Global real estate markets

Metropolitan areas present
increasing opportunities

Bouw**invest**

Content

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Foreword

Today's pension funds operate in a complex environment. After struggling to maintain their financial reserves in the aftermath of the credit crisis, some funds are now faced with low coverage ratios, thanks to current interest rates. The key to their ability to meet their commitments lies in how they deal with this and additional challenges.

Pension funds want an acceptable balance between returns, risk and control, so it is not surprising that they are taking a more critical approach to their investments and upping their exposure to alternative asset classes. Real estate has always accounted for a significant proportion of pension fund investment portfolios. After all, real estate is a very effective way to improve the diversification of a fund's investments. The direct returns are relatively high and the risk-return ratio is very favourable, especially when compared to other assets classes. On top of this, real estate offers good potential for inflation hedging. The current monetary climate with its historically low interest rates does nothing to diminish those benefits. On the contrary: real estate has seldom looked better.

Most market watchers agree that international real estate investments are set to become more important in the coming years. Real estate asset managers can use international real estate funds to diversify more effectively, thanks to the wider range of investment options and the spread of economic cycles and specific opportunities.

Bouwinvest Research has developed a range of in-house models and methods that provide the information we need to analyse markets and gain insight into the specifics of (potential) investments from this broad palette of options. Our research team monitors, collates and processes enormous amounts of data, trends and market developments to identify opportunities. The outcome of these analyses, combined with the expertise of our portfolio managers, investment analysts and the local managers on the ground, puts us in an excellent position to select the right investments.

Our in-depth market research has highlighted the increasing importance of metropolitan areas as an investment option. We see the most marked economic and demographic growth in the world's city regions, which provide a solid basis for a well-diversified real estate portfolio. However, this growth and prosperity do come with a number of risks and challenges. Will these areas remain liveable in the long term? Will housing still be affordable? Urban areas will have to evolve and adapt constantly to make sure they remain fit for purpose in the future. We believe that close collaboration between stakeholders can make the difference.

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1 Metropolitan areas present a huge opportunity for global real estate players

Metropolitan areas are winning the battle on the demographic and economic growth fronts. They are attracting the most people and the most companies and this growth is set to continue. As a result, metropolitan areas have the most competitive and opportunity-rich real estate sectors in all segments. At the same time, however, city regions face major challenges if they are to achieve a healthy balance between growth and liveability.

In today's global economy, companies can choose the best places to locate and operate. Modern companies perform at their best in dense yet liveable multifunctional areas with strong economic drivers and skilled pools of labour. As metropolitan areas grow, their political power increases and they become magnets for demographic and economic growth, attracting the businesses, jobs and people companies need.

The outlook for economic and demographic growth is generally more positive for metropolitan areas than the country as a whole. Of course, political changes have a strong influence on demographic developments, such as migration. The recent US presidential election and British vote to leave the European Union may have a demographic and an economic impact at both a country and city level.

Defining the metropolitan area
There are various definitions of what counts as a metropolitan area. Most include its economic or politic importance to the peripheral area, its competitive position, population size and certain density measures.

We define metropolitan areas as cities with a minimum of 500,000 inhabitants with a strong economic competitive position within the wider region. While metropolitan areas can be politically, logistically or innovation-oriented, ultimately they require competitive economic growth to remain at the forefront in the future.

The performance of real estate investments correlates strongly with GDP growth and demographic trends. However, even though immigration may decrease in specific countries, we believe demographic growth in metropolitan areas will remain stronger than growth in the country as a whole.

Figure 1: Country and metropolitan area-based expected economic and population growth (2017-2026)
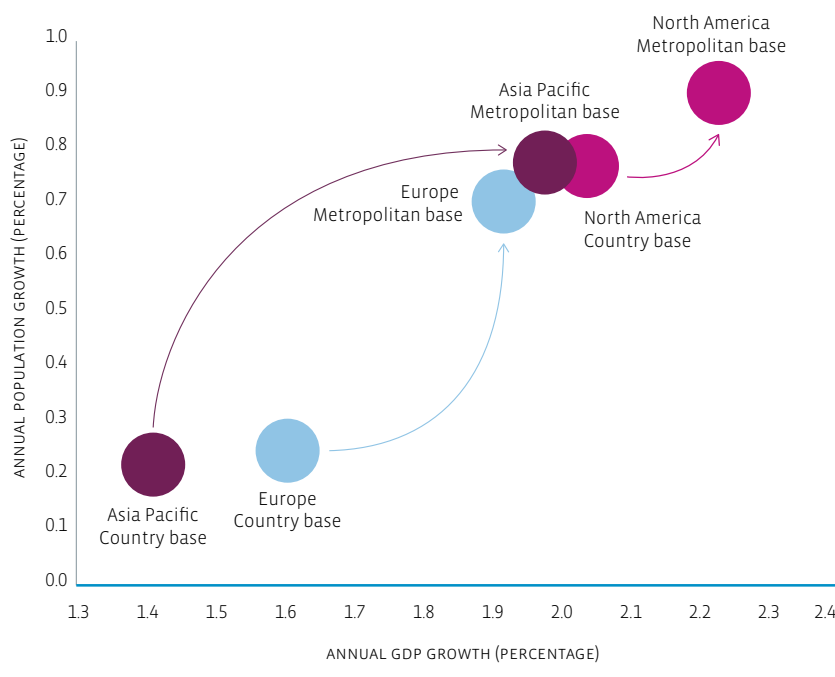
All continents have two forecasts: a country base and a metropolitan base. The country base forecast is the weighted average growth of countries in the continent. The metropolitan area base is the weighted average growth of the major metropolitan areas in the continent. China is excluded.

Source: Oxford economics, Bouwinvest Research (2016)

Figure 1 shows that population growth forecasts for metropolitan areas clearly stand out when compared to country forecasts, whatever the territory. For instance, population growth in Asian metropolitan areas is forecast to average about 0.8% per annum, while the average population growth in Asian countries is around 0.2%. This shows that the urbanisation trend will continue.

However, the difference in growth for certain developed countries will be somewhat lower in the coming decade compared to the past. Urbanisation tends to slow slightly when a certain threshold has been passed and political changes may have an additional effect. However, overall, forecasts also show that metropolitan areas will outperform their home countries in the field of economic growth.

The difference between metropolitan areas and countries in Europe and Asia is most striking, with metropolitan areas expected to show economic growth of 1.9% and 2.0% respectively in the period 2017-2026. However, average country GDP growth for the two continents are forecast at an average of just 1.6% and 1.4% respectively. This means that metropolitan areas will absorb the bulk of GDP.

Size does matter, but liveability is key

The most successful metropolitan areas will be those that achieve a balance between growth and liveability. Most experts, including UN and OECD officials, agree that achieving this balance will require a determined effort and the effective use of technological advances and innovations.

Metropolitan areas have achieved their strong competitive positions thanks to the confluence of hard economic and demographic factors and soft attractiveness factors.

Hard economic factors
Hard economic factors include GDP volume and growth, infrastructure, legislation, tax structure and foreign direct investments. Metropolitan areas need broad and diverse business activity to thrive. After all, both (multi)national and boutique firms need sufficient market size and diversity within cities to create synergies, which in turn boost creativity. At the same time, human capital and technology are becoming increasingly important, as digital knowledge and platforms are vital for economic growth.

Soft factors
Soft factors such as cultural amenities, quality of life and sustainability keep metropolitan areas liveable and enjoyable for their residents. This and the thriving business sector, with the resultant employment opportunities, are crucial in attracting and keeping talent.

Metropolitan areas that can achieve a balance between economic and demographic growth and a liveable and sustainable urban environment will be successful, even if their size is relatively small.

Size does matter, but smaller metropolitan areas can compete with their larger peers by excelling on the soft criteria front. A combination of specialised skills, quality of life and affordability factors can make a major difference to their competitiveness.

Types of metropolis
One way to identify types of metropolitan areas is to look at the GDP contribution of underlying industries. We have identified four types of metropolitan areas:

- Logistics-driven
- Financial centres
- Innovation hubs
- Mixed function

It is generally recognised that logistics-driven and financial sector-dominated cities are often long-established cities. By contrast, many innovative cities have only recently built up their reputation or are currently making a name for themselves.

Logistics-driven
Logistics-driven metropolitan areas tend to have a relatively large GDP contribution from transportation and warehousing. These include established ports such as Shanghai, Singapore and Guangzhou in Asia and Rotterdam, Antwerp and Hamburg in Europe. However, as the global logistics market grows and transforms, new logistics hubs are being developed. Cities like Philadelphia and Seattle are now becoming more important as logistics hubs while Manchester and the Brabant area in the Netherlands are consolidating their position.

Financial centres
Financial metropolitan areas have a concentration of business services. Leading examples include Tokyo, London, New York, Frankfurt and Hong Kong. The financial service industry in Tokyo, for example, contributes 29% to the city's total GDP.

Innovation hubs
Innovation hubs are interesting areas for investment as they often show steep growth in a relatively short time frame and can be described as the 'rising stars' of the near future. San Francisco and Silicon Valley are already well established. Eindhoven, San Diego and Malmö are among the cities on the rise.

Mixed function

There are also well-known examples of stand-out cities that combine different functions, which often score well in terms of quality of life. Dublin, for example, attracts large numbers of international visitors and innovative and financial businesses and has also managed to attract some of the world's leading tech businesses. Stockholm also scores high in rankings due to its high-tech industry, creative buzz and very high quality of life. Other good examples are Vienna, Vancouver, Sydney and Munich [1].

Cities can also cooperate to compete more effectively with larger metropolitan areas. In the Netherlands, the biggest four cities (Amsterdam, Rotterdam, Utrecht and The Hague) work closely together and present themselves as a single urban conglomerate, the Holland Metropole. This alliance has helped the big Dutch cities punch above their weight in international terms and attract large numbers of domestic and international businesses and investors.

1   AT Kearney, 'Global cities 2016'.

The emergence of the polycentric city

One trend in urban development is the emergence of polycentric cities, or cities with a number of different centres, often serving hi-tech or innovative business sectors, but more importantly offering residents greener, more affordable and healthier environments than those found in traditional inner cities.

People used to gather in metropolitan areas to find work or to trade so the growth of most metropolitan areas was driven by their natural location. Some have emerged in the middle of a country but many more have grown on the basis of their location on a river or near the sea. During the industrial revolution, a physical location was essential, as economic growth was based on manufacturing. In this digital age, emerging metropolitan areas focus primarily on knowledge rather than industry. Knowledge can lead to innovation, which in turn may result in economic growth. Physical location is now much less important.

The rise of IT has closed physical distances and can facilitate all the main basic administrative tasks. This leads some to believe that in the future there will be no need to live in urban areas.

We believe the opposite is true. The digital revolution has given people access to enormous amounts of online information but information alone is no longer enough to gain the advantage. Innovation – the smart application of combined knowledge - is essential to sustainable economic growth. In an increasingly specialised world, individuals rarely have all the pieces of information or know-how required for true innovation. It is the dialogue and exchange of know-how between various specialists that is vital for innovation.

Many experts believe that polycentric cities are one sustainable solution to burgeoning urban development, as they help create and preserve a dynamic and creative network that can drive sustainable economic and demographic growth. Often the centre has the most commercial value and the peripheral areas are appreciated as living environments by large groups within society.

Some target groups, like young professionals and seniors, might still prefer to live in the city centre. The presence of amenities like restaurants and theatres could be considered more important than affordability and space. Excellent infrastructure is key in the development of polycentric cities. In addition, the peripheral areas must offer a good mix of functions and amenities to ensure a liveable and pleasant environment.

The population density in metropolitan areas facilitates interaction, which in turn makes innovation possible. Young people in particular are attracted to these innovative districts. Ensuring a good supply of affordable housing is key to keeping young talents. Metropolitan areas that actively stimulate interaction between the private sector, government bodies and universities are most likely to prosper. In a knowledge-based society, the triple helix[2] of university, companies and government should be stimulated to interact on a continuous basis.

Figure 2: Triple helix
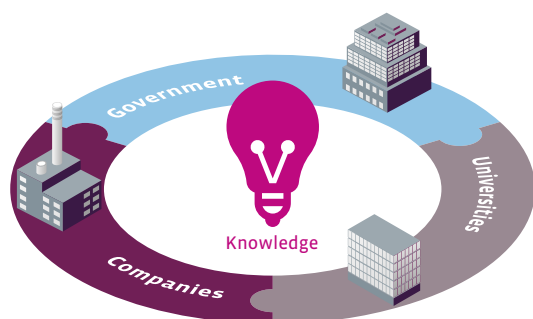
Source: Etkowitz, H. (1995) and Bouwinvest Research (2016)

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2 Etkowitz, H., Leydesdorff, L. 'The Triple Helix: University - Industry - Government Relations A Laboratory for Knowledge Based Economic Development', (1995)

Limits on space and high housing costs in existing city centres have encouraged smaller and innovative companies to move to new parts of metropolitan areas, while mobile citizens are looking for affordable and healthier urban areas close to the centre.

However, neither the centre nor the citizens in the peripheral areas can function without the other and distance or travel time should not be too great. The centre needs the knowledge of its commuting residents to create a strong platform for innovation. Urban professionals need the city centre with its businesses and institutions to meet each other, exchange ideas and to finance their innovation (see figure 3).

Figure 3: The polycentric metropolitan areas
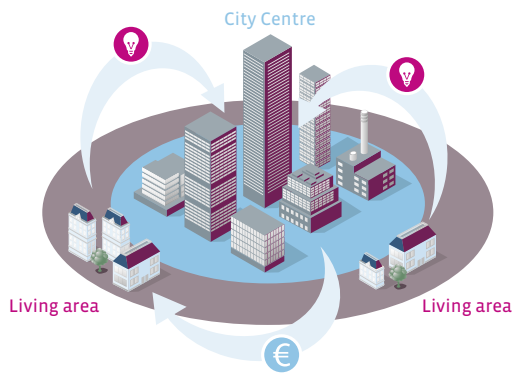
Source: Bouwinvest Research (2016)

Real estate opportunities in diverse metropolitan areas

Both the city centre and the peripheral areas offer a range of real estate investment opportunities. However, the right function in the right location is essential. In most cities the centre is the commercial heart and offers long-term investment opportunities and returns for offices and (high street) retail. If the city attracts large number of tourists and/or business travellers, hotels are likely to be profitable.

Residential preferences depend on the specific requirements and preferences of the different demographic groups. Some – mainly younger and older generations - appreciate living near to the lively city centre and its amenities and look for housing which meets their specific wishes. Market watchers predict a strong increase in small, one-person or two-person households that will lead to a demand for smaller homes. Faced with limited options, youngsters are prepared to share housing with others. The elderly will look for housing that can be adapted to meet their specific needs and with the option of care facilities.

Other city dwellers prefer to move from the centre to areas that are associated with a better affordability and more space, such as people who can afford larger houses and want better public amenities, such as parks, schools and sport facilities. This makes a better case for residential investments for those appreciating these amenities. The relocation of people to these residential areas in turn creates opportunities for other types of real estate, such as convenience retail. People want their daily shopping to be as easy and convenient as possible, both physically and digitally. The physical need translates into convenience shopping centres, while the digital need increases demand for logistic centres located close to customers.

2 Three megatrends are driving the global real estate sector

Megatrends will have a huge impact on the global real estate sector and drive increasing opportunities for real estate investors whose capital will play a pivotal role in meeting the growing – and changing – demand for quality real estate.

The impact of the ageing population, the rising middle class and technological innovation such as robotisation and e-commerce will be felt throughout the world's fast-growing metropolitan areas. Figure 4 provides an overview of the impact of these trends on real estate sectors: the darker the colour, the stronger the impact.

There are three main drivers of change in the future global real estate sector:

- Urbanisation
- Demographic change
- Technological innovation

Figure 4: Impact drivers on real estate sectors and underlying megatrends

| Trend	Megatrend	Residential	Retail	Offices	Logistics	Hotels
Urbanisation	• Urban population growth	++	+	+	+	+
Demography	• Ageing population • Rising middle class	++	++	+	+	+
Technology	• E-commerce • Robotisation • Artificial Intelligence • Shared Economy	+/−	++	+	++	+/−

Source: Bouwinvest Research (2016)

Based on long-term trends, the fundamental drivers underlying market developments are the most marked in the residential and logistics markets. The retail and office markets are facing a greater number of challenges. These sectors are likely to require some form of restructuring and innovative new concepts in the future. Yet, despite the polarisation in these markets between struggling and strong assets and locations as a consequence of these trends, we believe solid opportunities will remain in the best segments for all sectors.

Urbanisation

The United Nations[3] predicts that 66% of world's population will live in metropolitan areas in 2050, up from 54% in 2016. According to these projections, urbanisation and overall growth of the world's population could add another 2.5 billion people to urban populations by 2050. About 37% of this growth will occur in China, India and Nigeria. Although the United Nations figures show that growth figures in cities in developing countries are expected to be highest, this does not mean the urbanisation trend is over for developed countries.

Forecast population growth varies widely between the world's leading metropolitan areas. However, overall urban areas show higher population growth compared to country averages. This globally recognised urban growth will have an enormous impact on real estate markets. That is why it is logical for many institutional investors around the world to shift their focus from countries to metropolitan areas.

Figure 5: City and country expected population growth (2017-2026)

PERCENTAGE
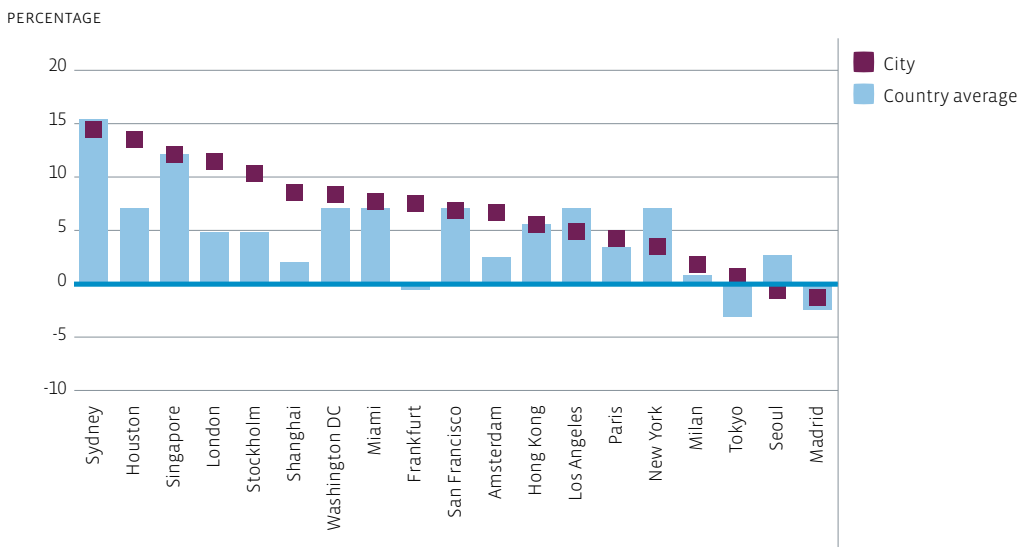
Source: Oxford Economics, Bouwinvest Research (2016)

Figure 5 shows the difference in population growth of a sample of metropolitan areas compared to their country average for the period 2017-2026. In general metropolitan areas are expected to grow more than their countries as a whole. However, the graph shows that Sydney, San Francisco, Los Angeles, New York and Seoul are exceptions to the rule with respect to the urbanisation trend. This is due to a variety of specific reasons. Seoul, for instance, is one of the most densely packed cities in the world. Combined with limited room to grow and low childbirth rates, the population is declining. New York is an example where high house prices play a vital role. People are moving to other cities where job opportunities and housing affordability are more balanced.

3   UN, 'World Urbanization Prospect: The 2014 Revision'.

Demographic change

The changing make-up of the global population will have a major impact on the real estate sector. In particular, the sharp growth in the number of elderly people will lead to changes in the way countries, and cities, deal with their ageing populations. At the same time, immigration and the rise in the size of a global middle class is having an impact on cities as both residential and tourist hubs.

Ageing population

By 2040, no less than 24% of the total population in Europe will be 65 years or older according to United Nations[4] forecasts. Major European cities are facing qualitative challenges, as a disproportionate number of older people are attracted to the broader services offered in these urban centres. However, the forecasts show the elderly will account for an even greater proportion of the overall population in countries like Japan, China and Canada.

We expect the majority of seniors to move to peripheral living areas although a smaller and more dynamic group of seniors might prefer to live in the centre.

People from previous generations are now returning to smaller but high-quality properties once they retire or their children leave home. This will have a major impact on the demand for certain types of residential real estate, with a marked upturn in demand for various levels of assisted living or group facilities for wealthier retirees.

Figure 6: Expected percentage aged population in 2040
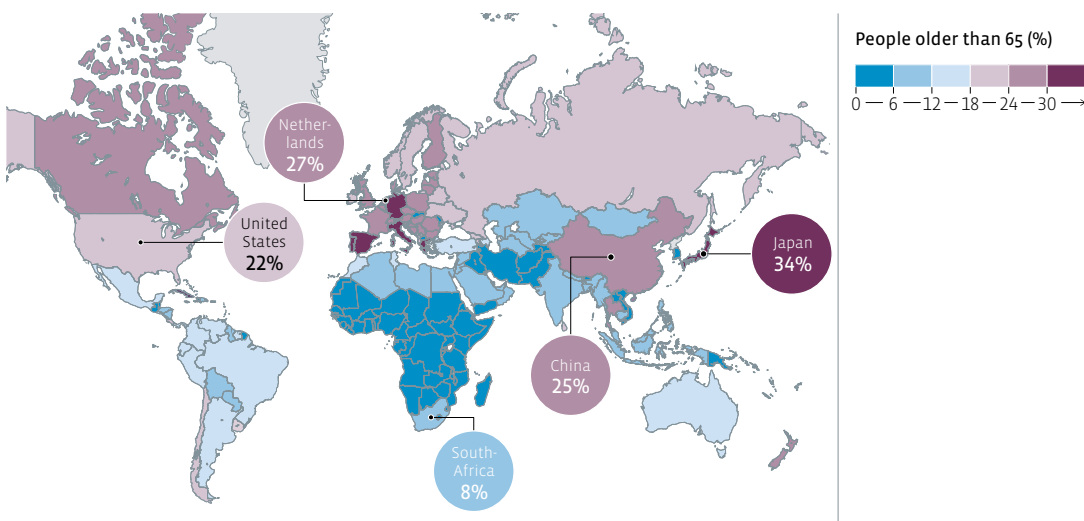
Source: United Nations and Bouwinvest Research (2016)

Immigration

Some metropolitan areas with relatively low birth rates could still grow due to immigration. The populations of the US and Canada, for example, are forecast to grow 6.3% and 7.7% respectively by 2024 due to net immigration. Australia is seeing an increase due to the inflow of Chinese students. Within Europe, Germany and Italy show relatively high immigration figures. However, immigration is currently high on the political agenda in Europe and North America so forecasts are somewhat uncertain.

Nevertheless, the current estimates provide a solid base for future economic expansion and higher demand for real estate in metropolitan areas. In Europe and North America, urban demand is being boosted by the millennial generation who are choosing to live in inner city areas for longer periods than their predecessors.

4   United Nations, Oxford Economics Global Economic Databank 2016.

Figure 7: Expected growth middle income class 2009-2030

€ X BILLIONS
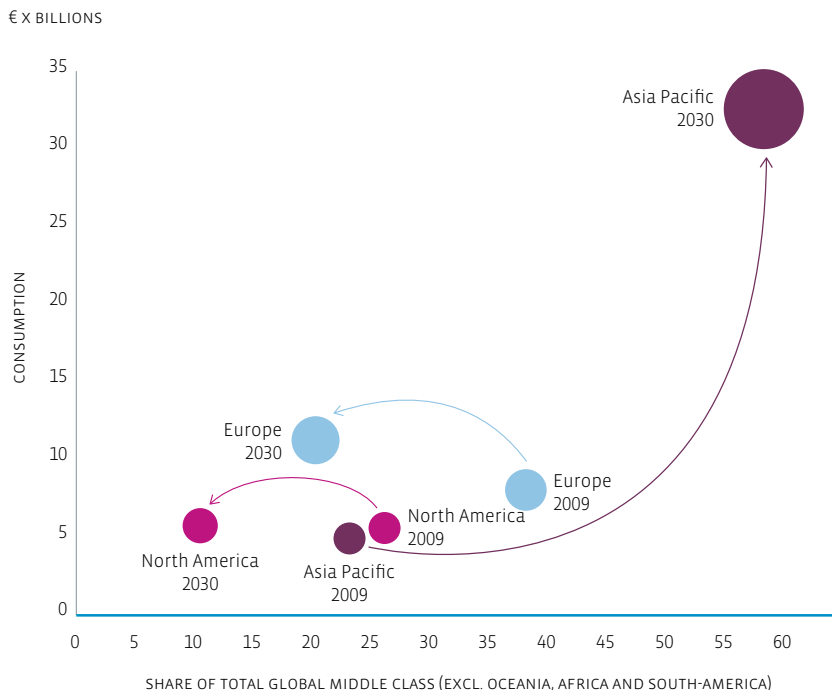
Households consuming between $ 10 and $ 100 per day per person (at purchasing power parity).
Source: OECD and Bouwinvest Research (2016)

Rising Asian middle class

The middle class is expanding rapidly in the developing countries of the Asia Pacific region. By 2030, the Asia Pacific region will account for almost 60% of global middle class consumption[5].

China, India and Indonesia in particular will expand their relative size in terms of global middle class consumption. This opens up opportunities for real estate investments, as families are able to spend more than their essential needs.

As the middle class travels and shops, in physical stores and online, this will open up opportunities for the hotel, logistics and retail sectors.
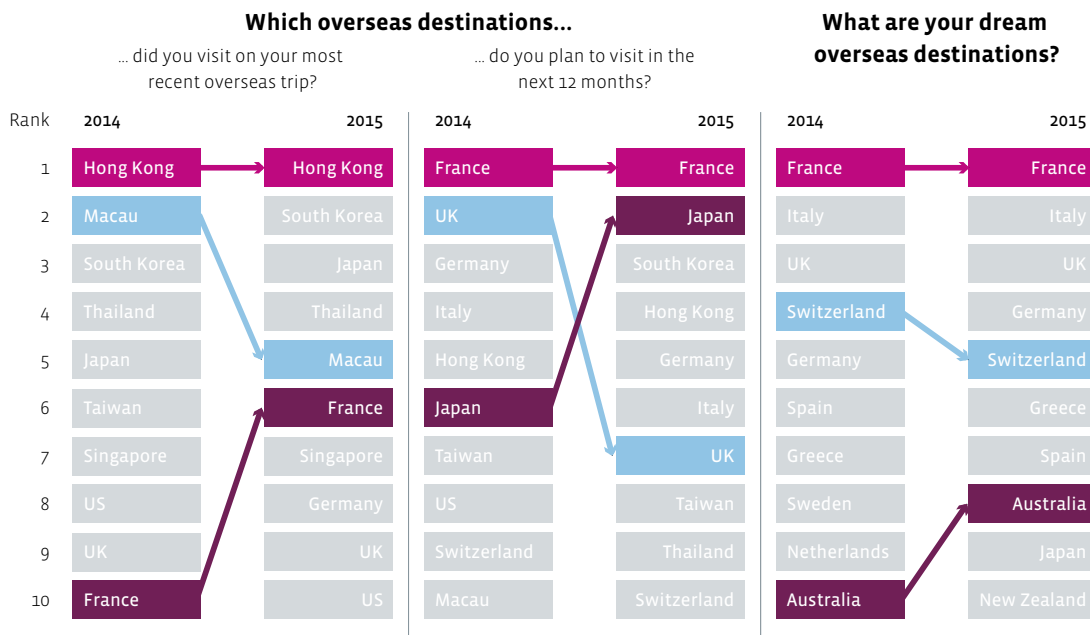
The rapidly increasing middle class is set to push consumption and outbound travel to higher levels. China had 120 million outbound visitors in 2015, up 12% on 2014. They spent US$ 104.5 billion outside their country, an increase of 16.7% compared with the previous year[6].

According to the China Tourism Research Institute, Hong Kong, South Korea, Japan and Thailand are the most popular travel destinations among Chinese tourists. The most popular European countries are currently France, Germany, and the UK. However, other areas are also profiting from the increase in the number of Asian tourists.

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5   Oxford Economics, Global Economic Databank. June 2016.
6   Travel China Guide, China Outbound Tourism in 2015.

Figure 8: Travel destinations Chinese tourists

Rank	Which overseas destinations... ... did you visit on your most recent overseas trip?		... do you plan to visit in the next 12 months?		What are your dream overseas destinations?	
	2014	2015	2014	2015	2014	2015
1	Hong Kong	Hong Kong	France	France	France	France
2	Macau	South Korea	UK	Japan	Italy	Italy
3	South Korea	Japan	Germany	South Korea	UK	UK
4	Thailand	Thailand	Italy	Hong Kong	Switzerland	Germany
5	Japan	Macau	Hong Kong	Germany	Germany	Switzerland
6	Taiwan	France	Japan	Italy	Spain	Greece
7	Singapore	Singapore	Taiwan	UK	Greece	Spain
8	US	Germany	US	Taiwan	Sweden	Australia
9	UK	UK	Switzerland	Thailand	Netherlands	Japan
10	France	US	Macau	Switzerland	Australia	New Zealand

Source: China Confidential (2016)

Hotel sector set to benefit

Not surprisingly, major cities are magnets for hotels as they usually attract both business and tourist travellers.

The hotel sector is now increasingly recognised as a real estate asset class in its own right and is typified by its stable income flows. Valuation declines were relatively limited during the global financial crisis.

New players such as Airbnb are starting to emerge, but they are still a minor factor in the overall tourism sector. Although Airbnb is growing rapidly, with a total of 80 million room-nights in 2015, conventional hotels still had a 96% overall market share with 1.7 billion room nights in the same period. If the impact of Airbnb increases, we expect this to be within the low budget recreation oriented segment, rather than the high-end business oriented segment. To date, however, initiatives like Airbnb are facing considerable obstacles in some cities in terms of restrictions and tax legislation. This competition is also driving the hotel industry to respond by initiating new concepts that embrace and use digital platforms and other technological applications.

Technological innovation

New technologies are both forcing and enabling real estate markets to change. Technology will both strengthen and weaken certain real estate sectors and sub segments. Growing e-commerce might change the need for retail real estate but it will increase the need for logistics warehouse space much closer to customers. At the same time, technological improvements and innovation are leading to new revenue models, thriving companies, modern real estate concepts and new funding sources.

Modern companies flourish in dense multifunctional areas with their strong economic drivers and skilled labour pools. Human capital and technology are growing in importance as digital knowledge is key to economic growth. Cities with a spirit of innovation are likely to attract young talent and become hubs of communication, collaboration and knowledge.

Dublin is expected to show the highest employment growth in innovation sectors by 2025. Madrid, London, San Jose and Amsterdam complete the top 5.

Figure 9 Expected share of innovation in the economy in 2025 (European and North American cities)
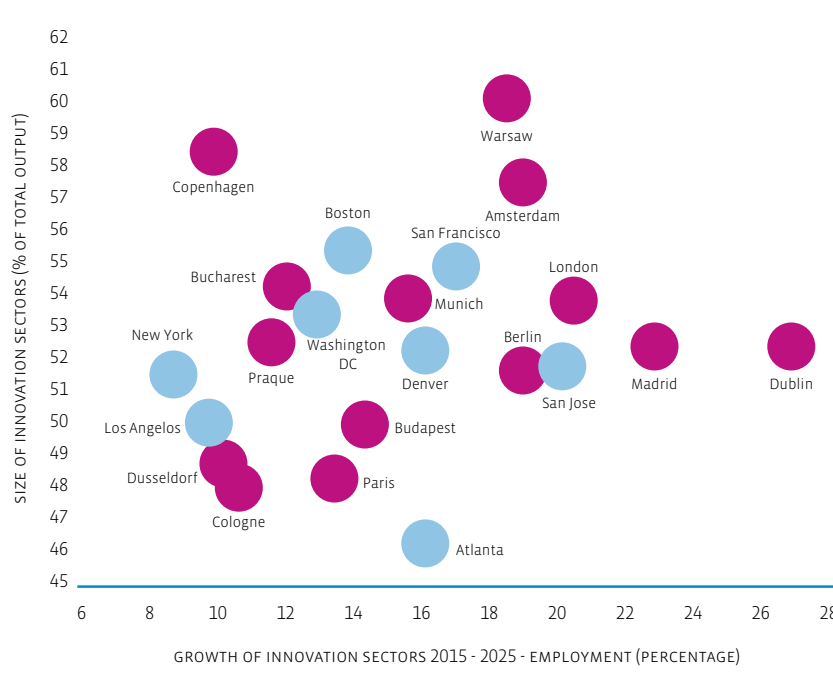
Source: Oxford Economics and Bouwinvest Research, 2016

Changing logistics

The logistics sector is already undergoing a major transformation as it adapts to the changing demands driven by burgeoning growth in e-commerce. A focus on efficiency and costs is forcing logistics players to make the most of technological advances and innovations, such as robotisation.

This, in turn, is leading to efficient logistics centres in locations on the outskirts of large urban centres. However, the growth of e-commerce and increasing consumer demands for fast or same-day delivery is driving demand for smaller logistics hubs much closer to consumers.

On top of this, supply chains are changing due to technological innovation. While historically labour-intensive manufacturing has shifted to low cost emerging countries, mainly in Asia, this could become a reverse shift in the future. Increasing technological advancements are providing strong competition and might lead to the retention of more advanced manufacturing in more mature countries, as more skilled workers are required and production costs fall.

As a result, the focus in the mature countries is shifting to clustered service activities such as developing R&D facilities, which support increasing technological advancements in the production process and just-in-time manufacturing. This reconfiguration may affect the pattern of high demand for modern distribution centres.

The shared economy

Companies like Uber, Airbnb and WeWork are showing unprecedented growth by providing platforms for the sharing society. Consumer preferences are shifting away from 'owning' to 'pay for usage' and the resultant increase in shared usage may impact demand for traditional real estate space.

In the office sector, co-working has become popular as people start working from various operating bases rather than one fixed workplace. The number of co-workers is expected to double within two years[7], driven primarily by improved IT and work environment expectations. The desire for cost cutting and increasing traffic congestion has led to growing demand for office space located in urban areas and near public transport facilities. This in turn is driving the increasing popularity of multi-tenant office space in an inspiring and mixed-use environment. Tenants are looking for smaller office spaces that offer various operating bases for employees.

We expect the flexible use of office workplaces to remain a major trend that will increase the demand for multi-tenant office space in urban areas in the years ahead.

Regulation and transparency

Changing regulations and the importance of greater transparency are also having a profound impact on various real estate sectors. For example, the revaluation or termination of government-funded financial aid for social, senior housing and the owner-occupied market in certain countries is creating investment opportunities in the private rental and healthcare sectors.

Improved transparency is making an increasing number of countries in the Asia-Pacific region a worthy addition to traditional markets in Europe and North America. Real estate transparency has continued to improve steadily at a sub-national, national and international level. Globally, transparency scores have advanced by 2.4% on average in the past two years according to data from the JLL Transparency Index[8].

This increasing transparency has improved the investment climate for real estate markets. Several emerging countries are moving towards more developed status and therefore offer an addition to investments in Europe and North America. When these real estate markets meet the level of requirements in terms of institutionalisation, transparency and compliance measures, they become attractive for investment.

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7   Deskmag, 2016 co-working forecast.
8   JLL, Global Real Estate Transparency Index 2016.

3 The challenges of continuous urbanisation

Urbanisation boosts population and economic growth but also creates a number of challenges that local authorities and real estate players need to address to achieve truly sustainable development. We believe the metropolitan areas that deal with these issues effectively and sustainably will be the most successful in the long term.

All city stakeholders, including real estate investors, need to consider these risks and challenges. Stakeholders need to work closely in a continuous and systematic manner to address these challenges and to manage the impact of urbanisation. This means the real estate sector will play a pivotal role in shaping the metropolitan areas of the future.

The main risks centre on:

- Infrastructure
- Population density and health
- Land scarcity

Infrastructure

With large numbers of people flowing into urban areas at an unprecedented rate, city infrastructure is both essential and challenging. Facilities like schools, hospitals, sanitation and roads are crucial for ensuring a good quality of life and a prerequisite for economic opportunities. In terms of risks, city infrastructure will have to mitigate environmental, health and economy-related risks.

Infrastructure may not be able to keep up with the pace of population growth. Infrastructure projects can be complex and a typical project may take five to seven years to realise, while infrastructure demands can change swiftly.

Because these projects take so long, the outcome may no longer meet stakeholder requirements once completed. This paradox can be difficult to manage, especially in rapidly growing urban areas. Again, forward thinking cities and metropolitan areas are far more likely to deal with these issues effectively. Any major infrastructure projects need to take into account long-term growth forecasts.

Another potential issue on this front is financing. For instance, the Programme for Infrastructure Development in Africa (PIDA) calculated that the African continent needs to invest around $90 billion annually to renovate or build infrastructure[9]. Only around half of this investment has been raised, which leaves a vast financing gap. With countries under tight budgets, an intensification of public-private collaboration might offer a solution.

9   World economic forum, 'City Limits: The Risks of Rapid and Unplanned Urbanization in Developing Countries' 2015.

Population density and health

Urbanisation will have an impact on commercial space but the effect on residential real estate will be even greater. At the same time, however, uncontrolled population growth may result in poor quality of life due to overcrowding, pollution or smog problems. Lack of waste management can also accelerate the spread of disease and once the disease spreads, the impact can be devastating. The dense nature of city centres might aggravate severe health issues.

Unfortunately, some of the most rapidly urbanising areas in the world have not yet developed adequate control mechanisms. Efficient and smooth collaboration between national and local governments is vital.

Land scarcity

In some global metropolitan areas, the supply of affordable housing is under pressure and inner city inhabitants have to put up with more restricted living space, at the expense of liveability. This is leading to the creation of new concepts, such as sharing concepts or smaller floor plans. However, there is also a maximum price people are willing or able to pay for these alternative concepts. Therefore initiatives supported by local governments are needed to ensure a healthy liveability residential balance for all age groups in the city.

In case of the polycentric city, city planners must create sufficient balance in each individual centre to ensure liveability and a healthy mix of social groups. Some examples of issues that need to be addressed are public safety issues in some suburbs and ghost neighbourhoods after office hours due to too many offices and too little mixed-use real estate.

In recent years, house prices have outpaced income growth in a large number of metropolitan areas. This means an increasing percentage of household income is spent on housing costs. In the most recent publication of UBS's Global Real Estate Bubble Index[10], metropolitan areas like Hong Kong and London show very low housing affordability. In Hong Kong, a skilled knowledge worker needs around 20 years of professional experience before he or she can buy a 60 m² apartment near the city centre. Hong Kong housing prices fell in 2016 and look likely to drop further, on the back of falling demand and sales and a huge pipeline of new-build developments. This could lead to better affordability in the medium term. In general, most countries have seen housing prices rise in recent years due to very low mortgage rates.

Figure 10: House price-to-income ratios metropolitan areas

PERCENTAGE
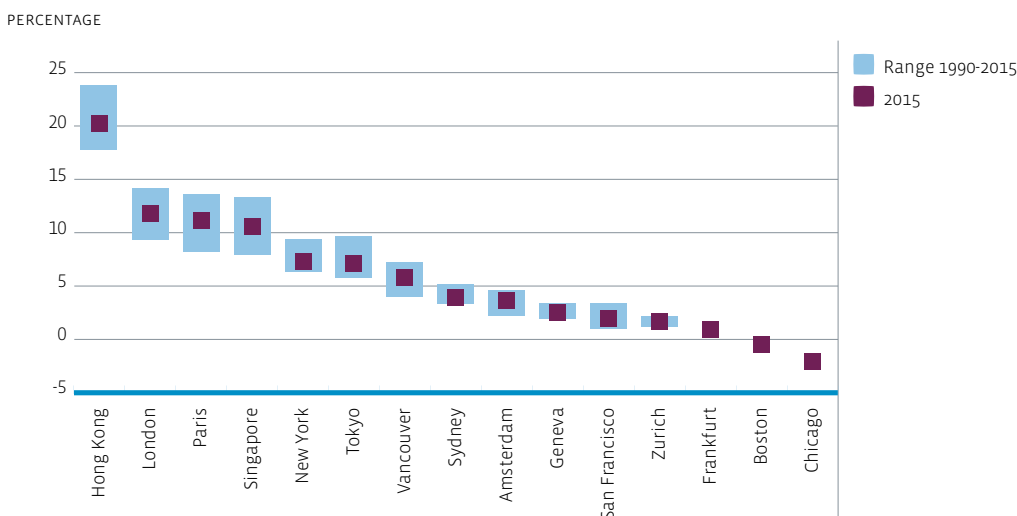
Source: UBS (2015) and Bouwinvest Research (2016)

10   UBS, 'Global real estate bubble index' 2016.

Housing development was slow to recover from the financial crisis in some markets, especially in Europe, partly due to the scarcity of financing. However, urbanisation continued to dramatically change the urban landscape.

These opposing forces led to an imbalance and housing shortages in some markets. Development is unlikely to flourish in a housing market with falling house prices. In short, housing affordability might improve when prices fall, but a housing shortage could potentially become an even greater problem. This is especially troubling for metropolitan areas that are limited by natural boundaries, such as rivers or mountains, and have little focus on infrastructure. These urban areas may face more difficulties in developing towards a polycentric city.

Mayors address global urban challenges
In September 2016 mayors from cities from all over the world convened in The Hague to celebrate the founding of the Global Parliament of Mayors.

The aim of this new platform is to enable cities to cooperate and address global challenges. At the inaugural meeting, mayors, experts and organisations focused their efforts on crafting real solutions for migration and refugees, climate change and governance.

The Global Parliament of Mayors is based on the ideas Benjamin Barber introduced in his book 'If Mayors ruled the World'. Barber asserts that cities, and the mayors that run them, offer the best new forces of good governance. Cities are already home to more than half of the world's population and are the primary incubator of the cultural, social and political innovations which shape our planet. Cities can offer local ideas and best practices to support and accelerate global answers in an ever-interdependent world.

# 4 Understanding investment opportunities

Globalisation and improving transparency is leading to an even bigger institutional real estate market and a huge supply of data. Investors have never had more investment opportunities. This makes a balanced method for the analysis of these possibilities essential to assure feasible and sustainable real estate investments.

Bouwinvest REIM uses several internally developed tools to identify upcoming opportunities and risks in real estate markets. One example is the 'Global Market Monitor' (GMM), which is used to monitor an elaborate set of sector-market combinations. This proprietary tool is used in several phases of the investment process.

The Global Market Monitor (GMM) provides a relative ranking that gives insight into the investment attractiveness of sector-market combinations taking into account three central themes (see figure 11):

• Demographic and economic performance
• Market investability and stability
• Real estate (occupier and investment market) outlook

Figure 11: Global Market Monitor example
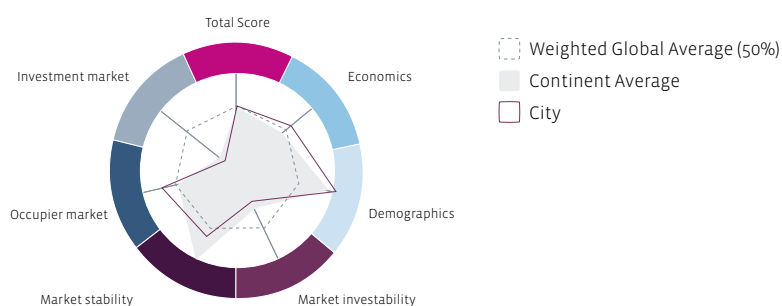
Source: Oxford economics, PMA and Bouwinvest Research (2016)

Demographic and economic performance

A sound economic and demographic base is essential for real estate investments. A balanced and diverse employment supply and demand can contribute to economic growth.
Employment consequently means people generate income that supports consumer spending. In this theme, the GMM helps to monitor variables such as economic, population and employment growth.

All of these factors are important for the economy of metropolitan areas but factor weighting is different in the various real estate sectors.

In terms of retail, consumer spending is more important than population growth. Employment growth is especially beneficial for office investments and trade volumes are more likely to impact logistics than other sectors.

Figure 12: Average annual city population growth forecast 2016-2020
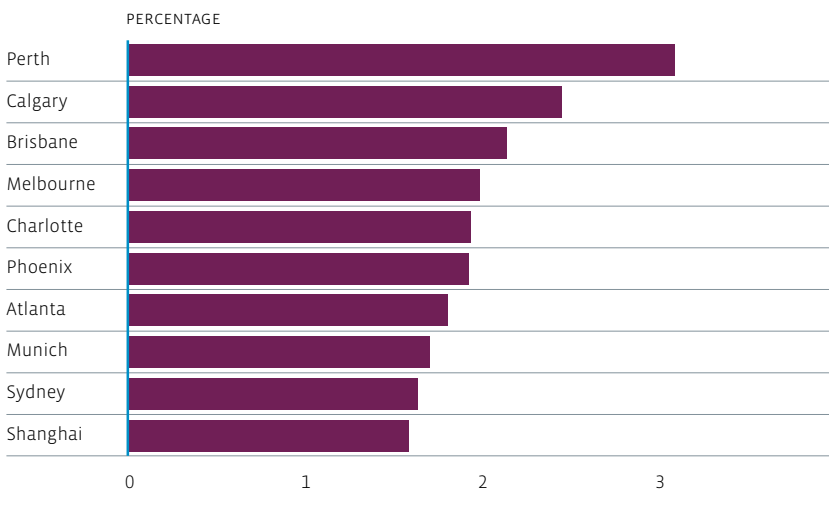
London is excluded because Brexit scenarios are too dispersed to include a most likely scenario.
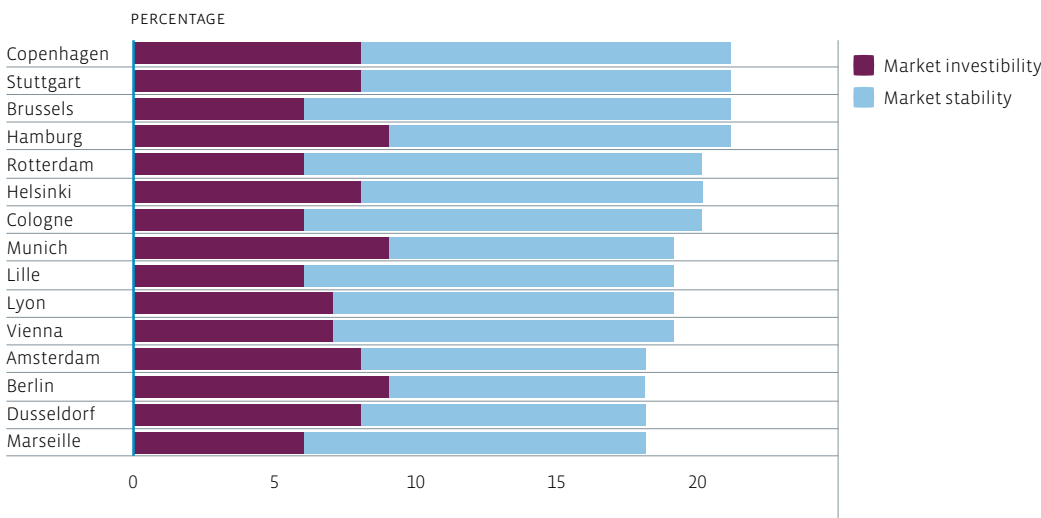Source: Oxford Economics and Bouwinvest Research (2016)

Market investability and stability

The second central theme looks at market investability and market stability. Figure 13 shows the top-15 European office cities of this theme. Market investability takes into account factors such as the Competitiveness Index[11], transparency and the standard of living. In short, companies and people must be willing to live and do business in metropolitan areas. With respect to market investability and stability, Copenhagen leads the European rankings, closely followed by Stuttgart, Brussels, Hamburg and Rotterdam.

London is currently the subject of intensive and extensive debate in the political arena, which will have a direct impact on business based here. Only the future will tell what impact politics will eventually have on the city's business climate.

Figure 13: Market investability and stability European top 15 ranking

London is excluded because Brexit scenarios are too dispersed to include a most likely scenario.
Source: Oxford Economics and Bouwinvest Research (2016)

A high level of transparency is essential for business to flourish, to take advantage of opportunities and to calculate risk with any real reliability. The Jones Lang LaSalle (JLL) transparency index (2016) provides an overview of transparency levels at country level. The world's developed economies dominate the index, with Scandinavian countries performing particularly well. Developing countries like China and Brazil are ranked lower, but are improving more rapidly than average countries.

Market stability takes into account factors with a greater focus on real estate markets. Long-term investors prefer markets with below-average market fluctuations. This theme incorporates the standard deviation of rental growth, capital growth and total return.

11 The competitiveness index of the Economist Intelligence Unit (EIU) is a broad collection of criteria at city level. The collection is summarised in a ranking, which puts the global competition for multinationals and knowledge workers in perspective

13 Mercer, 'Quality of living index 2016', downloaded on the 7th of June on http://www.mercer.com/newsroom/western-european-cities-top-quality-of-living-ranking-mercer.html

Another component of market investability, people, is captured by Mercer's[12] quality of living ranking (see figure 14). This puts some of the global leading business metropolitan areas in a more qualitative perspective.

Smaller metropolitan areas in Central Europe, like Zurich and Vienna, are the top performers on this front. In North America and Asia-Pacific, cities like Vancouver, Auckland and Sydney are amongst the top ranked locations.

Figure 14: Top 10 quality of life ranking
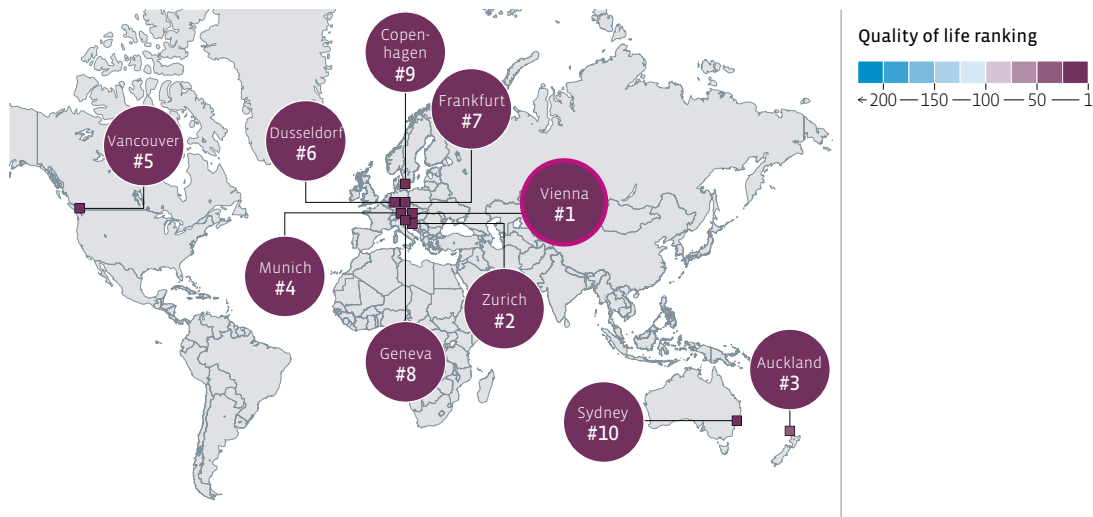
Source: Mercer and Bouwinvest Research (2016)

12 Mercer, 'Quality of living index 2016'.

Real estate performance outlook

Real estate returns can vary to a great extent between markets. Where fundamental drivers differ, so do real estate cycles. In addition, fundamental trends can be of a short or long-term nature. The most important long-term movements are typically of an economic or demographic nature.

City economies can change over the years. San Francisco with its proximity to Silicon Valley is a prime example. San Francisco was one of the first cities to transform into a tech city and has been supported by above-average economic growth. Detroit, by contrast, has been hit heavily by the sharp decline in the automotive industry. Demographic trends are also a key element in real estate feasibility and can be seen as one of the most important drivers for real estate demand.

The forecast decline in the populations of Japan and Germany are threats to their real estate markets and therefore require a different focus. On the other hand, the end of the one-child policy in China may give an additional boost to the Chinese real estate market in the long run.

Timing is crucial

Real estate cycles are shorter than most demographic trends. An imbalance in the occupier or investment market will change more quickly, with global and local companies responding ever more rapidly. Investors prefer to increase exposure in the cyclical upswing and downsize allocation in downswings. However, the practice is more complex.

Firstly, timing in the occupier and investment markets (and the general economy) varies, so it can be hard to estimate whether real estate returns will decrease or increase. Secondly, it can be hard to determine the exact phase in the cycle, which is important to assess fund and real estate strategies.

Thirdly, acquiring or selling market exposure can be difficult, especially in bear markets where there is less liquidity, so it might be hard to find alternative opportunities. On the sell side, it might be challenging to find a buyer without a loss of return.

Depending on the investment strategy, investors look for direct or indirect returns or a combination of both. Total return is divided in direct and indirect returns. Direct returns are determined by rent, occupancy and exploitation costs. Indirect returns are composed of rental growth and yield compression. These last two components determine property value changes.

Markets and their investment timing are components that determine a required return for standing and new investments. The yield gap can be indicative for timing in real estate markets. The yield gap is the difference between the initial yield of a real estate investment and the yield on local 10-year government bonds. In fact, it is the risk premium related to real estate investments. Although real estate prices have risen due to high investment volumes in recent years, especially for core real estate globally, markets still look relatively attractive on a yield gap basis (see figure 15).

Figure 15: Prime yield gap office markets in historical perspective

Source: PMA and Bouwinvest Research (2016)

Short and long-term factors

However, yield gap analysis is a rather static way to look at investments, as it focuses solely on the first year of the investment. From the end of the first year onwards it is important to know what expectations are regarding the direct (income) and indirect (valuation) returns.

In a positive scenario, one might be able to record rental growth and yield compression. This will support indirect returns. In a less positive scenario, rents can fall and declining interest from investors might lead to an expansion of yields. This would decrease investment value.

The impact of rent

Rents are an important factor in returns. The variance in rents differs in various markets, but to a large extent (mature) markets are expected to perform around their long-term average.

In tight markets, rents will be relatively high due to subdued supply. In this case, developers react by increasing the planning of new builds or redevelopments until demand is met. As a result, rents stabilise. Once the market is oversupplied, rents will fall to balance out again at the start of a new cycle.

Figure 16 shows prime real rent indices of several office markets in a historical perspective. Most markets have real rent levels around their historical average. Other markets have yet to fully recover and may see above average rental growth in the next few years.

For an accurate timing of a real estate investment, investors must consider the phase of both the occupier and investment market and the corresponding real estate strategy. When these three are timed well, forecast returns should rise above required returns.

In a fast paced world, it is essential to track data and understand trends to achieve strong investment performance. Megatrends are changing the real estate investment world rapidly. In order to adapt to these changes, investors need to comprehend and monitor megatrends and to focus on flexibility in order to execute appropriately. Data collection and analysis are crucial.

Figure 16: Prime real rent index (incl. incentives) office markets 2007-2016 (2010 = 100)
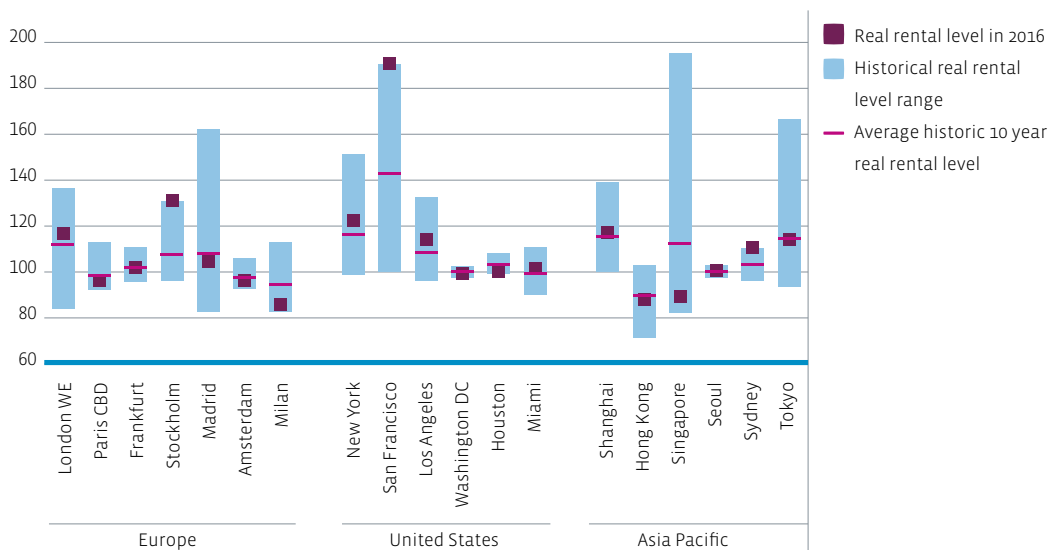
Source: PMA and Bouwinvest Research (2016)

Conclusion

Metropolitan areas present a huge opportunity for global real estate players and they provide a solid basis for a well-diversified real estate portfolio. However, growth and prosperity come with a number of risks and challenges. Liveability, affordability and the impact of urbanisation will be key in this.
A diversified international portfolio of metropolitan areas ensures more return with less risk. However, investors should focus on those metropolitan areas that are able to cope with risks related to rapid urbanisation.

About Bouwinvest REIM

Bouwinvest Real Estate Investment Management BV (REIM) is one of the largest Dutch institutional real estate investment managers. Our Amsterdam-based team of over 140 professionals manages total assets of € 8.2 billion (YE 2016) in five Dutch property sector funds and international real estate investments.

Bouwinvest REIM has its roots in the Dutch pensions fund industry through the management of the real estate assets of the construction workers pension fund (bpfBOUW) since 1952.

Bouwinvest REIM provides its anchor investor bpfBOUW with strategic asset allocation advice and investments in listed and unlisted real estate funds in Europe, North America and the Asia-Pacific region. In addition, the Dutch portfolio comprises five sector funds: a Residential Fund (the largest of nearly €4 billion), a Retail Fund and an Office Fund – all open to domestic and international institutional investors – plus Hotel and Healthcare funds.

Our experienced teams have expertise and deep local knowledge in investment management, asset management, acquisition, disposition and development.

There will always be a need for real estate for people to live, work, shop and stay and at the same time the asset class fulfils a range of key requirements for institutional investors. Property investments are able to provide stable long-term returns from rental income, while offering diversification by sector and location, as well as an excellent inflation hedge. Astutely selected real estate assets that are actively managed will generally increase in value and generate steady indirect returns over many years.

Future proofing our investments lies at the heart of what we do. The real estate world is being increasingly driven by corporate and socially responsible investing principles so Bouwinvest REIM integrates CSR into all its investment decisions. We also believe that by staying abreast of fast-moving social and technological change we can ensure that our investments will stand the test of time.

The combination of a strong domestic focus and a well-diversified global portfolio gives Bouwinvest REIM a broad perspective on the real estate investment markets and allows us to identify quality investment opportunities that others may miss.

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