

Trends for 2018

Global Real Estate Trends Set to Shape the Next 12 Months

December 2017

Executive Summary

With the year drawing to a close, we turn our attention to the outlook and identify eight major occupier and investment trends that we expect to influence market conditions and investment performance in 2018 and beyond.

- 1. Liquidity Support Easing Back:** Declining central bank liquidity and gradually rising interest rates imply reduced support for asset values.
- 2. Investment Market Tracking Sideways:** Investment volume has leveled off, reflecting caution among investors and lenders. With less debt available or being used, fewer large transactions are being recorded than in previous cycles.
- 3. Yield Impact Fading:** Fewer than half of all global markets are now reporting yield compression, ushering in a lower returns environment.
- 4. Rising Employment, Modest Absorption:** The favorable outlook for employment growth is not set to result in a notable reduction in vacant space owing to a lower pass-through to absorption and a slight increase in supply growth.
- 5. Selective Office Rental Growth:** The outlook varies significantly across major office markets. There are a number of cities where vacancy is very low and further rental growth looks likely.
- 6. Logistics Outperforming Retail:** Online spending growth shows little sign of abating for now. Logistics looks well-positioned to continue to outperform retail in the year ahead.
- 7. Performance Diverging Again:** Differences in rental performance across markets are set to drive a continued divergence in value movements, reducing correlation and enhancing the benefits of diversification.
- 8. Investors Looking Further Afield:** As returns on traditional core assets move lower, more capital is flowing into real estate debt, infrastructure, and non-traditional real estate sectors.

Introduction

It looks like 2018 will be the year in which the tide of global central bank-created liquidity starts to turn. Given that injections of liquidity have undoubtedly been a factor supporting financial asset values – including real estate – there is uncertainty relating to the outlook for real estate pricing as investors assess historically low yields in a slightly less supportive monetary environment.

As a result, there is an ongoing contrast between a sense of optimism towards so-called real estate “fundamentals” – the economy, occupancy metrics, supply growth and rental performance – and caution towards capital markets. Investors are concerned about elevated pricing and transaction volume has leveled off owing to slowing demand for big-ticket portfolio transactions, caused in part by conservative use of leverage.

Capital is still targeting real estate, but investors are increasingly wary of elevated pricing and there is an ongoing transition away from yield impact-driven returns performance. Rental growth is positive but not running at a sufficiently fast pace to compensate for an absence of yield compression in many markets.

Lower returns are already being recorded across Asia Pacific and the United States, and are expected to slow in Europe, where markets like France and Germany are now reporting historically low yields.

Real estate performance has once again become more varied as value movements are increasingly being driven by macro events and fundamentals, which can differ substantially across sectors, regions and markets. Contrasts in the outlook between high and low-supply growth office markets, or between logistics and retail as online spending grows, mean that returns correlations are coming down.

At once, these themes imply challenges and opportunities for real estate investors. Low initial yields, high competition for assets and limitations on the use of leverage mean that underwriting returns on transactions in traditional sectors and markets remains challenging – yet improvements in the global economic outlook and low real estate supply growth point to a favorable investment environment.

As a result, 2018 looks set to be a year in which investors broaden their horizons further, looking for sources of capital protection, growth and diversification; for example, in real estate debt investments, non-traditional real estate sectors, or – in the broader sense of “real assets” – infrastructure projects.



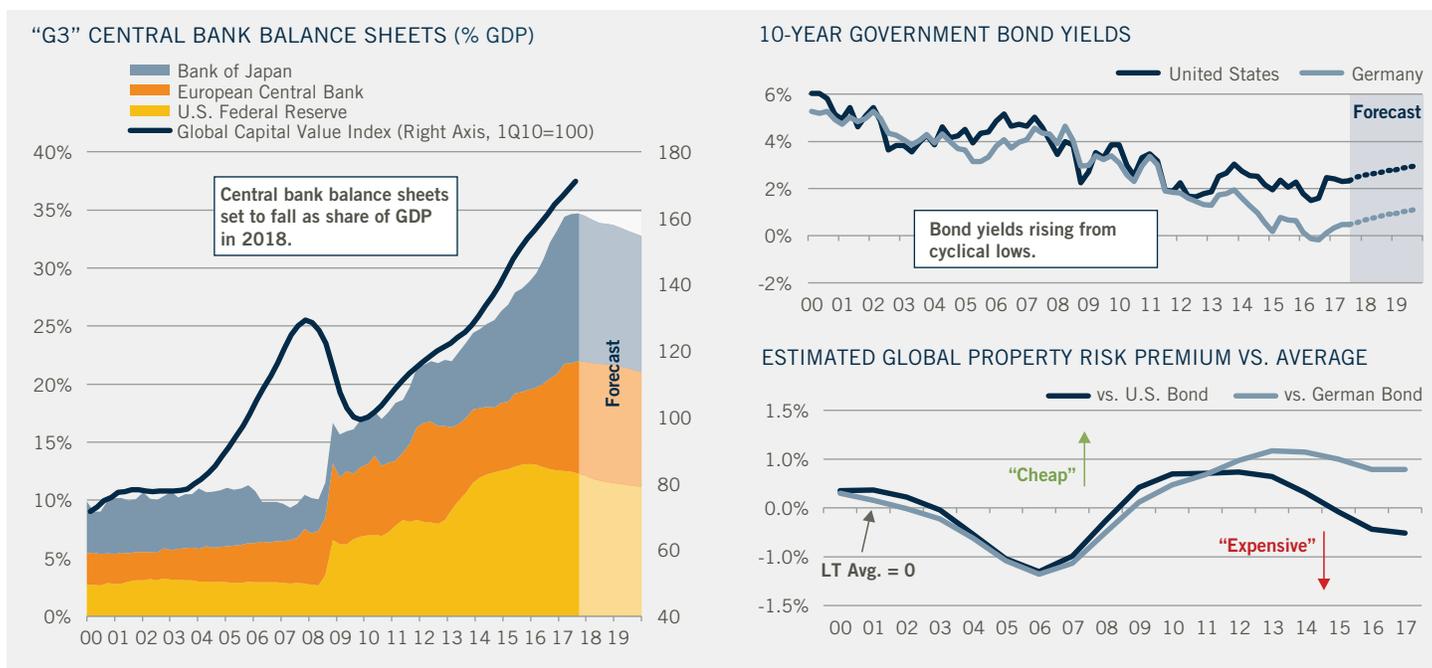
Trend 1: Liquidity Support Easing Back

Declining central bank liquidity and gradually rising interest rates imply reduced support for asset values.

In recent years, injections of global liquidity have undoubtedly been a factor supporting financial asset values – including real estate pricing. Despite a notable correlation between the two since 2010 (Exhibit 1), recent improvements in economic growth and occupier fundamentals suggest that the increase in real estate values has not been solely due to central bank balance sheet expansion.

The tide of global central bank-created liquidity is starting to turn. In the United States, the Federal Reserve is already in tightening mode and has been gradually raising its policy interest rate and tapering asset purchases under its quantitative easing (QE) program since 2015. Meanwhile, the European Central Bank and Bank of Japan are still planning to acquire assets under their QE programs, but at a reduced pace compared to the past 18 months.

EXHIBIT 1: LIQUIDITY, INTEREST RATES AND REAL ESTATE PRICING



Note: Past performance is not a guarantee or a reliable indicator of future results.

Sources: Bloomberg, Oxford Economics, CoStar, Cushman & Wakefield, JLL, PGIM Real Estate; As of December 17, 2017.

Based on recent announcements relating to planned purchases, over the next two years the “G3” central bank balance sheet is expected to shrink relative to GDP for the first time since before to the global financial crisis.



Financial markets have begun to price in the effects of declining liquidity support and higher short-term interest rates. During 2017, 10-year government bond yields in Germany and the United States continued to climb from cyclical lows recorded in 2016, and forecasts point to a further gradual increase in rates over the next two years.

For real estate investors, tightening cycles are normally associated with decent property returns as they reflect improving economic growth and demand fundamentals, allowing risk premiums to fall and offset rate hikes. However, an unusually large gap between yields on 10-year German government bonds and an equivalent U.S. treasury is making real estate pricing hard to assess.

A simple comparison of long-term expected returns in today's market – based on prevailing yields and expectations of future growth potential – and the U.S. bond yield, suggests that global real estate pricing is now moderately expensive, with the risk premium elevated compared to history. However, repeat the same calculation with German bonds – which command a high credit rating, making them a fairly close substitute for a U.S. treasury – and property still looks inexpensive.

Differing paths for monetary policy mean that such a contradiction remains unlikely to be resolved in 2018. However, it serves to highlight that the long and gradual process of central banks unwinding QE programs and “normalizing” monetary policy is injecting a degree of uncertainty to the market outlook.

Trend 2: Investment Market Tracking Sideways

Investment volume has leveled off, reflecting caution among investors and lenders. With less debt available or being used, fewer large transactions are being recorded than in previous cycles.

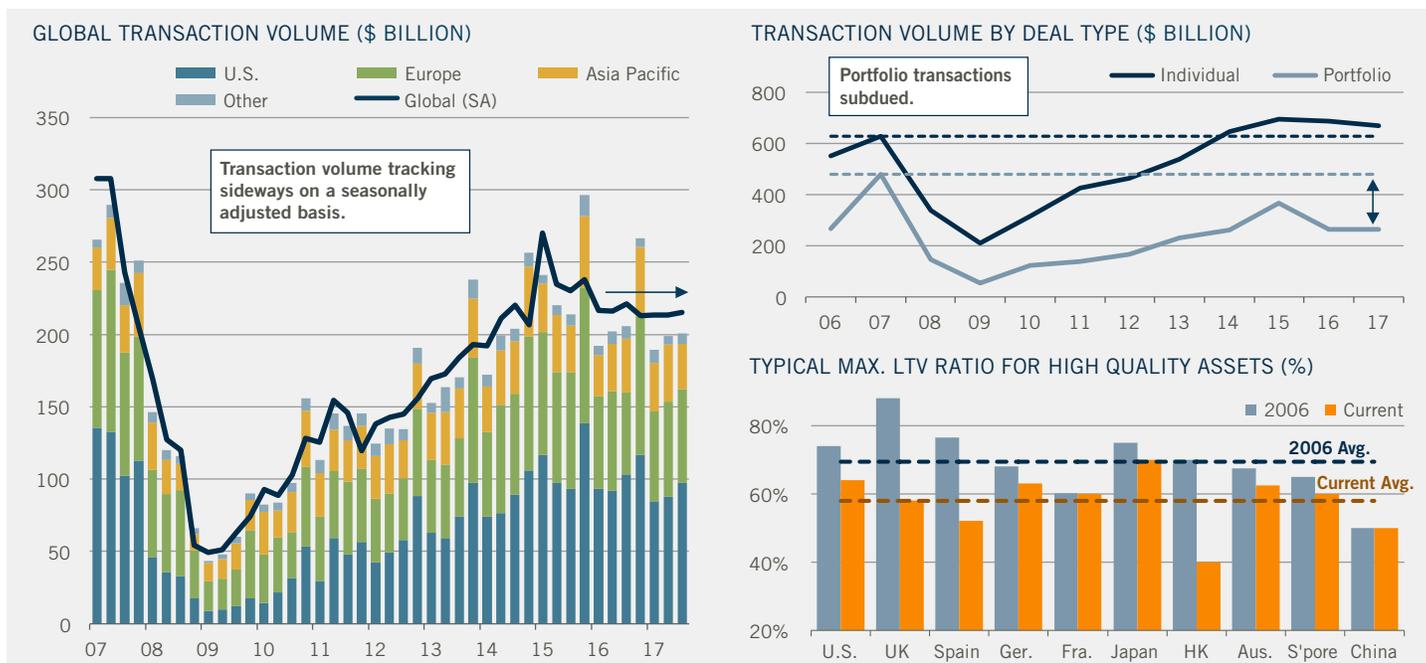
Reflecting a transition towards gradually tighter liquidity conditions, investment market activity pulled back from a stellar 2015, and has now leveled off. On a seasonally adjusted basis, investment volume is almost exactly where it was at the start of 2016 (Exhibit 2).

Within the global trend, there are notable variations. Activity has cooled in the United States, where investors are concerned about pricing in gateway markets, and in the UK, which is being affected by Brexit-related uncertainty. Capital continues to target core markets in the eurozone, where the growth story is improving, and parts of Asia Pacific such as Hong Kong, which is attracting increased activity among Chinese investors.

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EXHIBIT 2: GLOBAL TRANSACTION VOLUME AND DEBT LTV RATIOS



Note: Past performance is not a guarantee or a reliable indicator of future results.

Sources: Real Capital Analytics, CBRE, PGIM Real Estate; As of December 17, 2017.

Compared to history, one factor holding back aggregate deal volume in this cycle is a relatively conservative use of debt financing, despite apparently favorable conditions. Lending margins are low for core properties and interest rates are only just edging upwards, meaning all-in debt costs continue to look attractive – even given low prevailing income yields. In the public markets, REITs can issue debt at previously unseen spreads compared to government bonds.

However, investors and lenders remain cautious. Loan-to-value (LTV) ratios offered by lenders are much lower than they were pre-global financial crisis and, hampered by an increased regulatory burden, banks remain reluctant to move too far beyond core markets, take on too much leasing risk or finance speculative developments.

In addition, CMBS volume has yet to fully recover, especially outside the United States, while in public markets, REITs are carrying much lower debt levels than they did historically, meaning their capital stretches less far. According to the Global Real Estate Funds Index¹, fund leverage has barely increased in the past two years, despite an improvement in fundamentals and strong performance.

The upshot is that with less debt available or being used, fewer large transactions are being recorded than in previous cycles. While individual asset transactions have remained broadly unchanged at their 2015 levels, the volume of large portfolio deals has fallen by more than 20% over the past two years – in sharp contrast to a ramp up in portfolio deals recorded in 2006 and 2007, in the build up to the financial crisis.

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¹ An index of non-listed real estate fund performance produced by ANREV, INREV and NCREIF.



Investors continue to be keenly aware of risks relating to pricing and excessive debt use. Caution towards the use of leverage – which exacerbated the pain of the last downturn for many market players – looks set to continue for the time being, keeping a lid on price momentum and curbing big ticket deals, such as portfolio transactions.

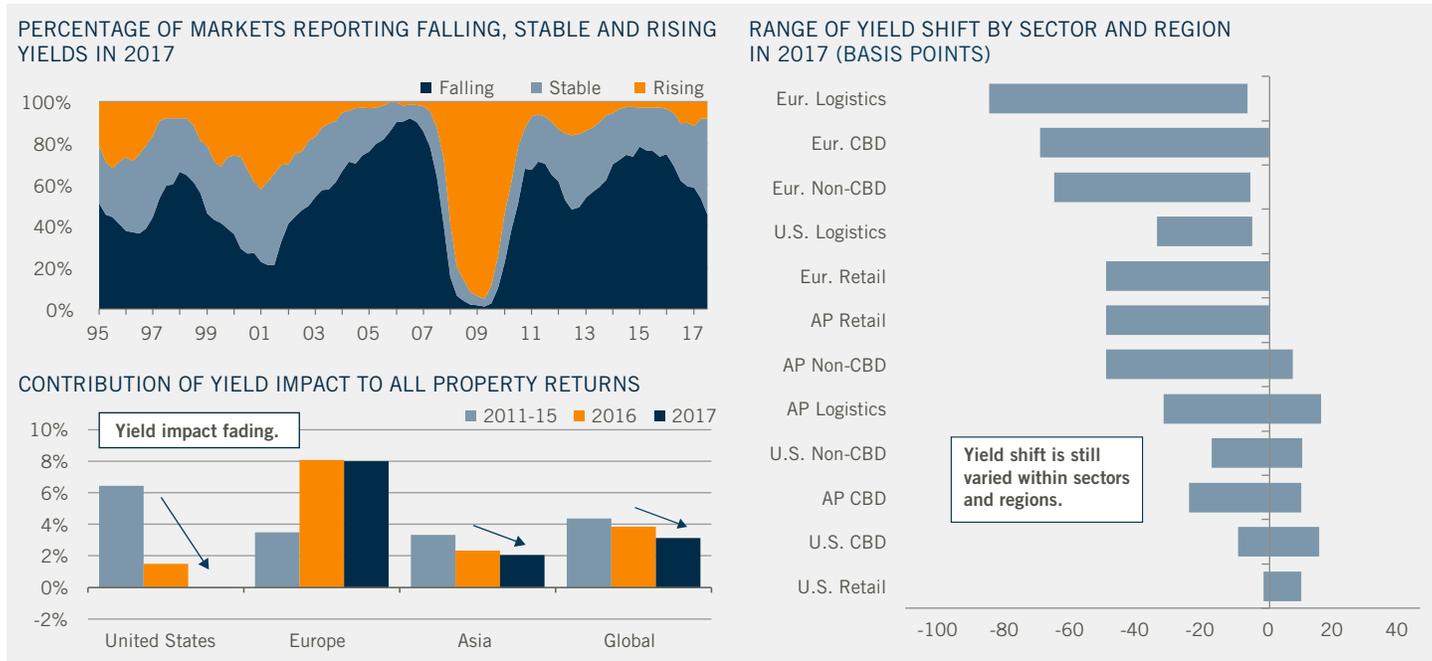
Trend 3: Yield Impact Fading

Fewer than half of all global markets are now reporting yield compression, ushering in a lower returns environment.

A recent survey of global property investors² shows that about 60% of investors think that core assets in Hong Kong, Singapore and United States are “expensive” – rising to more than 75% for France, Germany and Japan. Such perceptions – along with the gradual shift towards monetary tightening – are weighing on yield compression.

During 2017, fewer than half of all global markets across the major commercial sectors reported notable inward yield shift, the lowest number since 2009 (Exhibit 3). However, there are differences across geography. European markets continue to record yield compression at a similar pace to 2016, while markets in Asia Pacific and the United States – where long-term bond yields are higher – have reported a marked slowdown.

EXHIBIT 3: GLOBAL YIELD ANALYSIS



Note: Past performance is not a guarantee or a reliable indicator of future results.

Sources: Real Capital Analytics, Cushman & Wakefield, CoStar, JLL, PMA, Oxford Economics, PGIM Real Estate; As of December 17, 2017.

² RICS, Q3 2017 Global Commercial Property Monitor



The immediate impact is simply to usher in a lower returns environment, as rental growth – although positive – is not running at a sufficiently fast pace to compensate for historically low initial yields and a declining impact from favorable yield movements.

In itself, a slowing pace of yield compression implies that the income being produced by real estate assets is not growing rapidly enough to justify yields moving lower. With leverage remaining contained and transaction volume unlikely to accelerate, yield compression – and its impact on property returns – is set to ease further in 2018.

Within the broad trend, there will likely be variation, much as there has been over the past year. Gateway markets have low yields in each region but, in the United States and Europe, second tier and non-CBD office markets still have elevated yield spreads compared to CBDs, while in Asia yields may compress further in markets like Singapore, which is recording a pick-up in activity.

Trend 4: Rising Employment, Modest Absorption

The favorable outlook for employment growth is not set to result in a notable reduction in vacant space owing to a lower pass-through to absorption and a slight increase in supply growth.

At first glance, rising occupier demand and low rates of development activity look supportive of further rental growth in this cycle, although office development activity is gathering some momentum, despite an ongoing sense of caution among lenders and developers.

Completions have picked up in major developed cities like London, San Francisco and Singapore and, in emerging Asia, Shanghai. Over the past year, net additions to office supply has risen to its fastest pace since 2009. Over the next two years, the pace of additions is set to remain above its recent average of close to 1% per year (Exhibit 4).

On the demand side, factors supporting the outlook for financial and business services (FBS) employment are favorable, owing to elevated business sentiment and improving global GDP growth forecasts. Across 63 major metro areas globally, FBS employers are set to add two million jobs over the next two years at a rate of 1.8% per year, which is just slightly below the average since 2000.

However, an apparently favorable combination of employment growth and low supply additions is not set to lead to a notable reduction in vacant space. In the past few years, the pass-through from employment growth to space absorption has been weak, reflecting factors such as the re-occupation of legacy “grey space”, a shift towards lower value-added services jobs that require less space per worker, increased take-up by coworking providers, and a focus on more efficient use of existing space among occupiers.

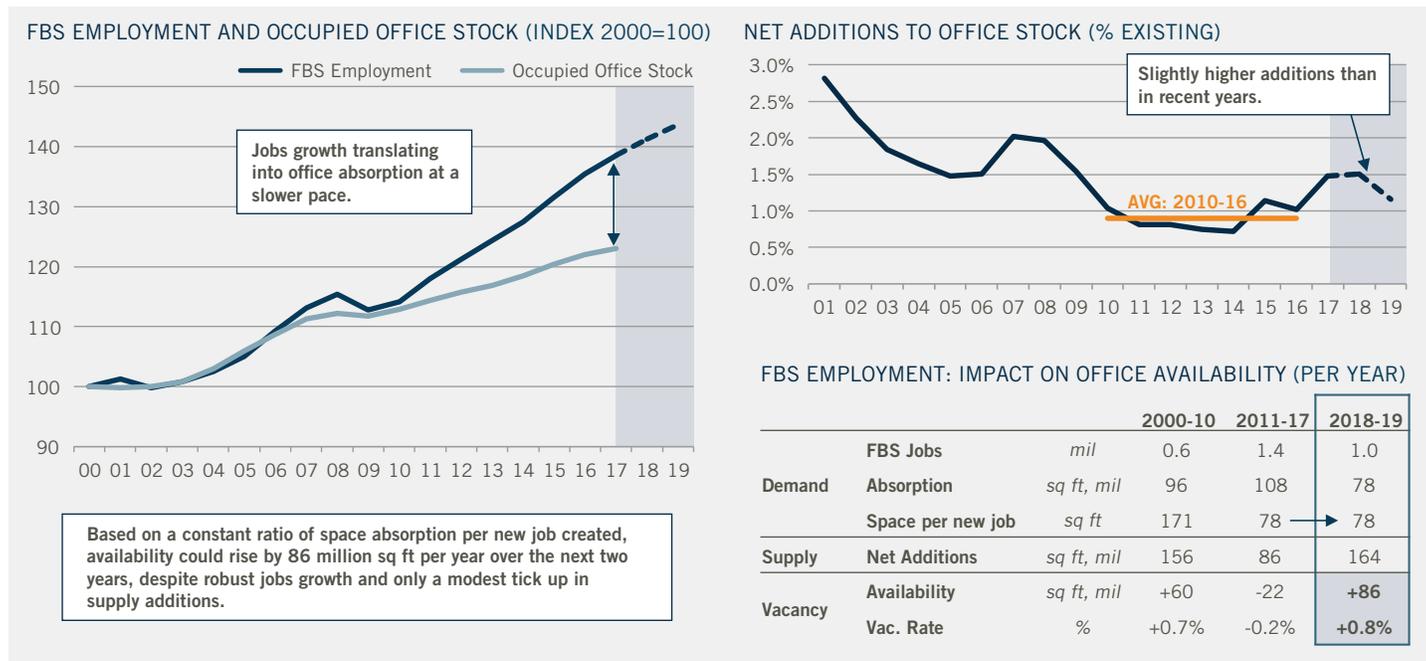
The immediate impact is simply to usher in a lower returns environment, as rental growth is not running at a sufficiently fast pace to compensate for historically low initial yields and a declining impact from yield shift.

If the ratio of space absorbed per job created remains constant, even the relatively modest additions to stock that are anticipated could push up availability.



If the ratio of space absorbed per job created remains constant, even the relatively modest additions to stock that are anticipated could push up availability in the 63 metro areas by 86 million square feet per year over the next two years, despite robust growth in office-using employment. In this scenario, the aggregate global office vacancy rate would actually rise by 0.8% per year.

EXHIBIT 4: GLOBAL OFFICE MARKET DEMAND AND SUPPLY



Note: Past performance is not a guarantee or a reliable indicator of future results.

Sources: CoStar, Cushman & Wakefield, JLL, PMA, PGIM Real Estate; As of December 17, 2017.

Of course, space absorption per new job created may pick up. Much grey space generated by the global financial crisis has now been absorbed and corporate balance sheets look healthy, meaning cost control restrictions that have limited the expansion of space requirements may be lifted.

Even so, with investors under pressure to underwrite faster rental growth to meet target returns and secure assets in a competitive bidding environment, the prospect of vacancy remaining elevated points towards the need for a degree of caution, emphasizing the value of a market-by-market assessment of the outlook.



Trend 5: Selective Office Rental Growth

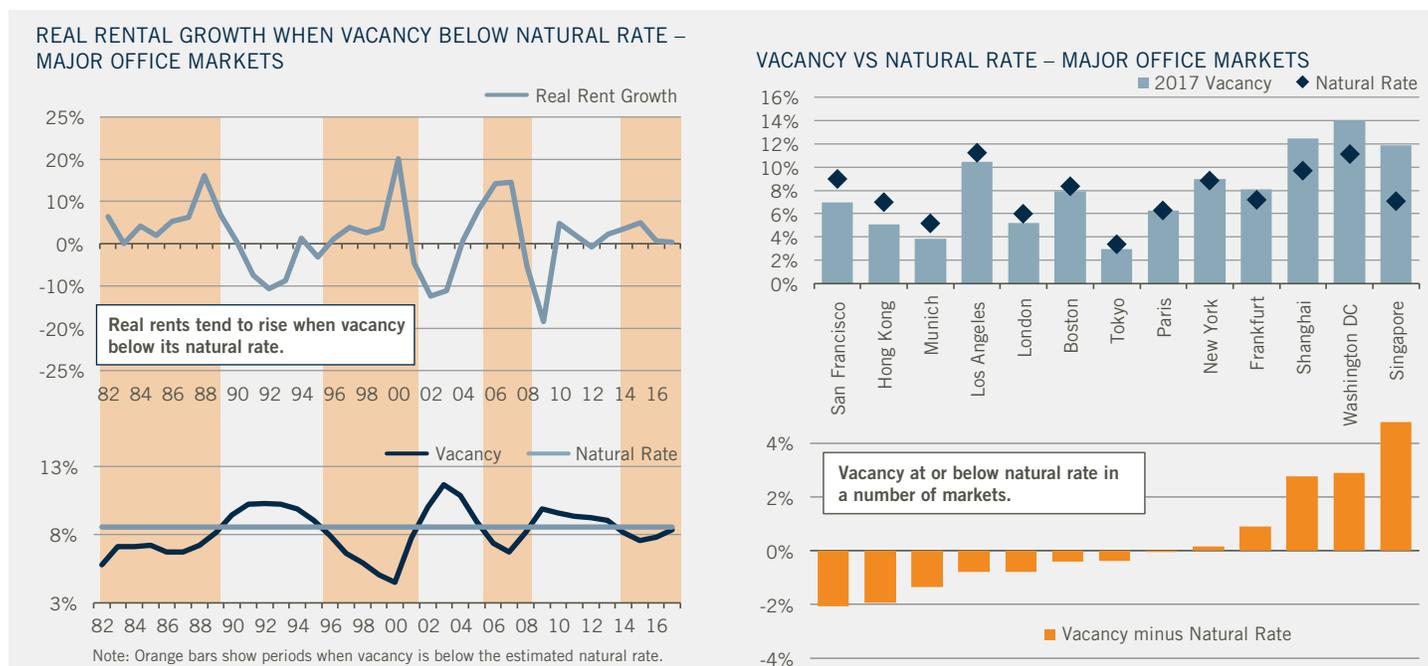
The outlook varies significantly across major office markets. There are a number of cities where vacancy is very low and further rental growth looks likely.

In aggregate, an optimistic but cautious approach towards the office sector is sensible, especially as there may be some upward pressure – albeit contained – on vacancy over the next few years. However, conditions and the outlook vary significantly across markets, and there are a number of cities where vacancy is already very low – and where further rental growth looks likely.

Across a selection of gateway and other major office markets, there is a clear relationship between vacancy and real rental growth. Periods when vacancy is below its estimated “natural rate” of 8.6% across the major markets are typically accompanied by positive real rental growth – and vice versa when vacancy is elevated (Exhibit 5).

There are a number of cities where vacancy is already very low – and where further rental growth looks likely.

EXHIBIT 5: VACANCY AND REAL RENTAL GROWTH IN MAJOR OFFICE MARKETS



Note: Past performance is not a guarantee or a reliable indicator of future results.

Sources: CoStar, Cushman & Wakefield, JLL, PMA, PGIM Real Estate; As of December 17, 2017.

On average, vacancy is edging back up towards its natural rate, owing to strong supply additions in the past two years in Shanghai and Singapore. While real rental growth has dropped back towards zero – again on average – vacancy is generally stable or falling, and is close to or below its natural rate across most other major markets.



The most notable downward shift in vacancy in recent years has been in Germany, particularly in Munich where central business district (CBD) vacancy is effectively zero, and even in Frankfurt, which is emerging from a legacy of overbuilding from the late-1990s. Both of these markets continue to report strong CBD rental growth and, additionally, increasing take-up and rental levels in non-CBD locations.

In addition, markets like Hong Kong, Tokyo and Paris all have low vacancy rates that are consistent with further real rental growth in 2018, although both San Francisco – via high rents and a technology-related employment slowdown – and London – via Brexit uncertainty – have lost rental growth momentum.

Differences in occupier demand, vacancy and construction rates across markets point to diverse performance continuing in 2018.

Trend 6: Logistics Outperforming Retail

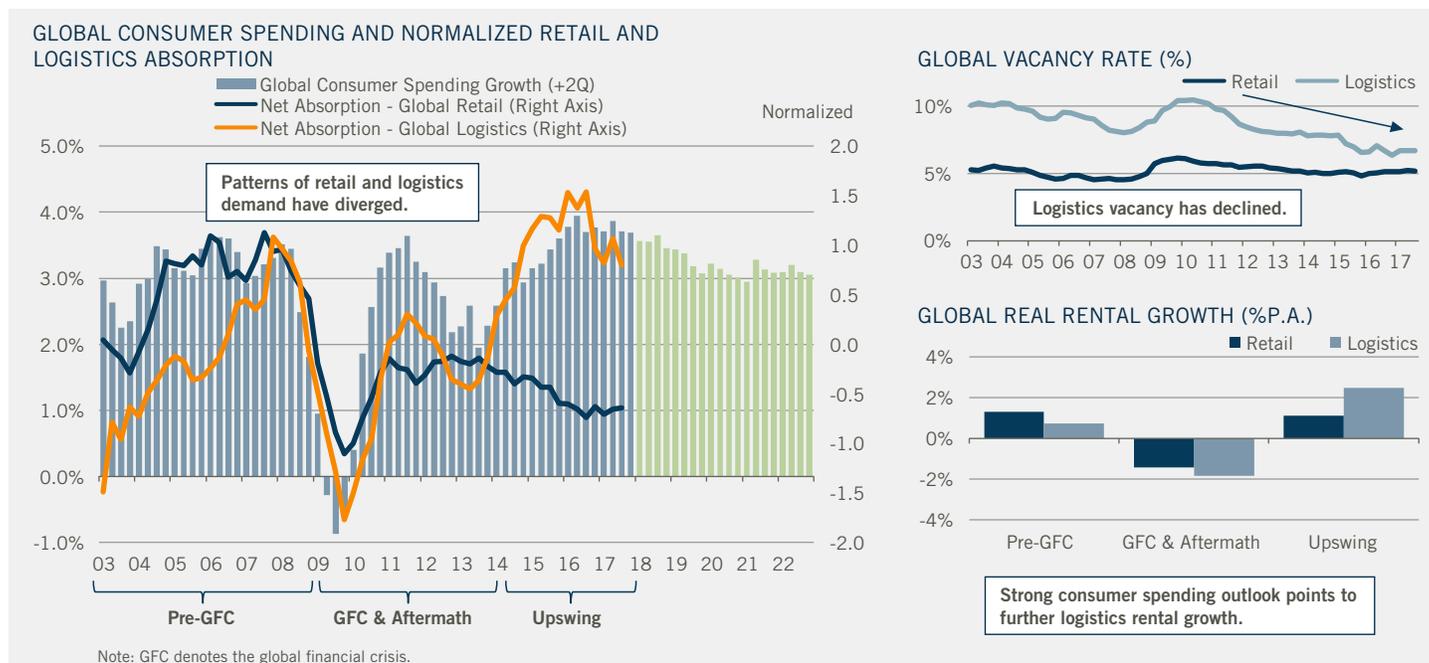
Online spending growth shows little sign of abating for now. Logistics looks well-positioned to continue to outperform retail in the year ahead.

Consumer spending is a key driver for retail and logistics assets, but e-commerce is shifting the dynamics of these sectors. Prior to the global financial crisis, when internet shopping was still in its infancy, retail net absorption and consumer spending growth were highly correlated. In the past few years, the relationship between consumer and retailer demand has broken down (Exhibit 6). Facing stiff competition from online competitors, physical retailers are opening fewer stores and quickly closing underperforming units.

Final demand for consumer goods has always been the most important driver of activity across the logistics supply chain as well, but the link is getting stronger. Since 2014, the latest upswing in global consumer spending growth has more clearly benefited logistics operators owing to supply chain expansion among both pure play online retailers and physical retailers that are building multi-channel capacity. Unlike in the retail sector, space absorption across logistics markets is elevated compared to history.

The latest upswing in global consumer spending growth has more clearly benefited logistics operators owing to supply chain expansion.

EXHIBIT 6: GLOBAL RETAIL AND LOGISTICS DEMAND AND REAL RENTAL GROWTH



Note: Past performance is not a guarantee or a reliable indicator of future results.

Sources: Cushman & Wakefield, CoStar, JLL, PMA, Oxford Economics, PGIM Real Estate; As of December 17, 2017.

On the supply side, the retail development pipeline has all but shut off with the exception of a handful of emerging markets, such as Shanghai and Warsaw. Even so, vacancy is creeping upwards, even on previously desirable in-town prime pitches in Europe and in class A malls in the United States. Real rental growth remains very weak, especially compared to logistics where building rates have not kept pace with demand expansion, and vacancy has decreased, resulting in strong rental growth.

Looking ahead, with job creation and wage growth picking up in most developed markets, the consumer spending environment is set to remain supportive in the year ahead. While the share of online spending in overall sales will likely reach a limit at some point in the future, its growth shows little sign of abating for now. As a result, logistics looks well-positioned to continue to outperform retail in the year ahead.

Trend 7: Performance Diverging Again

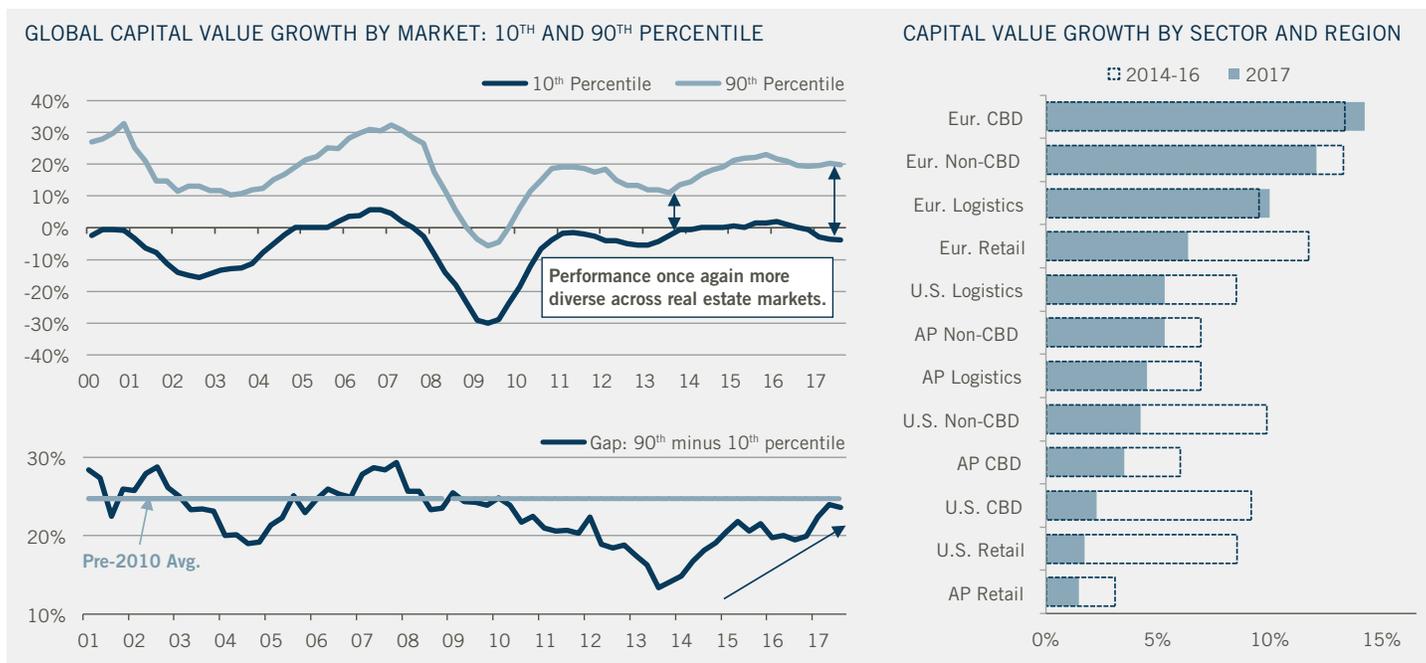
Differences in rental performance across markets are set to drive a continued divergence in value movements, reducing correlation and enhancing the benefits of diversification.

As the impact of yield compression fades – notably in the United States – value movements are increasingly being driven by the diverse outlook for occupier markets, and real estate performance is once again becoming more varied across sectors and geographies. Between 2010 and 2016, the gap between the best and worst performing segments of the market was unusually low, but has risen back towards its prior long-term average over the past year (Exhibit 7).

Real estate performance is once again becoming more varied across sectors and geographies.



EXHIBIT 7: GLOBAL CAPITAL VALUE GROWTH ANALYSIS



Note: Past performance is not a guarantee or a reliable indicator of future results.

Sources: CoStar, Cushman & Wakefield, JLL, PGIM Real Estate; As of December 17, 2017.

In 2017, the divergence of performance across sector and region was more pronounced than in the previous few years. For example, office markets in Europe are benefiting from low supply and rising rents, and still reporting yield compression – with the exception of the UK. In contrast, office yields are rising from low levels in New York where supply additions are dampening the rental growth outlook. In terms of sectors, retail is clearly underperforming, owing to weaker demand for physical store space and rising vacancy.

With yield impact fading, differences in rental market performance across markets are set to drive a continued divergence in value movements in 2018. While the returns environment is slowing, correlations between markets and sectors are coming down, substantiating the benefits of diversification.

Trend 8: Investors Looking Further Afield

As returns on traditional core assets move lower, more capital is flowing into real estate debt, infrastructure, and non-traditional real estate sectors.

As returns on traditional core real estate assets – most notably retail and CBD offices in gateway markets – move lower, it makes sense for investors to look as widely as possible for opportunities that deliver attractive risk-adjusted returns.

Real estate is increasingly being viewed as a part of a wider grouping of “real assets” along with other physical investments that have similar income-generating and value-storing characteristics, including infrastructure projects and natural resource investments, such as farmland or forestry.

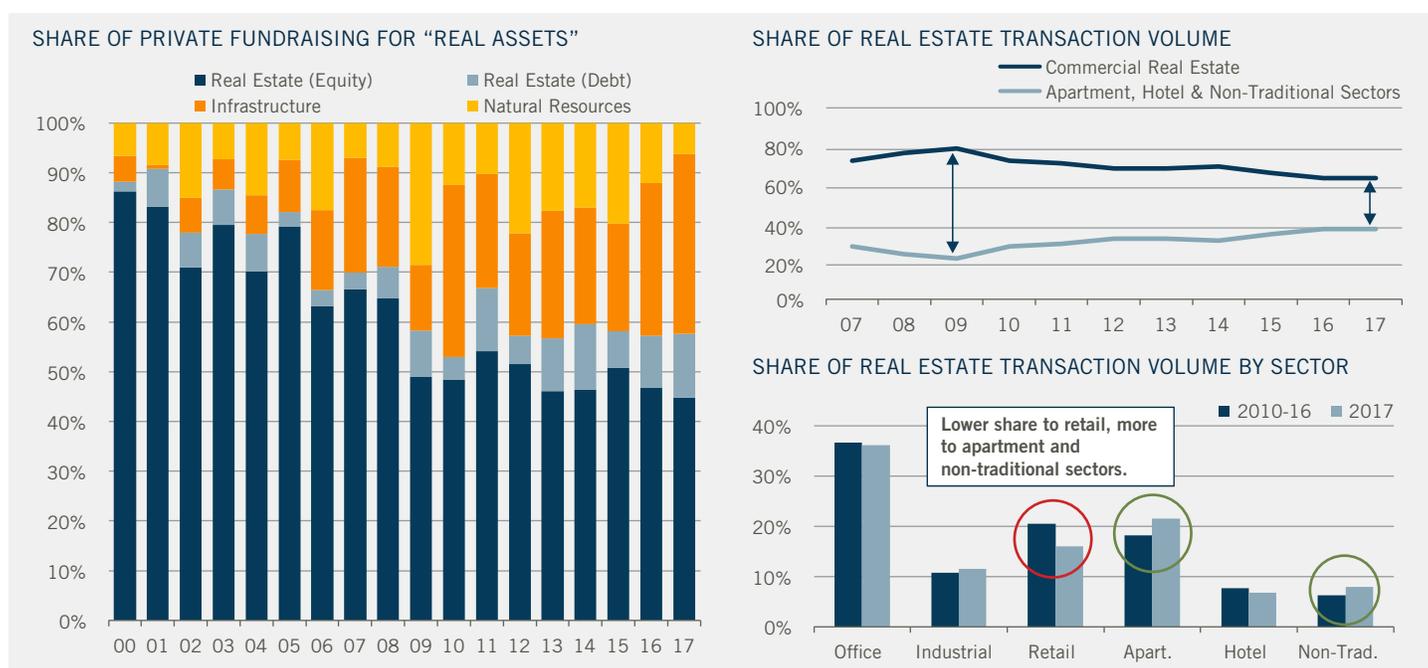


While real estate equity products continue to attract significant capital flows – with an estimated \$90 billion raised by private funds in 2017, according to Preqin – they are gradually losing share in the real assets space (Exhibit 8). Investments into natural resources have cooled over the past two years reflecting a cyclical weakness in the commodity cycle, but infrastructure funds are raising more capital owing to the perceived attractiveness of long income streams and their diversification potential.

Real estate debt funds that target junior debt or mezzanine-type investments are increasingly popular among investors, owing to a blend of fixed coupon returns, profit-share structures and – compared to a pure equity position in a similar investment – a degree of capital protection behind a first-loss position. Investor concerns about elevated values and ongoing regulatory shifts that are restraining bank lending point to debt funds increasing their market share in 2018 and beyond.

Real estate debt funds that target junior debt or mezzanine-type investments are increasingly popular among investors.

EXHIBIT 8: CAPITAL RAISING AND SHARE OF REAL ESTATE TRANSACTIONS BY SECTOR



Note: Past performance is not a guarantee or a reliable indicator of future results.

Sources: Preqin, Real Capital Analytics, PGIM Real Estate; As of December 17, 2017.

Within real estate, the preferences of equity and debt investors are also shifting. The share of investment activity in traditional "commercial" real estate sectors of office, retail and industrial has declined from close to 80% a decade ago to just 60% today. Comparing the post-global financial crisis period between 2010 and 2016 with 2017 shows that the biggest shift has been away from the retail sector, for which the occupier outlook has materially weakened.

In contrast, non-traditional real estate sectors – such as manufactured housing, self-storage and student housing – are reporting increased deal volume. Low returns on mainstream commercial assets are likely to fuel further demand for non-traditional sectors which typically offer higher yields, and often benefit from structural demand growth, such as aging populations or rising student numbers.



Conclusion

In many ways, the investment environment in 2018 remains favorable. Capital continues to target real estate, transaction volume remains elevated, interest rates are generally low and an improving global economic growth story is supporting demand among key occupier groups. Despite an uptick in a handful of major office markets, supply growth remains low too.

At the same time, conditions are increasingly challenging for investors. As monetary policy becomes gradually less supportive, low yields and elevated values represent a growing concern for investors, particularly as the rental growth outlook is moderate rather than standout. Competition for core assets is still high and underwriting target returns is difficult, not least because the large retail sector is struggling to adapt to rising online sales growth.

All of this points to an environment in which investors will have to look further afield and take on risk selectively to achieve desired results. Certain office markets, for example, offer strong short-term supply and demand fundamentals, while interest in non-traditional real estate sectors that offer structural growth potential continues to grow.

Lower real estate returns look inevitable as yield compression slows, but increasingly varied macro-driven performance of markets and sectors means diversification is more valuable. As the likelihood of a cyclical downturn or lull grows – in some parts of the market at least – debt investment funds that offer some protection behind a first loss position are gaining a stronger foothold in the market.

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