

Trends for 2017

Global Real Estate Trends Set to Shape the Next 12 Months December 2016

Executive Summary

With the year drawing to a close, we turn our attention to the outlook and identify nine major occupier and investment trends that we expect to influence market conditions and investment performance in 2017 and beyond.

1. **More Election-Related Uncertainty:** There is more political uncertainty to come in 2017. While there is a potential impact on occupier activity in countries holding votes, any impact usually fades quickly.
2. **Occupiers Remain Cautious:** Global absorption remains sluggish compared to past cycles and we do not anticipate an acceleration in the near-term. Key office and retail occupier groups remain under pressure, while logistics markets are outperforming.
3. **Debt Constraints Holding Back Development:** Lenders are cautious about development projects despite elevated rents. Low supply growth is supporting the rental outlook, although there are risks in emerging markets.
4. **Investors Continue to Target Major Markets:** The share of capital going to major markets remains elevated. The gap in occupier performance is narrowing, but we do not anticipate a significant rotation of capital away from major core markets in 2017.
5. **Cross-Border Flows Edging Back Up:** Cross-border activity slowed in 2016, but stabilizing foreign direct investment growth and low returns correlations point towards a pick-up in 2017.
6. **Pricing Momentum is Slowing:** The pace of yield shift is slowing due to concerns about elevated pricing and limited scope for further compression in major markets that already have very low yields.
7. **Focus Turning to Income Growth:** Forecasts for rising bond yields point towards higher required returns for real estate. Investors will increasingly be on the lookout for income growth and we anticipate growing interest in value-add strategies.
8. **Growing Interest in Alternatives:** Investment in alternative real estate sectors is rising as investors look to tap into growth potential arising from favorable structural trends.
9. **Emerging Markets Attracting More Capital:** Expectations of an increasing gap with GDP growth in developed markets points towards rising investment activity in emerging markets.

Introduction

While we look ahead to 2017 with some optimism, it would be fair to say that 2016 has been something of a mixed year for global real estate markets. Financial market volatility and concerns about growth in China weighed on sentiment and activity during the early part of the year, before political events in the form of “Brexit” in the UK and the U.S. presidential election surprised markets in the latter part. Amid a sense of elevated uncertainty through much of the year, real estate capital flows have slowed, investment volume has pulled back and investment performance has cooled.

Encouragingly, financial markets appear to be adjusting and signs of distress are minimal. Uncertainty is higher than it was 12 months ago – forthcoming elections in major European countries carry a renewed significance in light of recent results – but the economic backdrop remains broadly supportive. Sentiment is holding up, and the global growth outlook is steady going into next year, as signs of improving momentum in emerging markets offset a deceleration in developed markets, where the impact of low energy prices on real incomes is starting to fade.

In real estate markets, leasing activity is slightly above its historical average, but occupier markets have repeatedly failed to spark into life, as cautious tenants continue to outweigh their more optimistic counterparts, limiting the expansion of demand. A similar pattern is playing out in investment markets, where activity among lenders and investors is slowing and there are few signs of investor appetite broadening significantly beyond core markets. The pace of yield compression has eased, owing to declining investment volume and concerns about elevated pricing, and real estate returns are moderating.

Led by the United States, global bond yields have started to increase from a historically low level. Expectations that bond yields will increase further point towards higher required returns on real estate investments. When we look ahead to the next 12 months and beyond, capital flows towards major core markets look set to remain elevated, but we anticipate a greater focus on income growth, which points to value-add strategies, alternative real estate assets and emerging markets all gaining in popularity.

Trend 1: More Election-Related Uncertainty

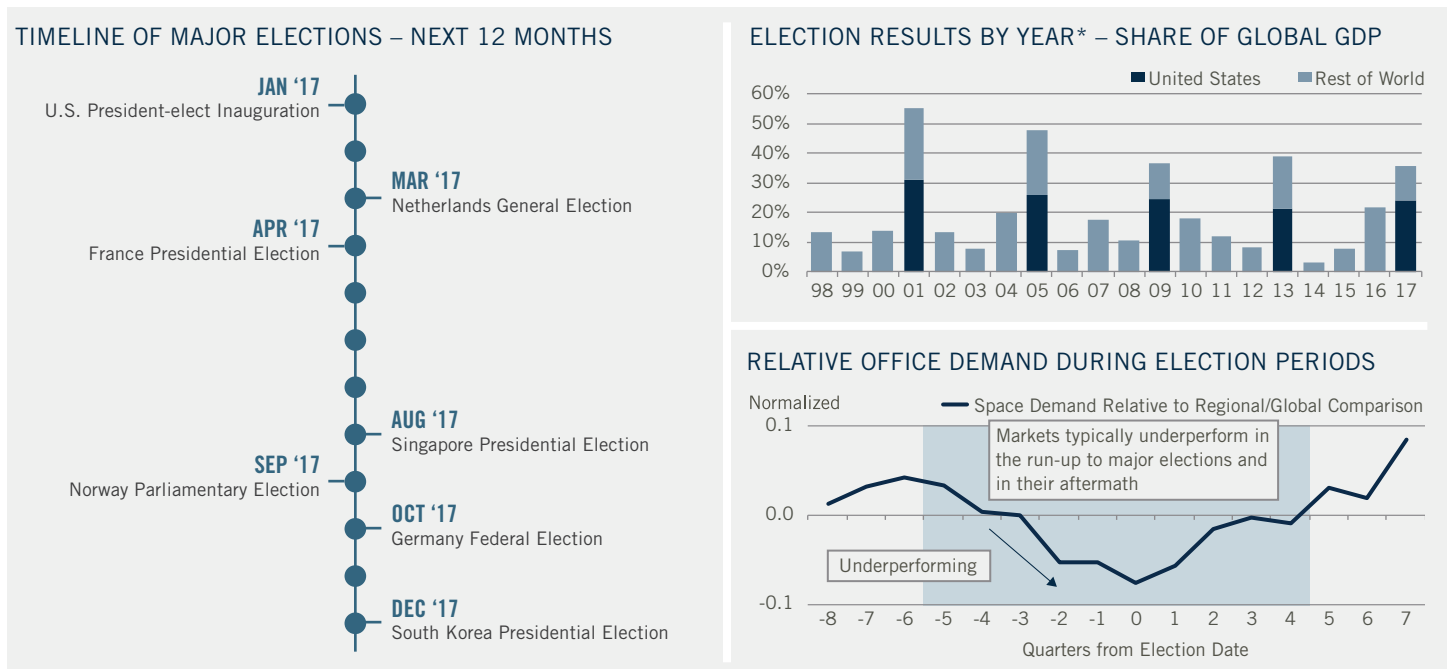
There is more political uncertainty to come in 2017. While there is a potential impact on occupier activity in countries holding votes, any impact usually fades quickly.

Markets have been surprised by a series of unexpected political results recently, most notably in the form of Brexit and the U.S. presidential election, although similar trends are also influencing other major countries. In Europe, populist parties are gaining traction, diminishing the support base of traditional parties and affecting election outcomes, most recently in Spain, which has struggled to form a working government after a series of indecisive votes, and Italy, where the government was defeated in an important constitutional referendum.

After a busy 2016, there is more election uncertainty to come, beginning in January, when the U.S. President-elect is due to be inaugurated (Exhibit 1). In total, the results of major political elections will be implemented in countries comprising one third of global GDP next year, with France, Germany, Netherlands, Norway and South Korea all set to go to the polls. If recent outcomes are anything to go by, electoral processes will cause further disruption – at least in the run-up to voting – while results will remain hard to predict.

In total, the results of major political elections will be implemented in countries comprising one third of global GDP next year.

EXHIBIT 1: GLOBAL ELECTION CALENDAR AND REAL ESTATE IMPACT



*The United States is shifted forward one year as inauguration of the new President takes place in January following a November election.

Note: Stated election dates are provisional. Sources: Electionguide.org, Oxford Economics, PGIM Real Estate; As of December 2016.



One lesson from 2016 is that markets are capable of taking unexpected results in their stride, so there is no reason to be unduly concerned about the glut of voting through 2017. However, an analysis of historical office market performance suggests that uncertainty surrounding elections does affect occupier market activity. Countries that are holding major national votes are likely to report weaker space demand – compared to regional and global performance benchmarks – in the run-up to the election date and in its aftermath. However, any performance effect usually fades after two quarters, suggesting the impact on markets next year will be contained, despite a large number of forthcoming elections.

Trend 2: Occupiers Remain Cautious

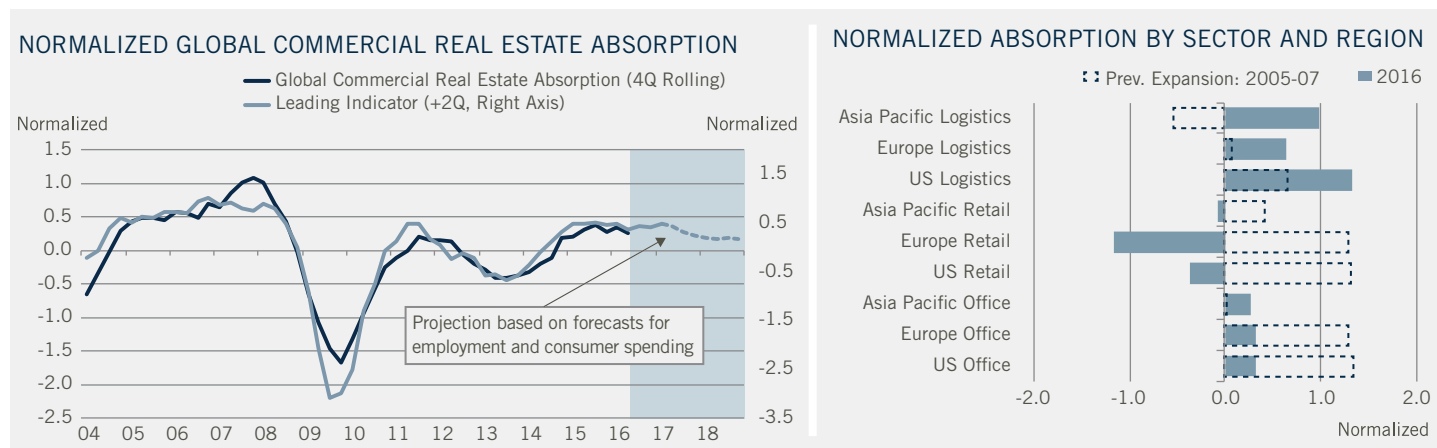
Global absorption remains sluggish compared to past cycles and we do not anticipate an acceleration in the near-term. Key office and retail occupier groups remain under pressure, while logistics markets are outperforming.

On the whole, global occupiers remain cautious, partly reflecting the impact of political uncertainty, along with other factors such as persistently low productivity growth across developed markets. Global commercial space absorption is currently running slightly above trend – indicated by a positive reading on our normalized measure – but remains sluggish compared to expansion phases of past cycles (Exhibit 2).

Our simple leading indicator, which combines timely information on hiring intentions and consumer activity, is tracking sideways and points to modest demand continuing into the first half of 2017. Projecting our indicator forward, using forecasts for employment and consumer spending, shows that a sharp increase in occupier demand is unlikely in the near-term. We do not anticipate the kind of acceleration that would take space absorption back to levels recorded prior to the global financial crisis, between 2005 and 2007.

Global commercial space absorption is currently running slightly above trend – but remains sluggish compared to expansion phases of past cycles.

EXHIBIT 2: GLOBAL COMMERCIAL REAL ESTATE DEMAND



Note: Commercial real estate covers office, retail and logistics. Leading indicator constructed from major services hiring intentions surveys and indicators of consumer demand. Sources: Cushman & Wakefield, CoStar, JLL, PMA, Eurostat, Manpower, Oxford Economics, PGIM Real Estate; As of December 2016.



Part of the reason that demand compares poorly to previous cycles is that certain key occupier groups remain under pressure. In office markets, absorption is slightly above its long-term average and some markets – such as Berlin, Boston and Melbourne – are reporting strong tenant demand compared to historic norms.

In general, though, office absorption compares poorly to the previous expansion phase recorded between 2005 and 2007. Leasing activity among finance occupiers and finance-related activities, such as legal and accounting, remains subdued, while government-related tenants continue to be cost sensitive. Instead, many markets are relying on IT and lower value-add services – not typically seen as high-rent paying CBD occupiers – as a source of demand growth.

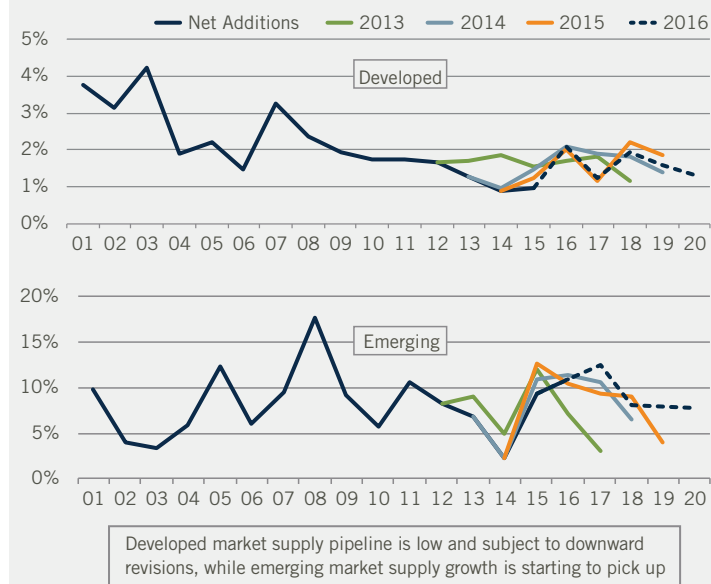
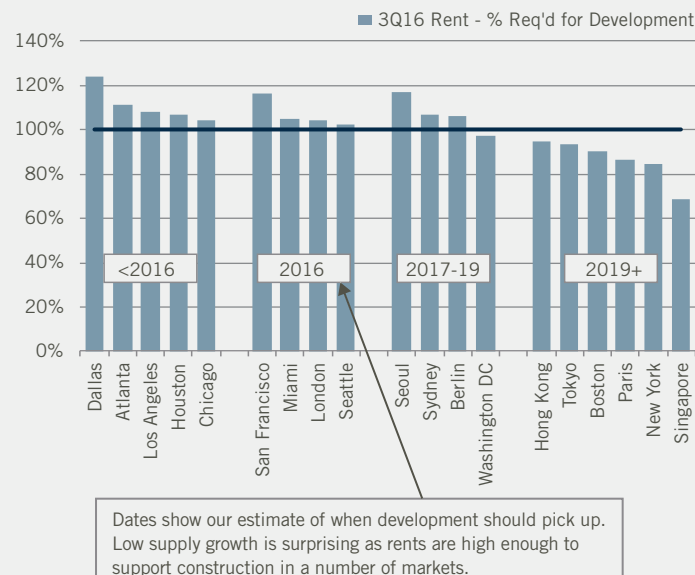
Retail absorption is particularly weak compared to the period between 2005 and 2007 as demand for physical store space remains under pressure from rising online retail penetration. In general, retailers remain cautious and reluctant to commit to a rising cost base, trimming space in underperforming stores to focus resources on select high-quality locations, while diverting resources to build online capabilities.

Benefiting from a shift away from physical retail, logistics markets are clear outperformers. Space absorption is well above historic norms in each region as retailers and third-party logistics firms build supply networks to cater to growing online demand.

Trend 3: Debt Constraints Holding Back Development

Lenders are cautious about development projects despite elevated rents. Low supply growth is supporting the rental outlook, although there are risks in emerging markets.

While occupier demand remains characterized by caution, it continues to come up against a relatively contained supply picture. In developed markets, completions of office space ticked up to about 2% of existing stock in 2016, which is below its pre-2008 average of 2.8% per year. The pipeline has been revised down for 2017 compared to previous expectations (Exhibit 3) – owing to a number of projects being scaled back or delayed – and little acceleration in development activity is expected over the next few years.

EXHIBIT 3: GLOBAL OFFICE DEVELOPMENT PIPELINE**GLOBAL OFFICE SUPPLY GROWTH AND HISTORIC FORECAST REVISIONS****ESTIMATED RENTS TO SUPPORT DEVELOPMENT ACTIVITY**

Sources: CoStar, JLL, PMA, PGIM Real Estate; As of December 2016.

In some ways low development activity is surprising. Our estimates suggest that rents are now high enough to support faster supply growth in a number of major office markets – although this does include cities with slowing occupier demand such as Houston, which has been affected by a drop in energy prices, and London, where Brexit is weighing on financial occupiers.

One of the main constraints on supply growth is that lenders remain cautious about financing development activity, owing to uncertainty about the outlook and an increasing regulatory burden. In the United States, banks are already tightening lending terms, while survey evidence suggests that nearly half of borrowers find that development finance is undersupplied. Finance for speculative developments is still particularly hard to obtain and, in the UK for example, margins have risen sharply this year.

There are few signs of an imminent shift in approach by lenders, and we do not anticipate an acceleration in the number of schemes getting underway in developed markets in 2017. As a result, low supply growth looks set to support the outlook for rental growth, even if demand expansion remains sluggish.

However, if we look beyond major developed markets, there is a different story. In emerging markets – after a few years of weaker-than-expected supply growth linked to concerns about China and low commodity prices – pipelines are being revised upwards again, reflecting signs that economic growth prospects are improving. Unlike developed markets, a surge in completions next year could put pressure on availability and weigh on rental growth, especially in high-building markets such as Shanghai.

Our estimates suggest that rents are now high enough to support faster supply growth in a number of major office markets.



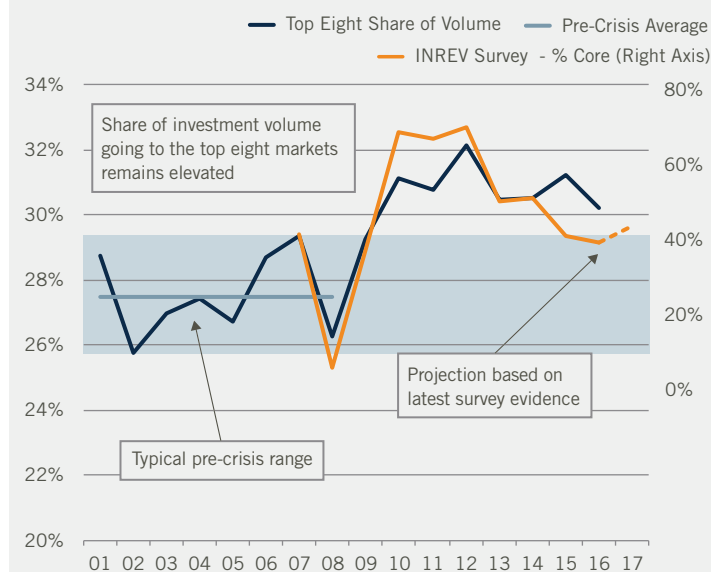
Trend 4: Investors Continue to Target Major Markets

The share of capital going to major markets remains elevated. The gap in occupier performance is narrowing, but we do not anticipate a significant rotation of capital away from major core markets in 2017.

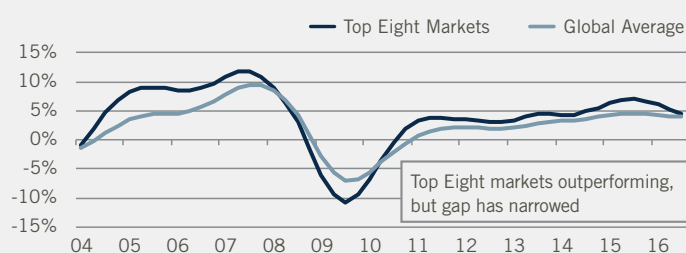
In the context of heightened political uncertainty and subdued rates of demand expansion, the amount of capital targeting major cities remains elevated. During 2016, 30% of all global investment transactions were completed in just eight major cities – the “top eight” that have featured in the top 10 global investment markets by volume, more or less permanently, over the past decade (Exhibit 4). While the share of the top eight has edged back down a little this year – partly due to a sharp decline in volume in Brexit-hit London, as well as Paris and Tokyo – it remains above its historical normal range.

EXHIBIT 4: TOP EIGHT SHARE OF GLOBAL TRANSACTION VOLUME

TOP EIGHT SHARE OF GLOBAL TRANSACTION VOLUME



ALL PROPERTY RENTAL GROWTH: TOP EIGHT VS GLOBAL



ANNUAL RENTAL GROWTH BY SECTOR – 2016



Note: “top eight” markets refers to New York, London, Tokyo, Los Angeles, Paris, San Francisco, Washington DC, and Hong Kong. “Next 12” comprises the remainder of the top 20 most significant real estate investment markets over the past decade. Sources: Real Capital Analytics, Cushman & Wakefield, CoStar, JLL, PMA, Oxford Economics, PGIM Real Estate; As of December 2016.

At the start of the year, INREV’s survey of investor intentions pointed towards a lower appetite for “core” among global investors, yet the share of the top eight markets remains stubbornly high. In part, their popularity reflects permanent factors such as greater stock availability and a perception of superior liquidity and transparency – but it also reflects occupier market performance.



Since 2010, annual all property rental growth in the top eight has been 4.6% per year, compared to a more modest 3% per year for all global markets. In a returns context, the growth outperformance has been more than sufficient to offset lower ingoing yields. As a result, spreads between the top eight and smaller cities remain above historic norms.

Rental growth in the top eight has eased back this year – notably in London, where occupier demand has softened since June – and the gap with all global markets has narrowed. However, rental growth in the “next 12” largest investment markets is much weaker, especially in office markets such as Chicago and Houston, and retail markets, such as Miami and Singapore.

More recent surveys of investor preferences, such as one carried out by Property Market Analysis in the third quarter, paint a picture of renewed investor caution. As a result, with subdued rental growth being recorded in other cities that are competing for global investment, we do not anticipate a significant rotation of capital away from major core markets in 2017.

Trend 5: Cross-Border Flows Edging Back Up

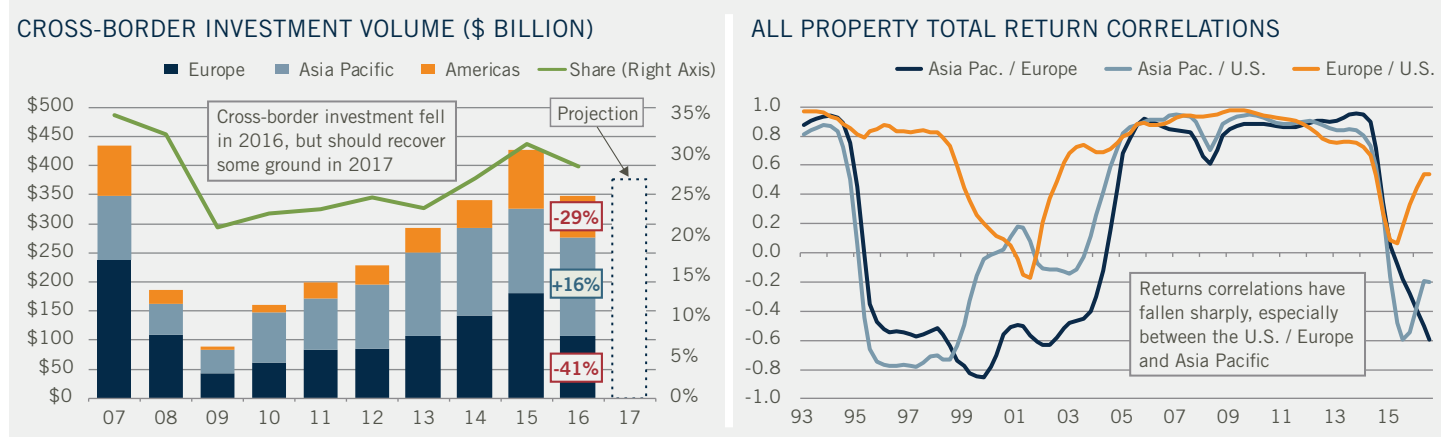
Cross-border activity slowed in 2016, but stabilizing foreign direct investment growth and low returns correlations point towards a pick-up in 2017.

While the share of capital going to a handful of major markets remains high, home bias among investors – reflecting a preference for domestic over foreign markets – has increased. During 2016, the share of cross-border investment fell to just under 30% of the global total in response to factors such as heightened market volatility at the start of the year, concerns about China's growth outlook, forecast downgrades and surprise election results (Exhibit 5).

Europe recorded the sharpest drop in cross-border flows as Asian and U.S. investors eased off in response to Brexit-related uncertainty in the UK – its largest market – along with perceptions of elevated pricing and a lack of stock availability. Asian markets reported an increase in cross-border deals, primarily in the office and apartment sectors, although this was driven by increased intra-regional trade. In contrast, the volume of capital going into Asia Pacific from Europe and the United States declined.

With subdued rental growth being recorded in other cities that are competing for global investment, we do not anticipate a significant rotation of capital away from major core markets in 2017.



EXHIBIT 5: GLOBAL CROSS-BORDER INVESTMENT VOLUME

Sources: Real Capital Analytics, Cushman & Wakefield, CoStar, JLL, PGIM Real Estate; As of December 2016.

Looking ahead to next year, we expect the pattern of slower cross-border flows to reverse. In 2016, global foreign direct investment (FDI) declined by 7% after growing by an average of 5% per year over the last five years. Forecasts point towards FDI growth stabilizing next year, which we expect to go hand in hand with a moderate increase in cross-border investment, albeit falling short of the level recorded in 2015.

Another factor supporting rising cross-border investment in 2017 is that returns correlations have fallen sharply, which should encourage investors seeking diversification. Paradoxically, the emergence of so-called “de-globalization” – as some key policymakers move towards increased protectionism to reflect shifting political preferences – implies greater opportunities for investors willing to look beyond domestic markets.

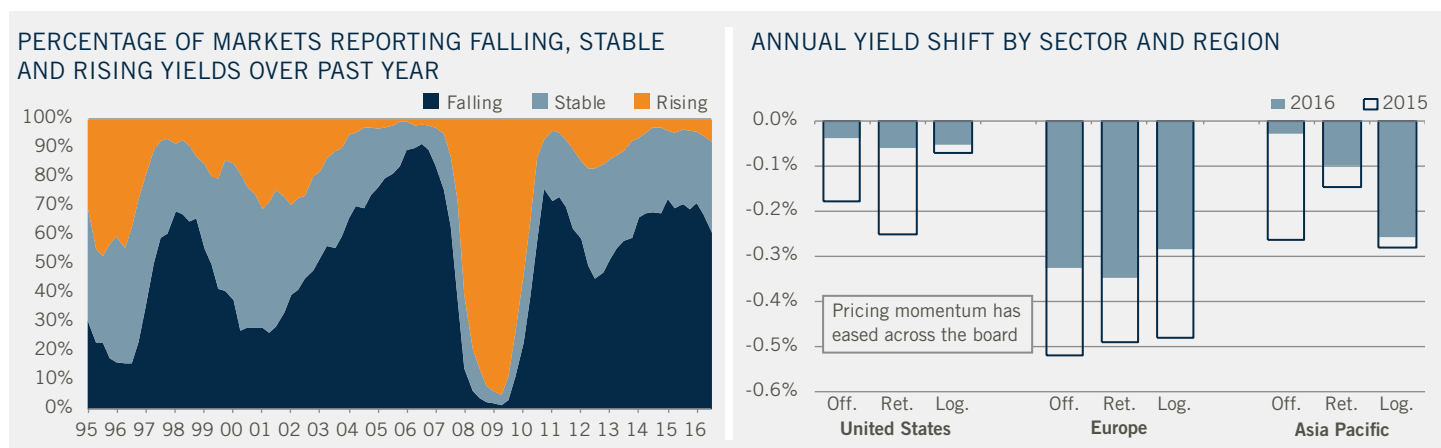
Another factor supporting rising cross-border investment in 2017 is that returns correlations have fallen sharply, which should encourage investors seeking diversification.

Trend 6: Pricing Momentum is Slowing

The pace of yield shift is slowing due to concerns about elevated pricing and limited scope for further compression in major markets that already have very low yields.

Lower cross-border flows have been part of the story behind a wider slowdown in investment activity in 2016. To some extent, lower global transaction volume simply reflects a normalization after an unusually strong 2015. However, with yields at historic lows in many markets, there are ongoing concerns that pricing is too elevated. The number of markets that have reported falling yields over the last 12 months is down, although still represents 61% of major global markets across the office, retail and logistics sectors (Exhibit 6).



EXHIBIT 6: YIELD SHIFT ACROSS GLOBAL PROPERTY MARKETS

Sources: Cushman & Wakefield, CoStar, JLL, PGIM Real Estate; As of December 2016.

Momentum has eased across the board, with the pace of yield compression slower in all major sectors and regions during 2016, including the United States, where transaction volume held up comparably well. Europe reported the most significant yield shift, less driven by core markets where yields are very low, but rather by rising appetite for late-recovery peripheral markets such as Milan and Madrid, which now offer a fast-improving economic outlook.

Given ongoing investor demand, along with a positive, if unexciting, occupier market outlook and ongoing low supply story supporting income growth, we anticipate some further yield compression in 2017. However, the pace of yield shift is likely to ease further, reflecting concerns about elevated pricing and the limited scope for further compression in major markets that already have very low yields like Hong Kong, London, New York and Tokyo.

The pace of yield shift is likely to ease further, reflecting concerns about elevated pricing and the limited scope for further compression in major markets that already have very low yields.

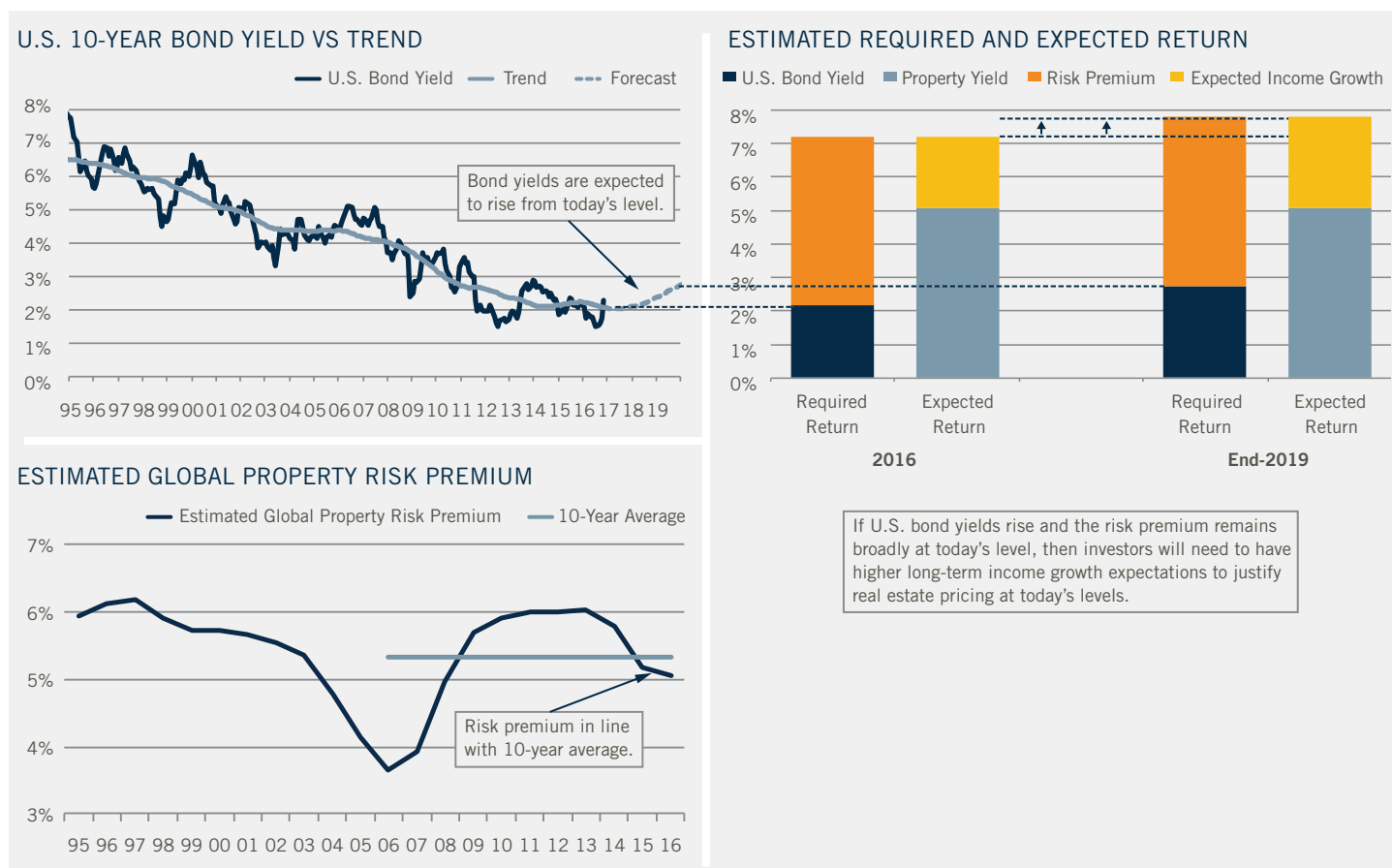
Trend 7: Focus Turning To Income Growth

Forecasts for rising bond yields point towards higher required returns for real estate. Investors will increasingly be on the lookout for income growth and we anticipate growing interest in value-add strategies.

Property pricing continues to benefit from a low global interest rate environment, although bond yields have started to edge upwards. Global inflationary pressures are rising as the impact of low energy prices fades, notably in the United States, where low unemployment, rising wages and the prospect of a renewed fiscal boost have pushed up short-term interest rate expectations.

The U.S. 10-year bond yield – which we view as a proxy for a global risk-free rate for real estate investors – jumped to 2.3% in mid-November, having ended the third quarter of 2016 at just 1.6% (Exhibit 7). Following suit, other global bonds have re-priced, albeit in a more measured fashion, with 10-year yields rising in most major countries including Japan, Germany and the UK. Forecasts point towards U.S. bond yields rising to about 2.7% by the end of 2019 – a fairly modest pace of tightening by historical standards.



EXHIBIT 7: IMPACT OF RISING U.S. BOND YIELDS ON GLOBAL REAL ESTATE PRICING

Sources: OECD, Oxford Economics, PGIM Real Estate; As of December 2016.

All things being equal, rising interest rates imply higher required returns on real estate investments. In a well-functioning market, it should be the case that investors' expected returns are equal to or above the required return – which is a combination of the risk-free rate plus an appropriate risk premium. Assuming the global risk premium – which is currently in line with its historic average based on our estimates – remains broadly unchanged, it follows that long-term income growth expectations will need to increase to allow yields to remain at or below today's levels.

As a result, we expect investors to broaden their focus beyond secure income streams, towards assets and markets that offer income growth potential in order to meet return requirements that are starting to edge upwards. Supported by ongoing low supply, we anticipate growing interest in value-add strategies in developed markets that seek to improve property income streams via active asset management or repositioning strategies.

We expect investors to broaden their focus beyond secure income streams, towards assets and markets that offer income growth potential in order to meet return requirements.



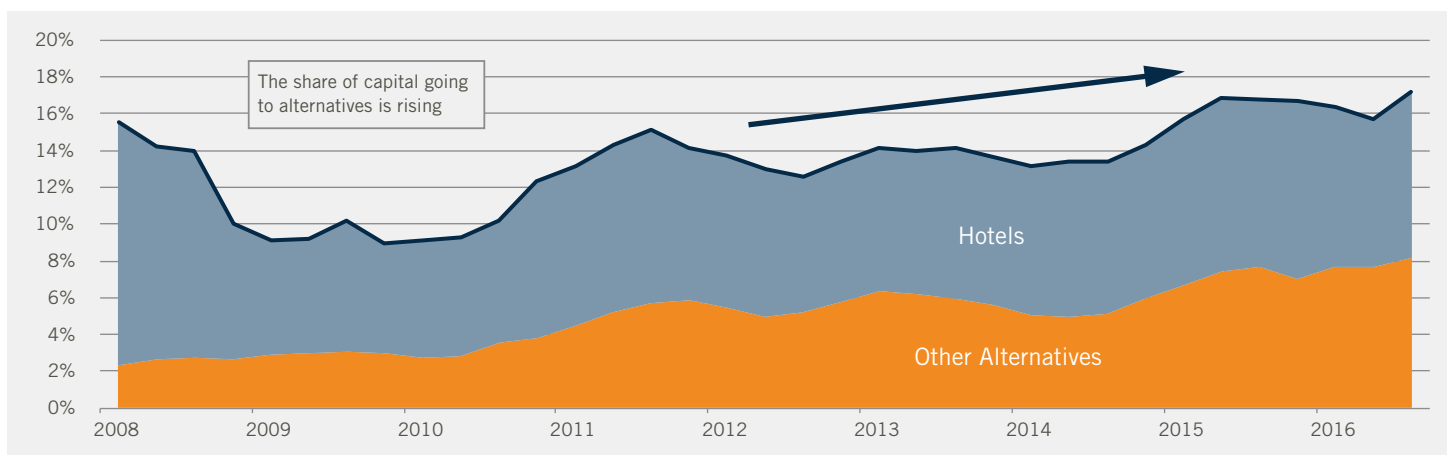
Trend 8: Growing Interest in Alternatives

Investment in alternative real estate sectors is rising as investors look to tap into growth potential arising from favorable structural trends.

With the prospect of rising interest rates edging closer, a combination of low yields and modest rates of occupier expansion in mainstream office and retail markets means that investors are increasingly on the lookout for assets and strategies that offer long-term growth potential.

Interest in so-called alternative real estate assets – which comprise non-traditional and emerging sectors, such as self-storage, medical office, data centers and senior housing – is increasing as they offer investors a way to tap into growth arising from structural trends relating to technology and demographics. Since 2010, the share of global capital going into hotels and other alternatives has risen from 9% to 17% (Exhibit 8).

EXHIBIT 8: GLOBAL INVESTMENT SHARE IN ALTERNATIVE REAL ESTATE ASSETS



Sources: Real Capital Analytics, PGIM Real Estate; As of December 2016.

Over time, increasing investment flows should gradually bring greater liquidity and institutional depth to alternative asset markets. While greater transparency may erode some of the excess returns that relate to the opacity of some of these sectors, in the absence of a stronger economic growth story, we anticipate that interest in alternatives will continue to grow.

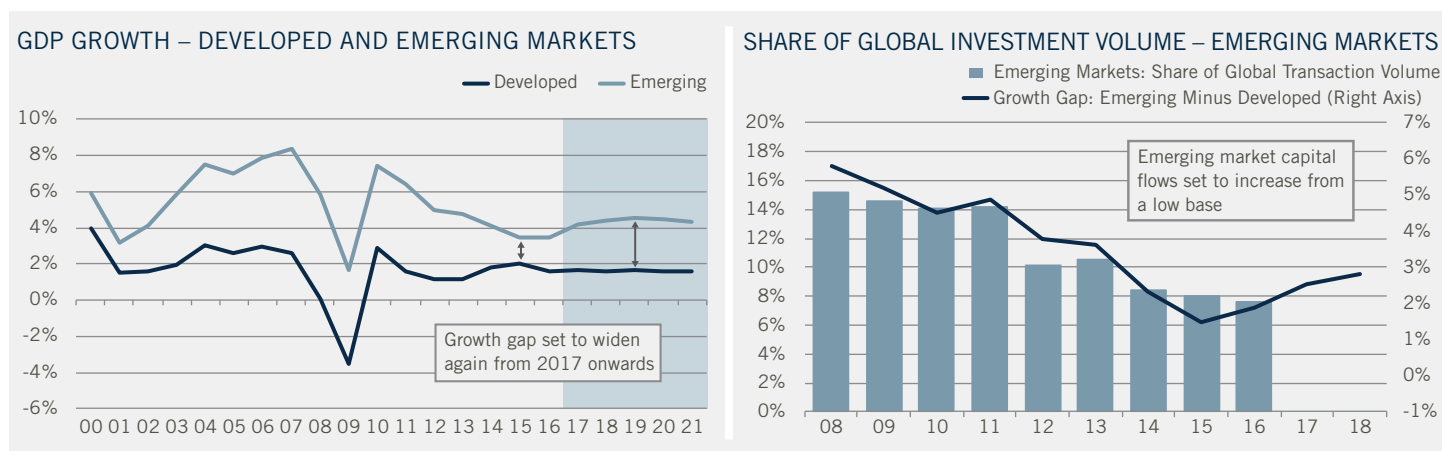
In the absence of a stronger economic growth story, we anticipate that interest in alternatives will continue to grow.

Trend 9: Emerging Markets Attracting More Capital

Expectations of an increasing gap with GDP growth in developed markets points towards rising investment activity in emerging markets.

Over the last decade, emerging market economies grew faster than developed markets by 4.2% per year (Exhibit 9). However, by 2015, falling commodity prices and a slowdown in China meant that the gap narrowed to just 1.5%. Slower relative growth has eroded the excess returns on offer and the share of global capital invested in emerging markets has fallen below 8%, down from a share of 14% five years ago.

EXHIBIT 9: EMERGING MARKET GDP GROWTH AND SHARE OF INVESTMENT VOLUME



Sources: Oxford Economics, Real Capital Analytics, PGIM Real Estate; As of December 2016.

There are signs that emerging markets are gathering momentum once more. Commodity prices are rising from a low base, benefiting raw material producers like Brazil, while China's fiscal stimulus package has shored up previously faltering growth, albeit at the expense of rising debt ratios. There are still a lot of risks, but given that emerging market growth is accelerating while growth in developed markets remains sluggish, the increasing gap between growth rates points to the amount of capital targeting emerging markets rising from a low base in 2017.

The increasing gap between growth rates points to the amount of capital targeting emerging markets rising from a low base in 2017.



Conclusion

On the whole, we look ahead to 2017 with some optimism but remain cautious about the outlook. Global economic growth is steady, although the boost from low energy prices is fading in developed economies and momentum is tilting back towards emerging markets. Meanwhile, if recent events are anything to go by, undoubtedly there will be more election-related twists and turns to come in 2017.

Reflecting the broader economic story, real estate occupier markets are characterized by elevated uncertainty, moderate growth and an absence of meaningful acceleration. Leasing demand is slightly above average, but lacking momentum compared to previous expansion periods.

Like occupiers, investors remain cautious and the amount of capital going to just a handful of major markets – the top eight – remains elevated, particularly as rental growth in other markets that compete for global capital is subdued. Cross-border flows should recover from a dip in 2016, but pricing momentum is slowing at the same time as interest rates start to edge upwards.

As investors shift their focus towards income growth to meet required returns, we anticipate growing interest in value-add strategies in major markets, supported by the low supply environment, and in alternative real estate assets, which benefit from long-term growth potential arising from favorable structural trends. Meanwhile, interest in fast-growing emerging markets should start to recover from a low base as their relative growth story improves.

As investors shift their focus towards income growth to meet required returns, we anticipate growing interest in value-add strategies in major markets.

Investment Research Team – Key Contacts

Principal Author

Greg Kane
Vice President
+44 20 7766 2436
greg.kane@pgim.com

Global

Dr. Peter Hayes
Managing Director
Global Head of Investment Research
+44 20 7766 2435
peter.hayes@pgim.com

Americas

Lee Meniffee
Managing Director
Head of Americas Research
+1 973 734 1571
lee.meniffee@pgim.com

Frank Nitschke
Executive Director
+1 973 683 1689
frank.nitschke@pgim.com

Kelly Whitman
Vice President
+1 973 734 1308
kelly.whitman@pgim.com

Carlos Ortea
Assistant Vice President
+1 973 683 1754
carlos.orteas@pgim.com

Liliana Diaconu
Analyst
+1 973 683 1681
liliana.diaconu@pgim.com

Dean Joseph Deonardo
Analyst
+1 973 734 1568
dean.joseph.deonardo@pgim.com

Phoebe Keegan
Analyst
+1 973 734 1451
phoebe.keegan@pgim.com

Miranda Previte
Analyst
+1 973 683 1769
miranda.previte@pgim.com

Yvonne White
Research Assistant
+1 973 683 1761
yvonne.white@pgim.com

Europe

Greg Kane
Vice President
+44 20 7766 2436
greg.kane@pgim.com

Florian Richter
Associate
+44 20 7766 2461
florian.richter@pgim.com

Asia Pacific

Cuong Nguyen
Executive Director
+65 6735 2833
cuong.nguyen@pgim.com

Benedict Lai
Assistant Vice President
+852 3769 8238
benedict.lai@pgim.com



Important Information

PGIM is the primary asset management business of Prudential Financial, Inc (PFI). PGIM Real Estate is PGIM's real estate investment advisory business and operates through PGIM, Inc., a registered investment advisor. PGIM, their respective logos as well as the Rock symbol are service marks of PFI and its related entities, registered in many jurisdictions worldwide. In the United Kingdom, information is presented by PGIM Real Estate which is affiliated to PGIM Limited. PGIM Limited is authorized and regulated by the Financial Conduct Authority ('FCA') of the United Kingdom (registration number 193418) and duly passported in various jurisdictions in the European Economic Area. These materials are being issued by PGIM Limited to persons who are professional clients or eligible counterparties for the purposes of the Financial Conduct Authority's Conduct of Business Sourcebook. PFI of the United States is not affiliated in any manner with Prudential plc, a company incorporated in the United Kingdom. The information provided in the document is presented by PGIM (Singapore) Pte. Ltd.), a Singapore investment manager that is registered with, and licensed by the Monetary Authority of Singapore. In PGIM (Hong Kong) Limited, this material is distributed by representatives of PGIM Asia Fund Management Limited, a regulated entity with the Securities and Futures Commission in Hong Kong to professional investors as defined in Part 1 of Schedule 1 of the Securities and Futures Ordinance.

These materials represent the views, opinions and recommendations of the author(s) regarding the economic conditions, asset classes, securities, issuers or financial instruments referenced herein. Distribution of this information to any person other than the person to whom it was originally delivered and to such person's advisers is unauthorized, and any reproduction of these materials, in whole or in part, or the divulgence of any of the contents hereof, without prior consent of PGIM Real Estate is prohibited. Certain information contained herein has been obtained from sources that PGIM Real Estate believes to be reliable as of the date presented; however, PGIM Real Estate cannot guarantee the accuracy of such information, assure its completeness, or warrant such information will not be changed. The information contained herein is current as of the date of issuance (or such earlier date as referenced herein) and is subject to change without notice. PGIM Real Estate has no obligation to update any or all of such information; nor do we make any express or implied warranties or representations as to the completeness or accuracy or accept responsibility for errors. These materials are not intended as an offer or solicitation with respect to the purchase or sale of any security or other financial instrument or any investment management services and should not be used as the basis for any investment decision. Past performance is no guarantee or reliable indicator of future results. No liability whatsoever is accepted for any loss (whether direct, indirect, or consequential) that may arise from any use of the information contained in or derived from this report. PGIM Real Estate and its affiliates may make investment decisions that are inconsistent with the recommendations or views expressed herein, including for proprietary accounts of PGIM Real Estate or its affiliates.

The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients or prospects. No determination has been made regarding the suitability of any securities, financial instruments or strategies for particular clients or prospects. For any securities or financial instruments mentioned herein, the recipient(s) of this report must make its own independent decisions.

Conflicts of Interest: Key research team staff may be participating voting members of certain PGIM Real Estate fund and/or product investment committees with respect to decisions made on underlying investments or transactions. In addition, research personnel may receive incentive compensation based upon the overall performance of the organization itself and certain investment funds or products. At the date of issue, PGIM Real Estate and/or affiliates may be buying, selling, or holding significant positions in real estate, including publicly traded real estate securities. PGIM Real Estate affiliates may develop and publish research that is independent of, and different than, the recommendations contained herein. PGIM Real Estate personnel other than the author(s), such as sales, marketing and trading personnel, may provide oral or written market commentary or ideas to PGIM Real Estate's clients or prospects or proprietary investment ideas that differ from the views expressed herein. Additional information regarding actual and potential conflicts of interest is available in Part 2 of PGIM's Form ADV.

