them with high operating costs and vacant premises.

The approach set out in Figure 1 on the next page provides a real estate strategy that is practical, functional and implementable, responds to business and consumer demands and optimises operating costs during transition.

The benefits of an integrated real estate strategy

The benefits of adopting an integrated real estate strategy include improving and increasing market access and the organisation's operational advantage by responding to consumer demand.

Figure 1

01
Business strategy
The key to developing an integrated real estate strategy is to first understand and challenge the organisation's business strategy and operating model. This includes defining the business or service model and product mix and identifying current and future strategic and financial goals. The business strategy also establishes the configuration of the business segments and operating units, such as retail and administrative functions. The business strategy will also pick up anticipated changes in operating models, as illustrated in the examples from the retail sector.

02
Current portfolio analysis
It is then necessary to undertake a thorough analysis of the current real estate portfolio. This might include a review of: the current and future use of the properties; existing tenure type and structure; and current rents, market conditions and commercial options. Opportunities for single or portfolio-wide exit from owned/leased properties would be considered at this stage, together with a property opportunity analysis, including developments and disposals. An analysis of operating expenditure and capital expenditure projections; current and potential tax and accounting positions; and sustainability performance would also be completed.

Integrated Real Estate Strategy
Applying this understanding of business requirements, a premises and location strategy should then be developed. Here the occupier should design a location portfolio mix to meet business objectives – e.g. scale, cost efficiences, growth, consumer locations and risks. Premises requirements should be defined, and steps should also be taken to ensure ongoing optimisation of portfolio for alignment with business and financial goals.

03
Workforce management
The work undertaken in the development of an integrated real estate strategy also brings together plans for workforce management, determining workplace and workforce needs/behaviour (e.g. level of collaboration/ frequency of interaction) and infrastructure requirements and mobility standards (e.g. mobile, telecommuting).

04
Occupancy management
The preparatory work must also consider demands of occupancy management, including capacity forecasting and planning consistent with workplace standards, space/ facilities (e.g. lease, contract negotiations) and ongoing occupancy optimisation.

Workplace and retail function flexibility, increased employee productivity and an improved consumer experience can be combined with sustainable occupancy cost management, future proofing and de-risking the organisation's real estate portfolio, and allowing a rapid response to any change in the business environment.

What might these benefits mean for investors?
And what does this mean for property investors, owners of shopping malls and the like? Investors need to be aware of changes in their tenants' real estate strategies and make their own leasing and development plans accordingly, taking into account demographic differences in retail habits.

Shopping malls engage with and predict future trends to offer market-leading retail space to their tenants, while also considering new opportunities for investment areas such as warehousing and distribution and supporting infrastructure.

Investors should also be alert to new opportunities. For example, one potential result of an integrated real estate strategy is the possible spin-off of real estate assets into separate vehicles or into sale-and-leaseback or strip-income transactions. Retailers such as Toys R Us and Walmart, and corporates such as UBS, American Tower, and Iron Mountain have all sought to use their real estate holdings to gain access to cash for shareholders or investment in repositioning business. Windstream Holdings, a US telecommunications corporation, recently announced it intends to spin off its copper and fibre network into a REIT. The REIT would then lease the fibre and copper networks back to Windstream, with the income passing through to investors. And, according to the Wall Street Journal, at least eight hotel operators have announced spin-offs over the past two years, more than in the previous four years combined.

The competitive advantage
Considering the potential challenges that will emerge from new and evolving operating environments, occupiers should give careful consideration to the benefits of implementing integrated business and real estate strategies that provide a competitive advantage to their organisation.

Real Estate 2020: Building the future

Looking forward to 2020 and beyond, the real estate investment industry will find itself at the centre of rapid economic and social change, which is transforming the built environment.

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While most of these trends are already evident, there's a natural tendency to underestimate their implications over the next four years and beyond. By 2020, real estate managers will have a broader range of opportunities, with greater risks and new value drivers. As real estate is a business with long development cycles – from planning to construction takes several years – now is the time to plan for these changes.

Already, thousands of people migrate from country to city across Asia, the Middle East, Latin America and Africa on a daily basis, attracted by the new wealth of these economies. By 2020, this migration will be firmly established. The cities will swell – and some entirely new ones will spring up. Meanwhile, the growing emerging markets' middle class and ageing global population are increasing demand for specific types of real estate. Subsectors such as agriculture, education, healthcare and retirement will be far bigger by 2020.

High energy prices, climate change and government regulation are already pushing sustainability up the real estate agenda, but by 2020, their impact will be far greater. Technology is already disrupting real estate economics, but by 2020, it will have reshaped entire sectors. And the real estate community will have taken a greater role in the financial ecosystem, in part moving into the space left by banks.

We believe the new era of real estate investment, to 2020 and beyond, is the beginning of a time of unprecedented opportunity for real estate investors and asset managers, although with greater risk. The global stock of institutional-grade real estate will expand by more than 55% from US$29 trillion in 2012, to US$45.3 trillion in 2020, according to our calculations (see full Real Estate 2020 paper). It may then grow further to US$69 trillion in 2030.

This huge expansion in investable real estate will be greatest in the emerging economies, where economic development will lead to better tenant quality and, in some countries, clearer property rights. And it will play out across housing, commercial real estate and infrastructure. Indeed, as intense competition continues to compress investment yields for core real estate, real estate managers will have every incentive to search for higher yields elsewhere.

On this and the next page, we highlight our six predictions about what this means for real estate managers and the investment community. After that, we describe our view on the likely changes in the landscape, their possible implications and how we believe you should prepare for this fast-changing world.

Six predictions for 2020 and beyond:

The changing real estate landscape will have substantial implications for the real estate investment community, which we highlight below and describe in the full Real Estate 2020 paper.

1. The global investable real estate universe will expand substantially, leading to a huge expansion in opportunity, especially in emerging economies. World population growth and increasing GDP per capita will propel this expansion. By 2020, investable real estate will have grown by more than 55% compared to 2012, according to PwC forecasts, and then will expand by a similar proportion in the following decade.

2. Fast-growing cities will present a wider range of risk and return opportunities. Cities will present opportunities ranging from low risk/low yield in advanced economy core real estate, to high risk/high reward in emerging economies. The greatest social migration of all time – chiefly in emerging economies – will drive the biggest ever construction surge.

3. Technology innovation and sustainability will be key drivers for value. All buildings will need to have 'sustainability' ratings, while new developments will need to be 'sustainable' in the broadest sense, providing their residents with pleasant places to live. Technology will disrupt real estate economics, making some types of real estate obsolete.

4. Collaborating with governments will become more important. Real estate managers, the investment community and developers will need to partner with government to mitigate risks of schemes that might otherwise be uneconomic. In many emerging economies, governments will take the lead in developing urban real estate and infrastructure.

5. Competition for prime assets will intensify further. New wealth from the emerging economies will intensify competition for prime assets; the investment community will need to think laterally to earn attractive returns. They might have to develop assets in fast-growing but higher risk emerging economies, or specialise in the fast-growing subsectors, such as agriculture, retirement, etc.

6. A broader range of risks will emerge. New risks will emerge. Climate change risk, accelerating behavioural change and political risk will be key.

Looking forward to 2020, it's the real estate managers and investors with the vision to anticipate emerging trends in the medium term and to prepare for them, which will be most successful. The winning managers of 2020 will have already started to shape their responses to some or all of the fast-evolving trends described in this paper.

This article is an extract from our Real Estate 2020 paper. The full study can be downloaded from: https://www.pwc.com/gx/en/asset-management/publications/assets/pwc-real-estate-2020-building-the-future.pdf


As confidence returns to real estate, the industry faces a number of fundamental shifts that will shape its future.

We have looked into the likely changes in the real estate landscape over the coming years and identified the key trends which, we believe, will have profound implications for real estate investment and development.

Real Estate 2020
Building the future

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