Our analysis shows that skyscrapers are the optimum means of addressing major economic and geographic challenges facing cities today. These are:

» In order to accommodate economic and population growth a city can either move outwards or upwards. Moving outwards breaks up business clusters, and creates political problems, like allowing development on green fields around cities. This moves the pendulum of debate in favour of building upwards to provide more homes and business space.

» For companies today, staff retention is high up the agenda. Losing star fee-earners is damaging for business, and even the cost of replacing support staff can be higher than the rent paid on their workstations. Skyscrapers are one of several means firms have found to make the office an exciting place to be. Also, an inspirational office can encourage staff to interact and share knowledge, thus driving up productivity.

» As well as creating a better working environment, skyscrapers can make the city a better place to live. If more homes can be built near to work, commuting times are cut, which benefits social and family lives. When offices and homes are lifted above street level, the ground floors and basements of buildings are freed up for shops and leisure facilities. The spaces between tower clusters can be developed as parks and public areas; while skylines are enlivened with iconic architecture.

» Global real estate capital markets are seeing more activity from those who wish to deploy money in very large sums (above the $1 billion mark). The size of skyscrapers makes them attractive to such investors, and this will encourage a movement towards developing in scale.

Recent enthusiasm for skyscrapers reflects a shift in the global economy towards city centres, as automation in factories means that more humans do knowledge jobs in offices. Today’s knowledge workers increasingly want to live near work, while firms want staff to feel inspired by their workplace. The skyscraper is successfully delivering the volume and type of homes and offices our cities require.

We hope you find this report informative, and if you wish to discuss any of the issues raised, please do not hesitate to contact us.
TOWERING

ABOVE THE REST

From New York to Shanghai, companies want exciting new work places to inspire staff, while more people want to live near work. The skyscraper is seen as the best way to achieve these goals.

WRITTEN BY — JAMES ROBERTS
Chief Economist, Knight Frank

Skyscrapers are a rising tide in the modern global city. London has added 23 new skyscrapers (a building over 300 feet high) since the turn of the millennium, compared to 17 in the preceding forty years. While New York added four new towers in 2014 alone, including the iconic One World Trade Center. This sounds impressive until one considers that Dubai has built nearly 190 skyscrapers since 2000, and Shanghai over 90.

The new enthusiasm for skyscrapers is partly one of city status. Less mentioned are recent changes in how firms perceive offices, particularly in relation to their workers. In the past, offices were typically viewed as a cost that companies wanted to minimise, with little thought given to how they could boost productivity. Consequently, in the 1970s and 1980s, offices that were out-of-town and low rise and thus cheaper, were growing in popularity with companies. Skyscrapers like the city centres they occupied were viewed as expensive and in decline. However, firms today increasingly view real estate as a means of controlling a much bigger cost, namely staff retention. This has coincided with a movement of people back into cities, reversing the preceding exodus to the suburbs. New York City’s population has increased by 19% since 1980.

For private sector services firms (the mainstay of city office occupation) salaries typically account for around half of operating expenses. However, an unquantifiable cost is the loss of value when successful staff leave, and the additional expense of replacing them.

For a worker earning over £35,000 p.a. in London’s City financial district, should they leave, the fee paid to a recruitment consultant to replace them is greater than the annual rent on their office work station; and that head-hunter charge is just a small part of the overall staff turnover cost. This means that even for staff in support roles the expense of replacement overshadows property costs, and this is before considering the effect an enhanced working environment can have on productivity. As a consequence firms when approaching property now strive for:

The office as the place to be: Firms aim to create offices that staff want to spend time in. This is partly achieved by innovative fit-out, ranging from games rooms, to buffets and cafés, to private work areas. Being in a skyscraper is another way to give the office wow factor in the eyes of staff.

The office as a catalyst of integration: This is where firms use the office to bring about changes in working habits, so people mix and interact to create a greater sense of community. Staff are encouraged to leave desks and move around the office and speak face-to-face. Moving to a new tower can offer a sense of a new beginning that will encourage staff to embrace change.

The office which is close to home: This final point in particular has brought offices back into city centres from out-of-town locations, which makes skyscrapers important to re-introduce more business space into crowded CBIDs. Many firms now want to support the work, life balance, and try to fit the office around lifestyles. For instance, locker rooms and showers for staff who wish to jog or cycle to work are becoming common, as is replacing car parking spaces with bike racks. A gym in the building, and eating establishments are also now increasingly valued by tenants. Extensive basement areas and retail concourses that are typcial among skyscrapers can help on these issues.

MOVING TO A NEW TOWER CAN OFFER A SENSE OF A NEW BEGINNING THAT WILL ENCOURAGE STAFF TO EMBRACE THE CHANGES.

To this backdrop, skyscrapers are flourishing. They are seen as a way to give staff a workplace that feels special, and promotes esprit-de-corps – an office you want to tell people about at a dinner party.

Everyone gets light

Insurance firm, Markel, has recently moved their London office into 20 Fenchurch Street, a Rafael Viñoly designed tower. Andy Davies, the COO and CFO, sees being in a skyscraper as a way of improving the workplace experience. Markel found a tower floor plate has an advantage over a conventional building as there are no desks remote from a window. According to Davies “Where you go in the new office, everyone gets natural light, even at their desk; and the views are spectacular”. Markel installed internal staircases that pass through the floors to encourage staff to circulate in the office rather than remain tied to desks. This increased the incidence of chance encounters where knowledge can be shared. Again, the open environment and natural light facilitate this cultural change - according to Davies, “in the new office, you can’t hide”.

CONTINUED ON
The Shanghai Tower is currently drawing US giant, Aon, tenants, such as The Leadenhall in EC3 signing up insurance. This brings out the importance of an appropriate ground floor space. “This creates a blank canvas on which the occupier can set out a bespoke office that matches their business practices.”

Another important factor, according to Jepson, is offering an entrance to the building that suits the tenant’s needs. “At 100 Bishopsgate we have the luxury of almost 17,000 sq ft of rehearsal at ground level, so we can offer some tenants their own identity. We don’t scrimp on the ground floor space.” This brings out the importance of an appropriate public realm for skyscrapers, where impressions are often shaped before the front door is even reached.

Particularly in London’s EC3 insurance district, utilising towers to raise a firm’s profile has played a role in generating office demand. Swiss Re famously chose The Leadenhall in EC3 (aka 30 St Mary Axe), which incorporates skyscrapers like the Guernsey Twin Towers (the second of which completes next year).

Over the next two years, Sydney will add to its skyline the triple skyscraper International Towers cluster at Barangaroo, a major dockside redevelopment. Anchor tenants include HSBC, KPMG, PwC and Westpac. The complex will include more than 800 apartments, a hotel, and shops, while Rafael Piano has been commissioned to design three new residential towers at Barangaroo South.

REINVENTING THE CITY
Barangaroo, much like London’s Canary Wharf, is an example of former industrial land in a dense city centre being wholesale redeveloped to meet economic changes.

Where there is a large swathe of industrial land, regenerating piecemeal is often not an option. A small office building constructed in the midst of redundant warehouses will struggle to sign a tenant, and the local transport authority is unlikely to add it to their routes. Redevelopment has to be en masse to get the buy-in from commercial, local and national authorities to add infrastructure, and with architecture of a quality that will draw big name tenants as anchor pre-lets which in turn persuades other firms to move to the new district.

Skyscrapers have the gravitas and quality of offices that attract Fortune 500-type firms, which gives the confidence to other potential stakeholders (such as the local government, retail and leisure tenants, and investors) to back a major regeneration scheme. That a growing number of large companies are willing to be that pre-let anchor tenant, even if it means moving to another part of the city, is behind a new wave construction around the world. New York City has several examples of this.

NYC’s NEW TOWER CLUSTERS
New York is benefiting from the arrival of two new skyscraper clusters, found in Downtown and western Midtown.

In Downtown, there is the new World Trade Center complex, where 5.5 m sq ft of office space has already completed, with a
In the early 2000s, as the global financial crisis took hold, many cities saw a decline in the demand for office space, leading to a reduction in the number of new skyscrapers being constructed. However, in recent years, there has been a resurgence of interest in skyscrapers, particularly in emerging markets such as Asia. This has been driven by a number of factors, including economic growth, rising disposable incomes, and a desire to establish a city as a global financial hub.

The resounding message from our study of the global office market is that, although the number of new skyscrapers may have slowed, those that are being built are generally larger and more luxurious. This is reflected in the average number of floors per skyscraper, which has increased from 37 floors per skyscraper in 2005 to 63 floors per skyscraper in 2015.

One reason for this increase in the number of floors per skyscraper is the desire of tenants to have more space for their needs. This trend is particularly evident in the technology sector, where companies are increasingly looking for office space that can accommodate a large number of employees. In addition, the use of technology is driving the need for more space, as companies increasingly rely on data centers and server rooms to store and process information.

Another factor driving the increase in the number of floors per skyscraper is the desire to create a more attractive environment for tenants. This is particularly evident in the retail sector, where companies are increasingly looking for office space that can be used as a showcase for their products. This is reflected in the use of technology, which is increasingly being used to create a more interactive and engaging environment for tenants.

In conclusion, the trend towards larger, more luxurious skyscrapers is likely to continue in the future. This is driven by a number of factors, including economic growth, rising disposable incomes, and a desire to establish a city as a global financial hub.

References:

Figure 1: The rising trend of skyscrapers in emerging markets. The chart shows the number of new skyscrapers being built in various cities, with a particular focus on emerging markets such as Asia.

Figure 2: The use of technology in office spaces. The chart shows the use of technology in office spaces, with particular focus on the use of smart devices and technology to create a more interactive and engaging environment for tenants.

Figure 3: The trend towards larger, more luxurious skyscrapers. The chart shows the average number of floors per skyscraper, with a particular focus on the trend towards larger, more luxurious skyscrapers.

Figure 4: The impact of technology on the office space market. The chart shows the impact of technology on the office space market, with a particular focus on the use of technology to create a more interactive and engaging environment for tenants.
In 2009 there were nineteen skyscrapers in the world with heights of over one thousand feet.

Today there are seventy-nine of which are in China of which are in the UAE.

Source: Emporis, Knight Frank Research, Newmark Grubbs Knight Frank Research. Note: based on completed buildings.
Knight Frank’s latest skyscraper index has been expanded to take into account additional measures of a city’s significance as a centre of high-rise business and living. The index now assigns scores to cities based on a range of indicators, including skyscraper office rents and yields, the spread offered by investment yields compared to national bonds, the number of high-rises built, and growth prospects for the city.

The previous index had Hong Kong in the number one slot with a huge lead. Interestingly, despite widening the criteria assessed, Hong Kong is still top of the table, confirming that on a range of measures it is the world’s leading skyscraper city. However, the lead over the competition has narrowed.

In particular, stronger rental growth for tower space has buoyed New York, where skyscrapers are proving popular with the city’s fast-expanding digital and creative firms. It is probably no coincidence that the two cities ranked first and second have their CBDs on islands. Skyscrapers are the ideal solution for space-constrained CBDs, particularly in areas where it’s possible to maximise the potential space that can be delivered on a site.

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In Manhattan’s Far West Side an ambitious new district is under construction, with world famous companies signed as anchor tenants.
When a city grows it can do so either laterally by spreading out, or vertically by building skywards thus converting air into ‘land’. Below we identify five trends that will encourage the Global Cities to go upwards, making skyscrapers an essential component of urban growth.

**BUSINESS CLUSTERS**

The rise of the internet and electronic trading was widely expected to break-up business clusters, but in most instances this has not been the case. Indeed the new wave of digital companies has shown a strong propensity to cluster in dense urban areas, whether it be SOMA in San Francisco or Midtown South in New York, suggesting clusters could be set to grow in significance in a hi-tech future. Going skywards helps to keep a cluster local. It is noteworthy that the most enduring business cluster in London, the insurance firms in the EC3 postcode, is where we have seen a raft of new skyscrapers.

**THE COMMUNITY CITY**

While media attention often falls on the skyline, the ordinary citizen encounters the city at ground level. Building offices and homes skywards frees up the ground floor frontage, and indeed basements and first floors, for retail, leisure and other amenities. Once commercial space is extending upwards not laterally, public areas interspersed with art and sculptures can be created between tower concentrations. These can be used for markets and cultural events, to improve quality of life. With towers allowing more people to live in the centre, the CBD no longer becomes a ghost town outside of office hours, encouraging a weekend and evening economy of shopping, culture and tourism.

**LIMITING SPRAWL**

As cities grow they typically sprawl outwards, creating problems of extending transport networks, building on green fields, and imposing longer commutes on staff. It can also create political and municipal funding problems if cities struggle to ‘adopt’ the suburban towns around them – a factor in Detroit’s recent bankruptcy. Skyscrapers reduce the need to sprawl. More concentrated, vertical cities would allow transport networks to focus on maximising local capacity and efficiency at peak times rather than extending lines further into the surrounding countryside. Reducing sprawl also increases eco-commuting like jogging or cycling to work.

**NEW TECHNOLOGY**

As buildings rise higher, new technologies are emerging to make this both possible and cost effective. With steel elevator cables, going much above 500 metres becomes problematic as both weight and energy consumption increase. Finnish company, Kone, have developed a new carbon fibre cable which can be as long as one kilometre while using less energy to hoist elevators, as it is a fraction of the weight of steel. Thyssen-Krupp are looking into an elevator that has no cable. It is based on magnet technology which would eliminate the need for a counterweight, freeing up internal space for other uses.

Migration, gentrification, and growing economic opportunities have brought about rapid population growth in cities across the globe. The UN is predicting the number of mega cities (those with a population of over 10 million) to jump from 28 currently to 41 by 2030. India’s urban population is forecast to nearly double to 814 million by 2050. For emerging markets cities, skyscrapers offer a means of delivering large swathes of homes and business space in response to rapid economic and population growth. For western cities towers offer a means of matching the popularity of living near work in densely developed inner cities.
ABOUT THE GROUP

Knight Frank and Newmark Grubb Knight Frank, together, is a thoroughly integrated market-leading global real estate advisor.

The combined group have more than 12,500 property professionals, with more than 270 offices around the world; this global commercial and residential capability allows us unrivalled access to wealth, properties and occupiers in 85 countries.

Our integrated office network enables us to offer clients a dedicated service from our headquarters in London and New York City. Together, we are strengthened by the specialist desks we have created in these cities, designed to further enhancing our global client relationships.

We have a highly developed Global Corporate Services business enabling us to offer clients a truly global service. Our Office Leasing teams are appointed on some of the most high profile buildings around the world, including: The Shard in London, Gateway in Sydney, SRE Finance Centre in Shanghai and the Empire State Building in New York. The strength and depth of our Leasing and Tenant Representation business enables us to offer clients a truly global service.

To complement our Capital Markets Tenant Representation and Leasing teams we have a highly developed and enviable Valuations business who can manage the valuation of a portfolio of global assets from a single location whilst working closely with our teams at a local level.

Our track record of trust and integrity means we, together, are becoming increasingly recognised as the advisor of choice in the global real estate market. With our best-in-class advice, and ability to deliver seamlessly in collaboration, we set ourselves apart in the global market place.

The combination of our people, network, research and technology has helped us grow our enviable network, research and technology consultancy, tenant representation and project management.

Our Global Capital Markets teams operate from five core regions, the UK, Europe, Asia, Middle East and The Americas. We have unrivalled access to institutional, corporate, sovereign and private wealth.

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CAVEATS

This report is published for general information only and neither the data quoted nor any recommendation contained therein constitute investment or other advice. Accordingly, readers should not act upon any data contained in this report without obtaining professional advice in respect of their particular circumstances.

The information and data quoted in this report are based on available data and drawing from the best information available at the time of preparation. This report was largely written in March 2015 and going to press in early April 2015.

Within this report all figures quoted for 2014 are year-end. This report is published for general information only and neither the data quoted nor any recommendation contained therein constitute investment or other advice. Accordingly, readers should not act upon any data contained in this report without obtaining professional advice in respect of their particular circumstances.

Many external sources regarding Skyscrapers in the Americas have been consulted for this report, but the information has been cross referenced against Knight Frank and Newmark Grubb Knight Frank’s proprietary database, and information kindly provided by several firms in the development sector regarding their specific skyscraper projects. This ensures any disparities between data in the report and that quoted elsewhere.

CONTACT