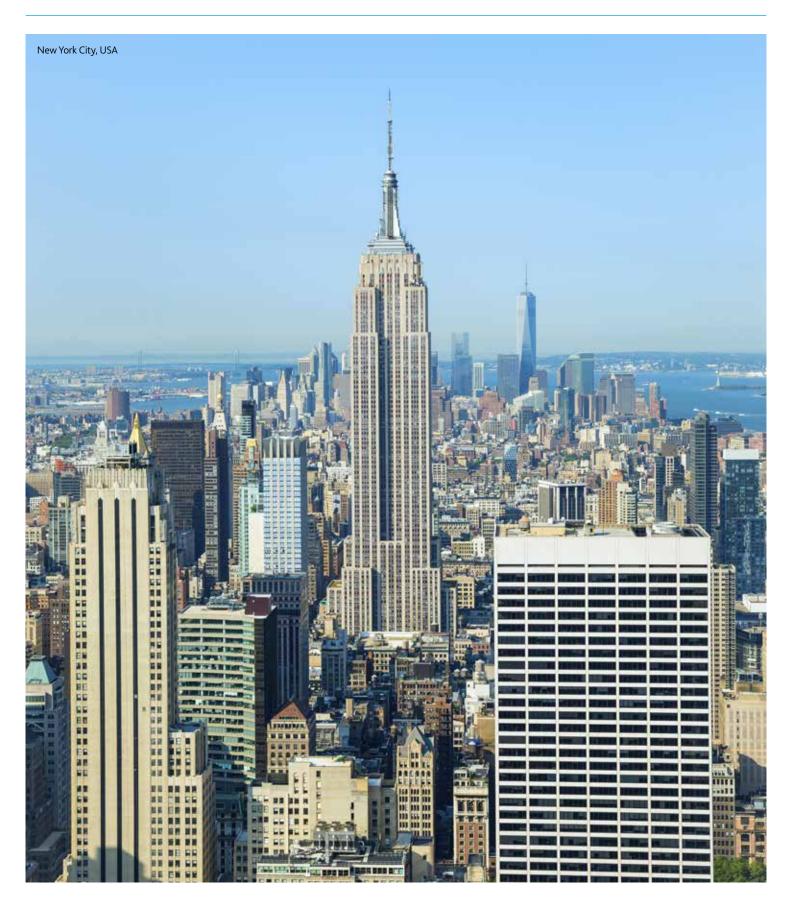
How to invest in property in global "winning cities"

Given that offices are commonly favored despite exhibiting volatility and underperformance 2015







Executive Summary

- Investors correctly assume there is something very appealing about some of the world's most prominent cities, often referred to as "gateway" cities. These cities are experiencing rapid population growth and increasing affluence, attracting both capital and highly skilled employees on an increasingly international basis.
- However, we are concerned about the approach typically taken by
 property investors. Such investors often specify that they have low risk
 tolerance and that they are long-term investors. However, they appear
 to take a much higher level of risk by focusing on the office sector
 exclusively, encouraged by the ease and familiarity of investing in this
 sector. The office sector has significantly underperformed over the
 longer term, suffering from high levels of speculative development,
 high capex requirements and depreciation rates, a particularly volatile
 rental cycle and yields often forced down to unjustifiably low levels by
 huge inflows of international capital.
- Rapid population growth and increasing affluence typically lead to strong opportunities in the retail, residential and logistics sectors, which have delivered stronger performance and lower volatility than the office sector.

- Retail performs particularly well on average and performance can be particularly strong in luxury pitches and in gentrifying areas.
- It is a similar story for residential, where high levels of national and international immigration, as well as growing affluence, drive stronger capital value growth.
- Industrial/logistics is often overlooked, but with its very low-value land use, less stock tends to be developed, particularly in supply-constrained cities. Stock is often converted to other higher value uses resulting in capital uplift, while the remaining stock achieves stronger rental growth due to reduced supply. The sector can be viewed as an 'income-producing land' play.
- However, international investors may be willing to tolerate weaker risk-adjusted performance within the office sector given the benefits of the accessibility of stock, large lot sizes, ease of asset management and liquidity. Such investors are often willing to hold for the long term, making the volatile nature of such markets less of a concern.

03 of 12

Introduction

The world is becoming increasingly urbanized, with a rising number of "megacities" that are experiencing rapid growth in both population and affluence in both the developed world and emerging markets. The world's gateway cities are very appealing to property investors and appear to be a magnet for international capital. While there are common, shared characteristics across the world's gateway cities there are also pronounced differences, particularly in the key variable of supply constraint (or lack of it).

A consistent analytical approach for these markets is required and we have therefore sought to identify the relevant countries and cities and, most importantly, the strategies which we feel are the most appropriate.

In our research we have created a global classification of the countries and their major cities – in essence to determine an analytical framework to evaluating property investments in cities around the world. However, more important is the subsequent implication for investment strategies. Of particular note, we believe our analytical framework points to real estate sectors other than offices.

Quite simply, we see a global synchronization of capital flows seeking similar investments across similar markets as a reason for concern as investors are not protected by the consensus they form. The evidence suggests that the consensus gets it wrong and we wonder if it is the case that such investors have lost sight of the characteristics that attracted them to the largest "winning cities" in the first place. In essence it is population expansion and increasing affluence and the requisite needs that they create in the retail, residential and logistics/industrial sectors.

1. Identifying the universe – which countries?

- The first stage involved constructing a proprietary "investability quotient" for 196 countries globally which comprises a variety of variables, including the legal and regulatory framework, political stability, economic volatility, presence of investable stock/funds, investment freedom and sovereign strength.
- Eighty countries passed the investability test. Countries which fell below this cut off are viewed as too high risk for property investment. Such countries include Egypt, India, Nigeria and the Philippines.
- These countries contain large and rapidly growing cities, but have issues sufficient to discourage investment in property.

2. Identifying the universe - which cities?

- The next stage involved constructing a matrix, which identified 96 cities among the 80 countries that offer some of the most attractive prospects for investment.
- We have focused on seven key factors: population growth, aggregate gross domestic product ("GDP"), projected growth, quality of life, infrastructure, transparency/investability and supply constraint.
- Population was given a fairly low weighting; a higher weighting was attributed to GDP and projected growth.
- An aggregate score is shown in Figure 1: London scores well on all factors.

Figure 1: Winning city scoring matrix, ranked from strongest to weakest (rank 1 = strongest; 100 = weakest)

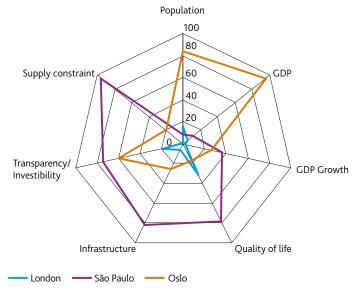


Source: Aberdeen Asset Management, July 2014. For illustrative purposes only.

- Tokyo also performs well on almost every measure with the exception of investability, where it is marginally weaker than London.
- · However, some major cities struggle on selected indicators.
- For example, Shanghai is hindered by investability, quality of life and supply constraint.
- Mexico City struggles on all these indicators as well as infrastructure.
- Other large cities that score poorly include New Delhi, Santiago, Bangkok and Moscow.
- Some markets, such as Oslo, Stockholm, Singapore, Toronto and Vancouver, while achieving low scores for population and size (aggregate GDP), score very well on the other factors.
- Figure 2 provides more detail on scoring of the individual factors.
 London scores well on all factors. Sao Paulo, despite scoring well on size and growth, struggles with supply constraint, transparency, investability, infrastructure and quality of life.

Figure 2: Sao Paulo struggles particularly on lack of supply constraint, also infrastructure and investability.

Oslo struggles on size and investability



Source: Aberdeen Asset Management, Mercer, Economist Intelligence Unit, Jones Lang LaSalle, Brookings Institute, December 2014. For illustrative purposes only. Rank 1=strongest, 100=weakest.

London achieves the highest score of any "winning city"

- We are loath to claim that any one city is "better" than another, as our investment process emphasizes the importance of security selection.
 However, New York and Paris are second and third, respectively, with Tokyo, Hong Kong, Singapore and Sydney also in the top 10. These cities score well across the board; notably they benefit from supply constraint.
- · London scores particularly well for a variety of reasons.
 - It is not only large (as measured by its GDP), but also scores well in terms of growth.
 - London's population grew by a million between 2001 and 2011 and is projected to increase by a similar amount between 2011-2021.¹
 - This could be viewed as emerging market growth in a developed world economy.

- London attracts qualified talent on both a national and international basis: 37% of the population were born overseas, 302 languages are spoken, and there are 50 non-indigenous communities with a population of more than 10,000.²
- A third of UK graduates move to London, with a higher proportion from the best-quality universities.
- London's dominance over other UK cities is growing.²
- 80% of all UK private sector jobs created between 2010-2012 were in London: 215.000.²
- The next-best city was Edinburgh, with just 23,000, while the number of jobs in Bristol, Glasgow and Sheffield decreased.²
- Other successful cities are attracting talent on a national basis for example, Amsterdam, Stockholm and Oslo all attract migrants from other parts of the country, which may experience lower population and economic growth as a consequence.
- However, few can match London's ability to attract people on a global basis. New York is perhaps its closest competitor, with Hong Kong, Sydney and Singapore also strong in this area.

Supply constraint is vital, but often overlooked

- Supply constraint is often ignored in most analyses which focus on the demand side.
- These constraints can be either geographical (islands like Singapore and Hong Kong, or mountains/sea in Vancouver) or in the form of planning controls ("green belts" like London, or development restrictions due to a historic/low rise nature like central Paris).
- Cities that have supply constraint in conjunction with strong demand can experience very strong rental or capital growth.
- Cities which lack this supply constraint may not experience the rental/ capital growth that their demand side would suggest.
- An example of this trend is the Warsaw office market (figure 3).
- Poland has experienced the strongest economic growth of any European economy over the past 20 years, but Warsaw office rents have fallen over the long term as there has been very little supply constraint.
- Another example is Sao Paulo (figure 4).
- Economic growth in Brazil has also been very strong; however, the lack
 of supply constraint in Sao Paulo has meant that office development
 levels as a percentage of stock are the highest of any major city in the
 world, with construction volumes at almost 30% of the existing stock
 level, and 96% of this speculative. Prime office rents in Sao Paulo are
 currently falling.

¹ Forecasts are offered as opinion and are not reflective of potential performance. Forecasts are not guaranteed and actual events or results may differ materially.

² Bloomberg, Centre for Cities, December 2014.

Figure 3: Lack of supply constraint means growth does not translate into performance

Prime office rents, Warsaw & Polish GDP (Real USD) 300 250 200 150 100 50 0 Q2 Q2 Q2 Q2 Q2 02 02 02 2002 2008 1993 1996 1999 2005 2011 2014

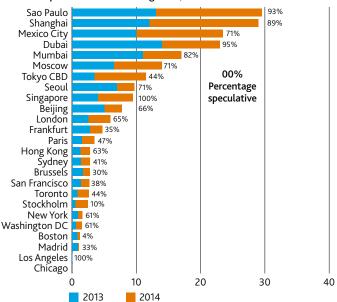
Source: Aberdeen Asset Management, July 2014. For illustrative purposes only.

Poland GDP

Poland has been Europe's best-performing economy over the past 20 years, but the worst-performing in terms of office rental growth.

- Warsaw Office Rents

Figure 4: Supply constraint: lacking in many emerging markets Office completions as % of existing stock, 2013/14



Source: Jones Lang LaSalle, July 2013. Covers all office submarkets in each city. For illustrative purposes only.

Sao Paulo rents are falling, as demand has slowed and supply is very strong.

"Winning cities" also attract capital – the "Lucas paradox"

- These "winning cities" attract not only people but also capital.
- The "Lucas paradox" reflects the tendency for capital to flow into the developed world (for example, from China and the oil-rich Gulf states), rather than to emerging markets seeking higher returns as economic theory might suggest.
- According to Jones Lang LaSalle, the three property markets with the largest capital inflows in 2012 were London, Paris and New York.
- Investors often export capital from countries with poor or unreliable financial information, unfamiliar regulatory environments and unstable political climates to perceived safe havens in the form of either commercial or residential investment.
- We are aware that such investors have different motivations to domestic institutional investors.

Major transport schemes reinforce their dominance

- Major transportation systems, such as Crossrail (London), Grand Paris and the Guangzhou–Shenzhen–Hong Kong Express Rail Link, drive further growth in these cities.
- These systems can effectively expand the labor pool by increasing accessibility and thus drive regeneration.
- For example, the Jubilee Line extension in London has been instrumental in developing Canary Wharf, regenerating the South Bank and Greenwich peninsula and improving access to the Olympic site at Stratford.
- A common theme of successful cities is the quality of public infrastructure.

3. Implications for property investment

Our view is that the strongest prospects lie in the residential, retail and industrial/logistics sectors, while the office sector, which has historically been most favored by international investors, is the least compelling.

Residential is often the strongest performer – everyone needs somewhere to live

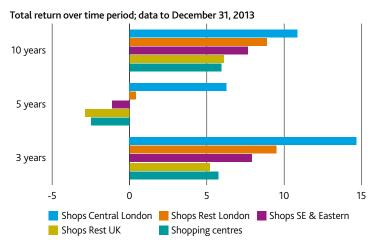
- Residential performs very well in "winning cities" (figures 5, 6 and 7), being the best performer in Sydney and London and second-best in Hong Kong.
- This performance is driven by strong rates of population growth as
 highly qualified young professionals are attracted by job opportunities
 and the lifestyle/cultural attractions available in these types of cities.
- Not only are such cities growing, their populations are becoming progressively younger (in turn, encouraging further population growth through higher birth rates) and more affluent.

- Vacancy rates for residential are effectively zero, while for offices they typically range between 8-20%.
- Much more land is required per capita for residential purposes than for retail, office or industrial.
- Cities with supply constraint can benefit from particularly strong capital value growth, especially in gentrifying areas.
- These gentrifying areas often experience the fastest rates of residential house price growth, as many affluent young professionals want to live in fashionable locations close to the city centre.
- Many of these areas experience capital growth from a relatively low base, as they were often older industrial areas which have undergone gentrification.
- Cultural preferences are key, with these areas often more appealing to the young than the suburbs which were more popular in the inter-war and post-war periods in many European and American cities.
- Examples of such gentrifying areas include Clapham in London, Haight-Ashbury in San Francisco, Newtown in Sydney, Bedford-Stuyvesant in New York and Glockenbach in Munich.
- These cities have a large mobile workforce, made up of people who have often migrated to the city either nationally or internationally.
- Many are happy to rent, which has led to the evolution of a large, investable, privately rented sector in the majority of these markets.

Retail performs well, especially the "luxury" and "convenience" sectors – everyone is a consumer

- Retail's strong performance is driven by rapid population growth and increasing affluence.
- Retail in central London has strongly outperformed the retail sector in the rest of the country (figure 5).
- Luxury complexes in the largest "winning cities" can experience
 extremely strong rental growth, aided by the increase in international
 tourism as international brands compete for space in locations/pitches
 that are difficult to replicate.
- There is also typically strong performance in the gentrifying areas detailed above (figure 6), with such locations experiencing particularly strong population growth and increasing affluence.
- In London, Westfield has built two giant malls in such areas: Shepherd's Bush and Stratford.
- The most favored types of retail are at the extremes, those locations
 offering "experience" such as regional shopping centers and prime
 pitches at one end of the scale and necessity/convenience, such as
 supermarkets, at the other. In our opinion, much of the middle ground,
 such as non-dominant shopping centers and average main commercial
 or retail streets, should be avoided, as it is particularly vulnerable to
 loss of trade to dominant locations and online.

Figure 5: Retail: London retail has consistently outperformed the rest of UK.



Source: Aberdeen Asset Management, Investment Property Database, December 2014 PAST PERFORMANCE IS NOT AN INDICATION OF FUTURE RESULTS. For illustrative purposes only.

Figure 6: Retail: Gentrifying inner London has seen strongest rental growth

Rental growth 2000 - 2010 (%)

Outer London

Central London

Gentrifying inner London

0 20 40 60 80 100

Outer London

Central London

Gentrifying inner London

Source: Aberdeen Asset Management, December 2014. For illustrative purposes only.

Industrial/logistics can be viewed as an incomeproducing land play

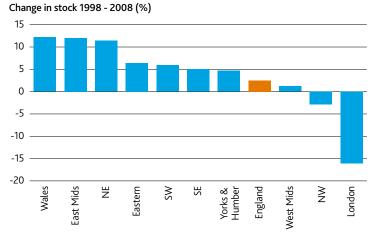
- The industrial/logistics sector is often overlooked but performs well in such cities, again especially with supply constraint.
- Greater land supply constraints in these cities mean that industrial/ logistics development is more difficult, often being squeezed out by higher value land uses; this often translates into stronger rental growth for the remaining stock.
- Units in supply constrained urban areas also have the potential for conversion to higher value uses, planning permission permitting.
- These include residential and offices or quasi-retail uses such as trade counters and car showrooms.
- They could be viewed as an "income-producing land play."
- In Amsterdam along the river IJ, former industrial areas have been converted to residential, hotels, offices and restaurants.
- A similar process has occurred in the docklands area in Copenhagen, Sydney, Melbourne and London.
- The outperformance of units in supply constrained urban areas is strongly evidenced by the example of London.
- London industrial has substantially outperformed all other UK regions over all time periods as measured by the Investment Property Databank (IBD), an MSCI company, (figure 7).
- Industrial stock levels have fallen, in contrast to the rest of the country (figure 7), as units are converted to other higher value uses (figure 8).
- The UK's regional cities are not experiencing the same rate of population and economic growth as London.
- Indeed, in some cities, such as Glasgow and Liverpool, population levels have been falling for decades.
- The same pressure for conversion of industrial land to higher value uses does not exist to the extent that it does in London.

Figure 8: Industrial: units in these cities can be converted to higher value uses

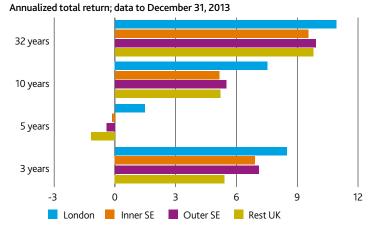


Source: Aberdeen Asset Management, December 2014. For illustrative purposes only.

Figure 7: Industrial in supply-constrained cities has consistently outperfored



Source: Investment Property Databank, Office of the Deputy Prime Minister UK, December 2013.



PAST PERFORMANCE IS NOT AN INDICATION OF FUTURE RESULTS. For illustrative purposes only.

Offices appear the least compelling sector, with a history of volatility and underperformance

- We believe investors often target the worst-performing sector, offices, due to its familiarity, liquidity, transparency, large lot sizes and the ease of investing in the sector. We have some sympathy with this but would urge investors to think more strategically.
- It can be relatively easy to invest \$100 million in an easily manageable single office asset with a single tenant, although almost impossible to do so in the retail, residential or industrial/logistics sectors.
- While offices are typically highly sought after, they tend to be both low-returning and volatile.
- The underperformance of offices relative to the other sectors has been pronounced. The examples illustrated in Figures 9, 10 and 11 in London, Sydney and Hong Kong, show that capital growth in retail and residential has been much stronger.
- Investors tend to overbuild and overpay for trophy assets in these markets, and so experience underperformance and volatility.
- Many investors also underestimate the high capex requirements and depreciation rates in the office sector.
- Offices have underperformed retail in all 12 European countries where IPD provides 10 years or more of history.
- Offices in second tier markets have also tended to outperform and be less volatile than the major gateway cities.
- One strategy for investors prepared to think long term may be to focus
 on the emerging areas of "winning cities" which eventually become
 established locations, such as South Bank, King's Cross, Broadgate and
 Canary Wharf in London. This may not be purely
 an office sector strategy, but could also involve the creation of new
 residential and retail schemes, as well as holding industrial stock
 in such locations as a long-term "income producing land play," as
 detailed in the industrial/logistics section.
- International investors may be willing to tolerate weaker risk-adjusted
 performance within the office sector given the benefits of the
 accessibility of stock, large lot sizes, ease of asset management and
 liquidity. Such investors are often content to hold for the long term and
 have different motivations to domestic investors, yet this does not
 make investing in gateway office markets less risky.

Figure 9: Offices are typically the investment route of choice, and the worst performer.

London offices are the clear underperformer; residential a clear winner

London residential and commercial capital value indices (1980 = 100)

1000

800

400

1980 1984 1988 1992 1996 2000 2004 2008 2012

London Residential

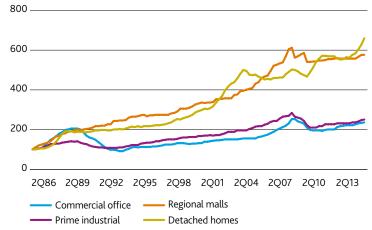
London Industrial

Central London Offices

Source: Nationwide, Investment Property Databank, December 2013. PAST PERFORMANCE IS NOT AN INDICATION OF FUTURE RESULTS. For illustrative purposes only.

Figure 10: Same story in Australia: offices underperform

Sydney residential and commercial capital value indices (1986 = 100)



Source: Jones Lang LaSalle, December 2013. For illustrative purposes only.

Figure 11: Offices also underperform in Hong Kong

Hong Kong residential and commercial capital indices (1981 = 100) 1800 1600 1400 1200 1000 800 600 400 200 1981 1985 2009 2013 Residential -Offices Retail —— Industrial

Source: Hong Kong Rating and Valuation Department 2013. For illustrative purposes only. PAST PERFORMANCE IS NOT AN INDICATION OF FUTURE RESULTS.

4. Conclusion: Not all growing cities are winning cities

The world's largest and fastest-growing cities can offer many opportunities to property investors; however, they exhibit very different characteristics. Some are particularly successful, attracting international labor and capital and experiencing strong growth and rapidly rising affluence.

Such cities usually have excellent infrastructure, quality of life, investability and transparency. The very best also have an element of supply constraint, whether physically or due to planning controls, and can deliver particularly strong performance. This factor is often overlooked.

However, it is key to recognize that the commonly used strategy of investing in office assets in "gateway" markets does not deliver the strongest risk-adjusted returns.

No doubt investing in office markets in "gateway cities" is familiar, liquid and transparent, but we believe these strengths are outweighed by volatility and lower returns, with high depreciation and substantial capex requirements. In addition, these office markets are prone to overinvestment and overdevelopment.

Rapid population growth and increasing affluence create strong opportunities in the retail, residential and logistics sectors, which have delivered stronger performance and lower volatility than the office sector.

We believe there are better opportunities in other sectors:

- 1. Retail: where performance can be particularly strong in luxury complexes, the convenience sector (such as food retailing), and in gentrifying areas.
- Industrial: which can be viewed as an "income-producing land play." Stock has the potential for conversion to other higher value uses resulting in capital uplift, while the remaining stock achieves stronger rental growth.
- 3. Residential: where high levels of national and international immigration drive stronger capital value growth, particularly in gentrifying areas.
- In our opinion, we suggest investors consider these sectors rather than focusing solely on offices.

John Danes Head of Continental European Property Research

At Aberdeen, asset management is our primary business.

Aberdeen Asset Management is a global asset manager founded in 1983 via a management buyout and a member of the London-based FTSE 100, one of the world's most widely-used stock indices. Today, we manage more than \$500 billion for institutional investors and private clients, as of December 31, 2014.

Our institutional clients include retirement plans, state and local governments, hospitals, insurance companies, Taft-Hartley plans, endowment and foundations, and other institutional investors and private clients. We engage with all clients using a consultative approach focusing on a rigorous investment discipline, risk control, and a commitment to transparency.

Global reach, local understanding

- We know global markets from the local level upwards, drawing on over 2,000 staff, across 33 offices in 25 countries.
- Our investment teams are based in the markets or regions in which they invest, bringing local knowledge backed by our global perspective.
- Investment teams champion original thinking and knowledge and base their investment decisions on extensive proprietary research.
- Close-knit teams, clear investment processes and flat hierarchical structures are important to us.
- We believe our focus, size and approach help us deliver effective investment advice and superior client service.
- We seek to grow institutional client assets in a way that is manageable and sustainable over the longer term.

For more information about how our global capabilities can help meet your investment objectives, contact our U.S. Institutional Business Development team by calling (215) 405-5700. Learn more about how Aberdeen invests around the world by visiting Aberdeen-asset.us/InstitutionalInvestor

Canadian investors are invited to call (416) 777-5570 and to visit **Aberdeen-asset.ca**



For further information please contact the relevant representative from your region

Roberto Varandas, Global Phone: +44 20 7463 6437

Email: roberto.varandas@aberdeen-asset.com

Chris van Beek, Asia Pacific Phone: +65 6395 2650

Email: chris.vanbeek@aberdeen-asset.com

Wolfgang Bernadzik, Germany, Austria and Switzerland

Phone: +49 69 768072189

Email: wolfgang.bernadzik@aberdeen-asset.com

Michael Dinsdale, UK Phone: +44 131 528 4116

Email: michael.dinsdale@aberdeen-asset.com

Jonathan Matson, North America

Phone: + 1 212 776 1175

Email: jonathan.matson@aberdeen-asset.com

Ibtissem Sfaxi, France and the Middle East

Phone: +44 20 7463 6146

Email: ibtissem.sfaxi@aberdeen-asset.com

IMPORTANT INFORMATION

PAST PERFORMANCE IS NOT AN INDICATION OF FUTURE RESULTS.

Issued in Europe by Aberdeen Asset Managers Limited which is authorized and regulated in the United Kingdom by the Financial Services Authority. Issued in Singapore by Aberdeen Asset Management Asia Limited, Registration Number 199105448E. Issued in the United States by Aberdeen Asset Management Inc., a registered investment adviser with the Securities and Exchange Commission. Issued in Canada by Aberdeen Asset Management Inc., registered as a Portfolio Manager in the Canadian provinces of Ontario, Nova Scotia and New Brunswick.

This document is strictly for information purposes and should not be considered as an offer or solicitation to deal in any of the investments mentioned herein.

The market or investment views expressed in this document do not constitute the provision of a personal recommendation nor are they intended to be read as research or other information recommending or suggesting an investment strategy, explicitly or implicitly, concerning financial instruments or the issuers of financial instruments or should they be read as an opinion as to the present or future value or price of any such instruments. This document does not constitute investment research, as defined under EU directive 2003/125/EC. Consequently, this document has not been prepared in line with the requirements of any jurisdiction in relation to the independence of investment research or any prohibition on dealing ahead of the dissemination of investment research.

Any research or analysis used in the preparation of this document has been procured by Aberdeen for its own use and may have been acted on for its own purpose. The results thus obtained are made available only coincidentally and the information is not guaranteed as to its accuracy. Some of the information in this document may contain projections or other forward looking statements regarding future events or future financial performance of countries, markets or companies. These statements are only predictions and actual events or results may differ materially. Readers must make their own assessment of the relevance, accuracy and adequacy of the information contained in this document and such independent investigations as they consider necessary or appropriate for the purpose of such assessment. Any opinion or estimate contained in this document is made on a general basis and is not to be relied on by the reader as advice. The information herein shall not be disclosed, used or disseminated, in whole or in part and shall not be reproduced, copied or made available to others.

Investments in property may carry additional risk of loss due to the nature and volatility of the underlying investments. Real estate investments are relatively illiquid and the ability to vary investments in response to changes in economic and other conditions is limited. Property values can be affected by a number of factors including, inter alia, economic climate, property market conditions, interest rates, and regulation

