

Trends for 2019

Global Real Estate Trends Set to Shape the Next 12 Months

December 2018

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 2019 and beyond.

- 1. Tighter Monetary Policy Environment:** History suggests that monetary policy tightening will eventually be followed by slowing returns on real estate, although accommodative fiscal policy should help offset its impact.
- 2. Occupier Markets Holding Up:** Resilient global growth continues to support most occupier markets – office and logistics are recording strong demand and falling vacancy, but retail is struggling.
- 3. Supply Growth Threatened by Rising Construction Costs:** Capacity constraints and rising costs in the construction sector are dampening the supply pipeline and point to upside risks to the rental growth outlook.
- 4. The Rise of Flexible Offices:** Flexible offices are a fast-growing and increasingly prominent part of the office market, with the largest scale in major global gateway cities.
- 5. Yield Compression Slows Further:** Rising interest rates and upward pressure on the risk premium from policy uncertainty mean yield compression is set to slow further.
- 6. Transaction Volume Still Tracking Sideways:** Transaction volume is stable, although a recent increase in the average size of new funds points to a growing share of portfolio deals in 2019.
- 7. Retail Value Correction:** The prospect of value write-downs implied by retail REIT pricing suggests retail is going to remain out of favor in 2019.
- 8. More Operational Risk:** Low core returns and a rising share of value-add capital raising points towards further investment in operating assets that offer an additional risk premium.
- 9. Lender Discipline Persists:** A degree of caution persists among lenders, keeping loan-to-value (LTV) ratios down and creating an opportunity for a growing private debt fund sector.

Introduction

The current global real estate cycle counts among the longest in recent history, notably in the United States, which has now recorded almost a decade of uninterrupted capital value growth.

There is a sense of caution among investors and lenders, linked to concerns about elevated real estate pricing, a perceived lack of available stock and heightened political uncertainty. Transaction volume is stable, rather than accelerating, while use of leverage is lower than might be expected late in a cycle.

In addition, the policy environment is shifting. Global fiscal policy is loosening, but property investors are bracing for tighter monetary conditions. With interest rates edging up and previously supportive quantitative easing (QE) programs being scaled back, real estate yield compression is fading and returns are slowing.

Investors are aware that the cycle is not going to last forever. However, there is still plenty of capital targeting real estate and some causes for optimism about the outlook, at least in the near-term.

Above-trend global GDP growth, rising occupier demand and falling vacancy point towards opportunities to capitalize on favorable short-term momentum continuing in 2019. Constraints in the construction sector could dampen already low supply growth, implying upside risks to the rental growth outlook.

At the same time, shifting market dynamics are influencing the outlook for occupier and investment markets. Flexible offices are a growing part of the occupier landscape, while retail is increasingly out of favor with investors, with REIT pricing implying the threat of an impending value correction.

Low returns on core assets mean a shift towards value-add capital raising, and there is also growing interest in operating assets, which offer an additional risk premium to investors. Meanwhile, there are opportunities for private debt funds to lend against higher risk projects.

In summary, 2019 is set to be a year in which investors increasingly face challenges – from slowing returns, stock availability, an evolving policy environment, and shifting occupier and investment market dynamics. Concern that the cycle may turn needs to be balanced against ongoing opportunities, in the near-term, to take on additional risk and capitalize on favorable market momentum.

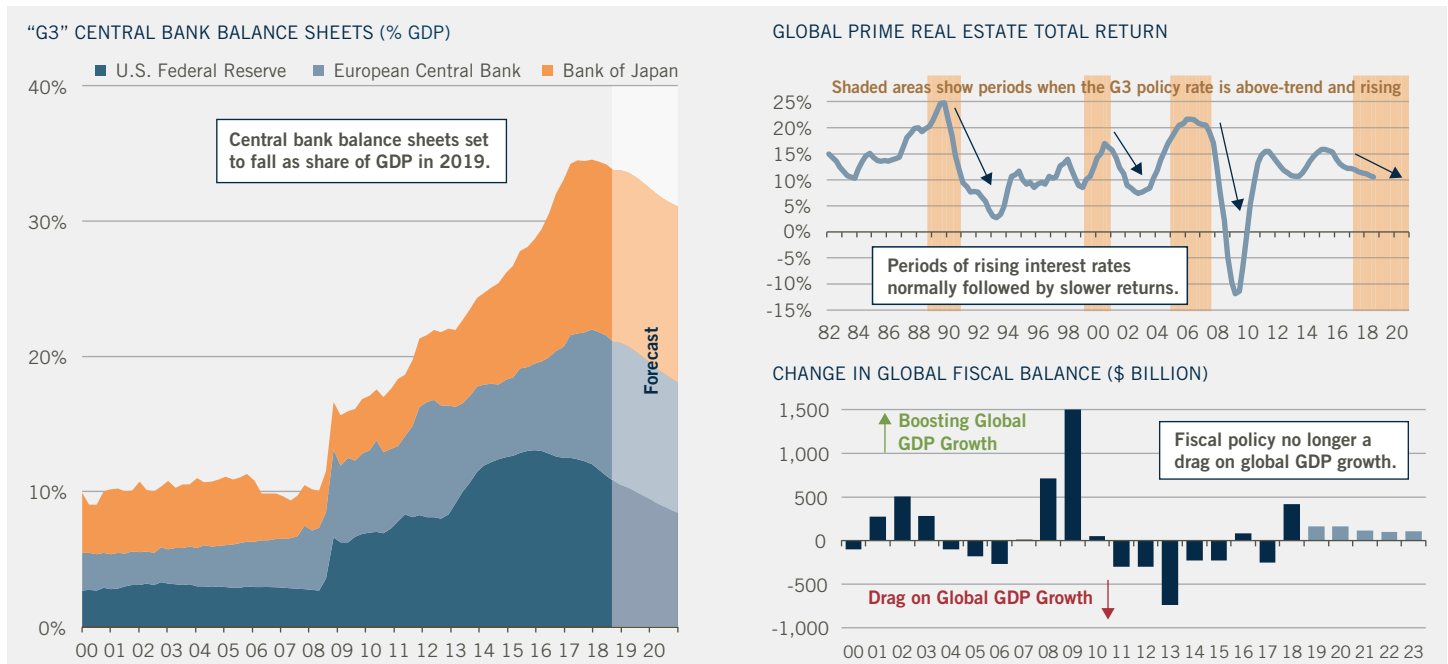
Trend 1: Tighter Monetary Policy Environment

History suggests that monetary policy tightening will eventually be followed by slowing returns on real estate, although accommodative fiscal policy should help offset its impact.

The tide of central bank liquidity is turning. The balance sheet of the “G3” central banks has started to shrink and is expected to decline further as a share of GDP in 2019, notably as the ECB joins the Fed in ending asset purchases under their QE program (Exhibit 1).

In terms of the real estate cycle, a reversal of QE could be significant. By acquiring financial assets and holding interest rates lower than they otherwise would have been to encourage investments in risk assets such as real estate, central bank actions have boosted global real estate values by an estimated 20% in recent years.

EXHIBIT 1: GLOBAL CENTRAL BANK LIQUIDITY, REAL ESTATE RETURNS AND FISCAL POLICY



Sources: Bloomberg, Oxford Economics, CoStar, Cushman & Wakefield, JLL, PGIM Real Estate; As of December 2018.

However, a number of factors suggest that real estate investors should not fear a sharp correction caused by a reversal of central bank support. The first is that, on the whole, policy remains relatively loose. Aside from the Fed, interest rate increases are set to be gradual. In any case, central banks – tasked with maintaining financial market stability – would be likely to react to any sharp drop in asset prices with renewed policy action.



A second reason is that the pace of QE withdrawal is set to be more gradual than its implementation. Rather than actively selling down holdings, central banks are simply opting not to roll over maturing assets, allowing financial markets a period of measured rotation back to private capital sources.

While a sharp correction owing to monetary policy remains unlikely, history suggests that periods of above-trend and rising interest rates are eventually followed by slowing returns on real estate. Tighter monetary conditions and a sustained – albeit gradual – increase in policy rates among major central banks point towards a continuation of the trend of slowing real estate returns in 2019 and beyond.

One factor that should help offset the impact of policy on real estate markets is easing fiscal policy. Between 2011 and 2017, government budgets were reined in by a cumulative 6.5% of GDP, weighing on economic activity. In contrast, 2018 saw fiscal policy being loosened, most notably in the United States. This trend is set to continue in coming years, providing additional support to economic growth and, in turn, occupier demand in real estate markets.

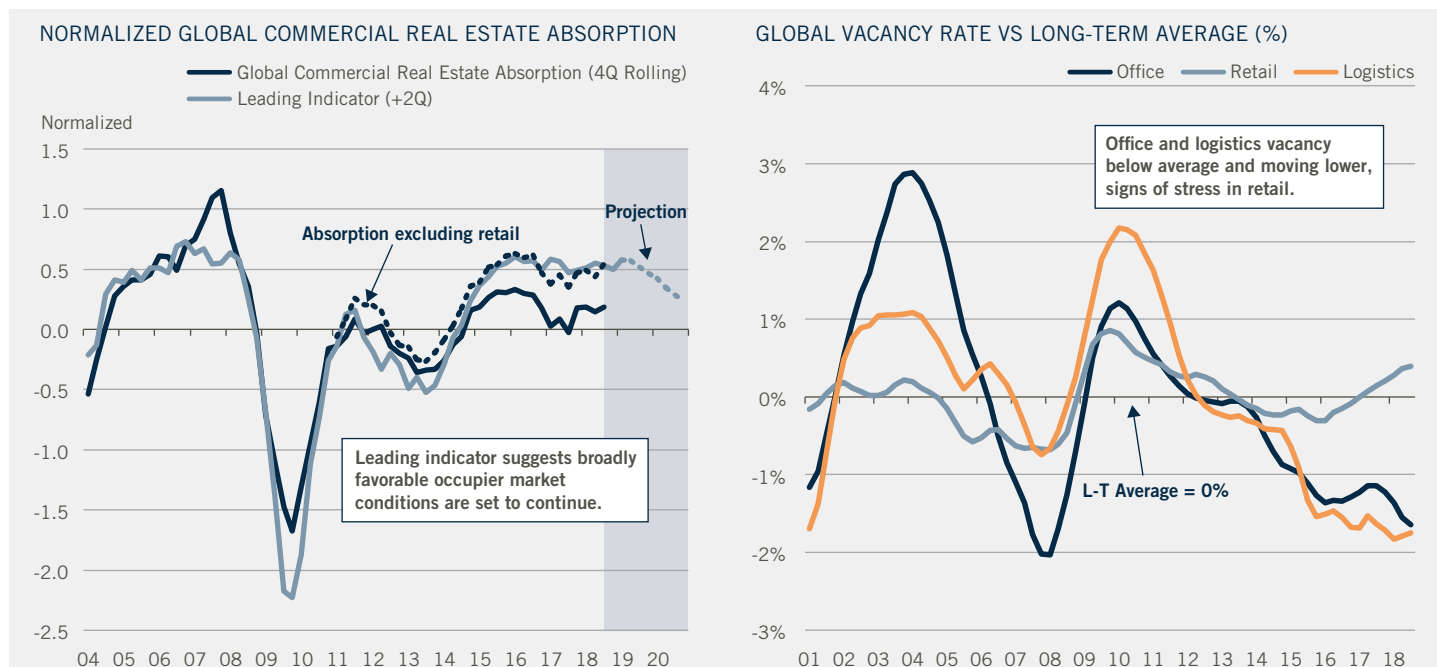
History suggests that periods of rising interest rates are eventually followed by slowing returns on real estate.

Trend 2: Occupier Markets Holding Up

Resilient global growth continues to support most occupier markets – office and logistics are recording strong demand and falling vacancy, but retail is struggling.

Despite numerous ongoing threats – rising political uncertainty, Italian public debt sustainability and slowing growth in China, to name but a few – the global economy continues to be resilient. Aggregate GDP growth is set to remain above 3% in 2019, compared to an average of 2.5% over the past decade.

In turn, above-trend growth remains supportive of real estate demand. Based on a simple leading indicator constructed by using hiring intentions and patterns of consumer spending, commercial property absorption is set to remain above average (a normalized reading of zero) well into 2019 and, if forecasts for key variables such as employment prove correct, into 2020 and beyond (Exhibit 2).

EXHIBIT 2: OCCUPIER MARKET DEMAND AND VACANCY

Sources: Oxford Economics, Manpower, Eurostat, CoStar, Cushman & Wakefield, JLL, PGIM Real Estate; As of December 2018.

However, the contrast in performance across sectors is becoming increasingly pronounced. The office and logistics sectors are recording occupier expansion, rising absorption and vacancy that is below trend and falling, while retail is struggling.

Retailers continue to face pressure on profitability from rising online spending, and look set to be in consolidation mode for some time to come. Absorption of retail space remains weak. Retail availability remains low relative to other commercial sectors – aided by an absence of new supply – but vacancy rates have nevertheless risen to their highest level since the depths of the global financial crisis.

Trend 3: Supply Growth Threatened by Rising Construction Costs

Capacity constraints and rising costs in the construction sector are dampening the supply pipeline and point to upside risks to the rental growth outlook.

Through the current cycle, supply growth across all commercial sectors has been lower than in past expansions (Exhibit 3). In part, a slower pace of stock additions reflects shifts in occupier markets: for example, office occupiers requiring less space per worker than in the past, and consolidation rather than expansion among retailers.

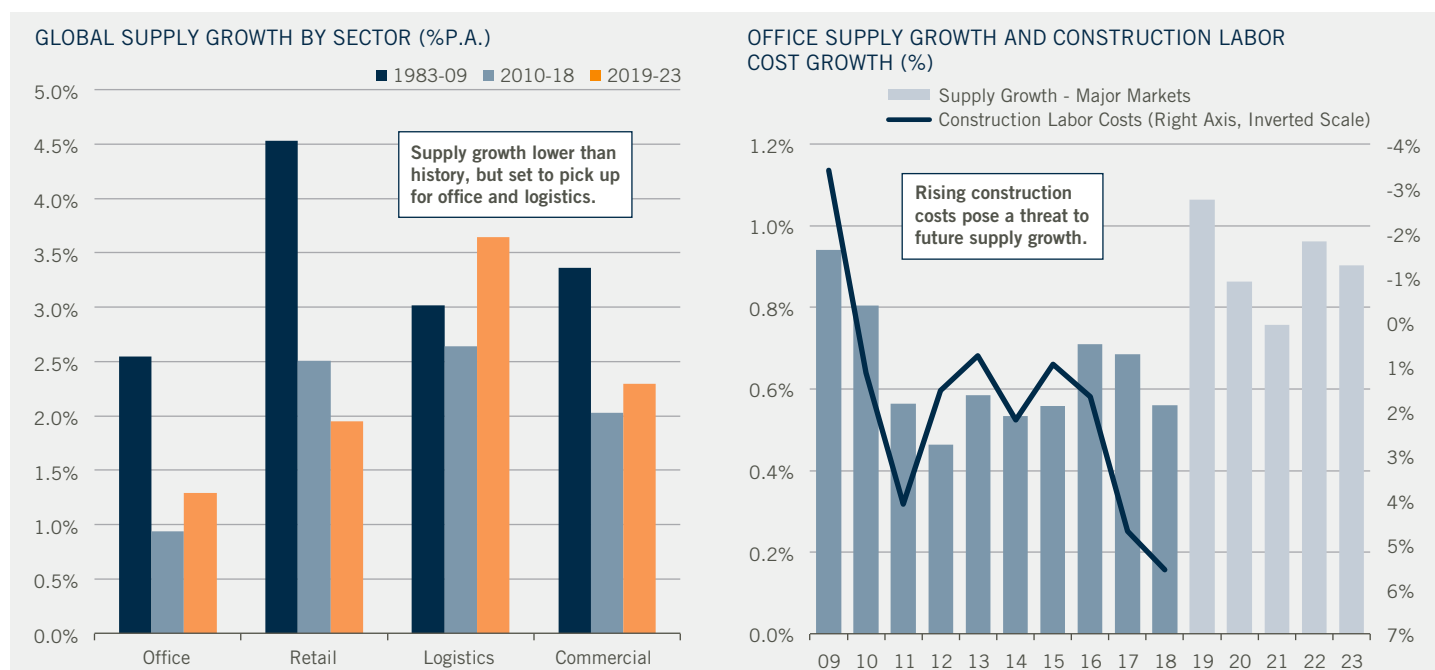
The office and logistics sectors are recording occupier expansion, rising absorption and vacancy that is below trend and falling, while retail is struggling.



Cautious of repeating damaging periods of oversupply recorded in past cycles, developers and lenders – who are also affected by a stricter regulatory environment – have also adopted a relatively cautious approach to construction this time around.

However, vacancy is falling in office and logistics markets. With demand set to continue expanding, more space is set to be required, most notably in fast-expanding logistics hubs and in CBD office markets, such as Munich and Paris, which have very limited availability. Over the next five years, the pipeline points to space being added at a faster pace than has been recorded since 2010.

EXHIBIT 3: GLOBAL SUPPLY GROWTH AND CONSTRUCTION COSTS



Sources: CoStar, Cushman & Wakefield, PMA, JLL, Eurostat, U.S. Bureau of Labor Statistics, Oxford Economics, PGIM Real Estate; As of December 2018.

However, constraints faced by the building industry suggest that supply growth may end up weaker than implied by the current pipeline. Labor costs in the global construction sector are currently rising at an annual rate of 5.6%, the fastest pace of increase in 10 years.

While construction wages are only one part of the equation when it comes to development projects – alongside factors such as materials prices, land availability and expected tenant demand – rising labor costs are symptomatic of constraints the sector is facing.

Over the past two years, completions of new office space in major markets have fallen back as costs have risen, even though values – based on a historical comparison – look high enough to support development activity. In markets such as Germany, the effect has been exacerbated by labor shortages.

Constraints faced by the building industry suggest that supply growth may end up weaker than implied by the current pipeline.



The upshot is that some projects are likely to face delays or postponement as rising construction costs undermine development business plans. In turn, an uncertain pipeline and lower supply growth point to upside risks to the outlook for rental growth.

Competition for increasingly scarce grade-A space in office markets could drive up CBD rents and force more occupiers into submarkets which have more available space. In logistics markets, constraints on supply additions could mean faster rental growth, notably in Continental Europe where moderate rental growth has lagged the United States in recent years.

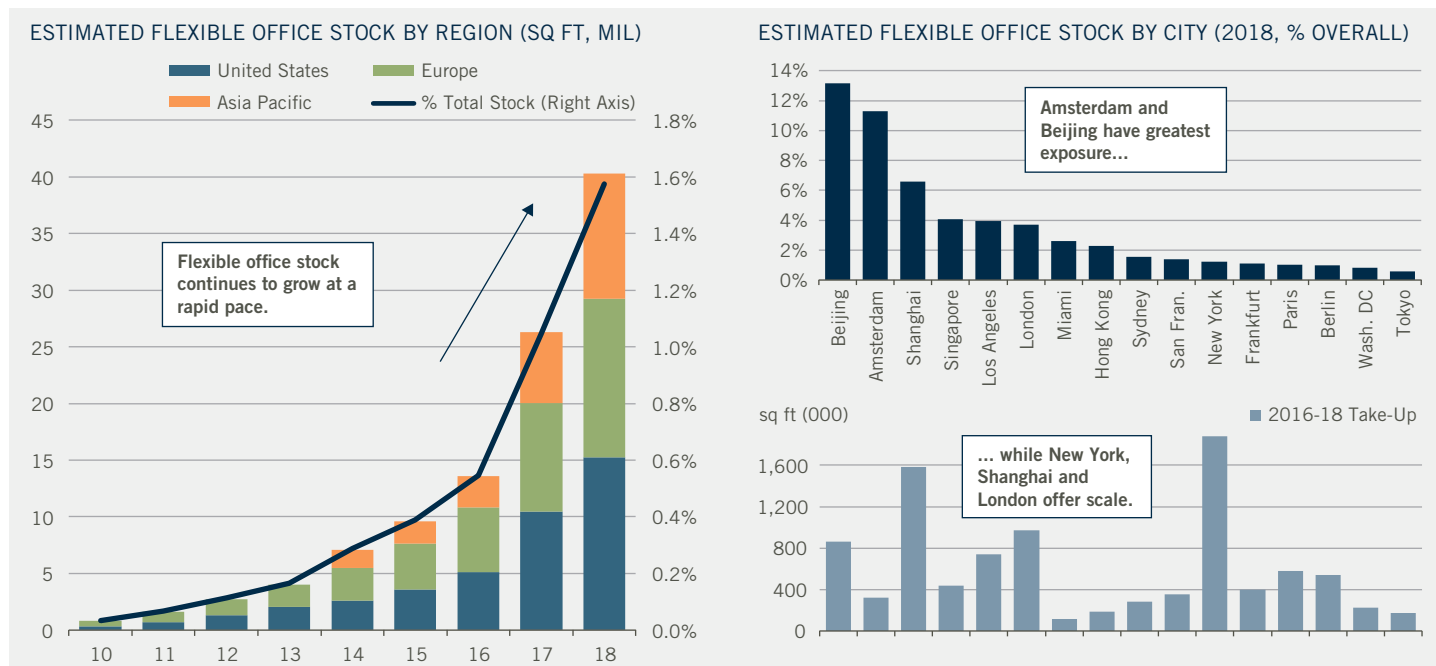
Trend 4: The Rise of Flexible Offices

Flexible offices are a fast-growing and increasingly prominent part of the office market, with the largest scale in major global gateway cities.

Like the prevalence of online retail spending, the rise of flexible offices is symptomatic of rapid changes that are occurring in occupier markets across the world. In part, it can be linked to the adoption of new technologies that make remote working easier, alongside shifting preferences of employers – who, for example, are demanding increasingly flexible lease terms and a higher level of service – and of employees, who are increasingly preferring convenient modern workspaces.

The growing influence of flexible working is clearly a global trend. In a sample of 20 major office markets, there is now an estimated 40 million square feet of space dedicated for use by flexible office providers, up four-fold since 2015 (Exhibit 4).

EXHIBIT 4: STOCK AND TAKE-UP OF FLEXIBLE OFFICE SPACE



Sources: CoStar, Cushman & Wakefield, JLL, PMA, Colliers, PGIM Real Estate; As of December 2018.



However, while growth continues to accelerate, the overall influence remains limited for now, with less than 2% of city office stock occupied by flexible office providers. Amsterdam and Beijing have the most significant exposure, while the scale of leasing activity among flexible office providers is greatest in the major gateway cities of London, New York and Shanghai.

A shift towards increasingly flexible working practices looks set to continue, and take-up among flexible office providers – along with the amount of stock dedicated to its usage – is expected to rise further in the coming years. One immediate implication is that such usage requires less space per worker than traditional occupier models, so less supply will be needed to meet demand created by occupier expansion than in the past.

For landlords, there are drawbacks compared to traditional occupiers, not least via often highly flexible lease terms and unproven business models of operators that push up covenant risk. In addition, the jury is still out as to how the sector will fare during a slowdown as demand among small businesses – a key occupier group – is typically among the hardest hit.

Tenant expectations appear to be shifting in favor of the operational experience of office space. Ongoing growth means most investors will be increasingly exposed to flexible offices over time and the sector is set to remain a prominent feature of the market in 2019.

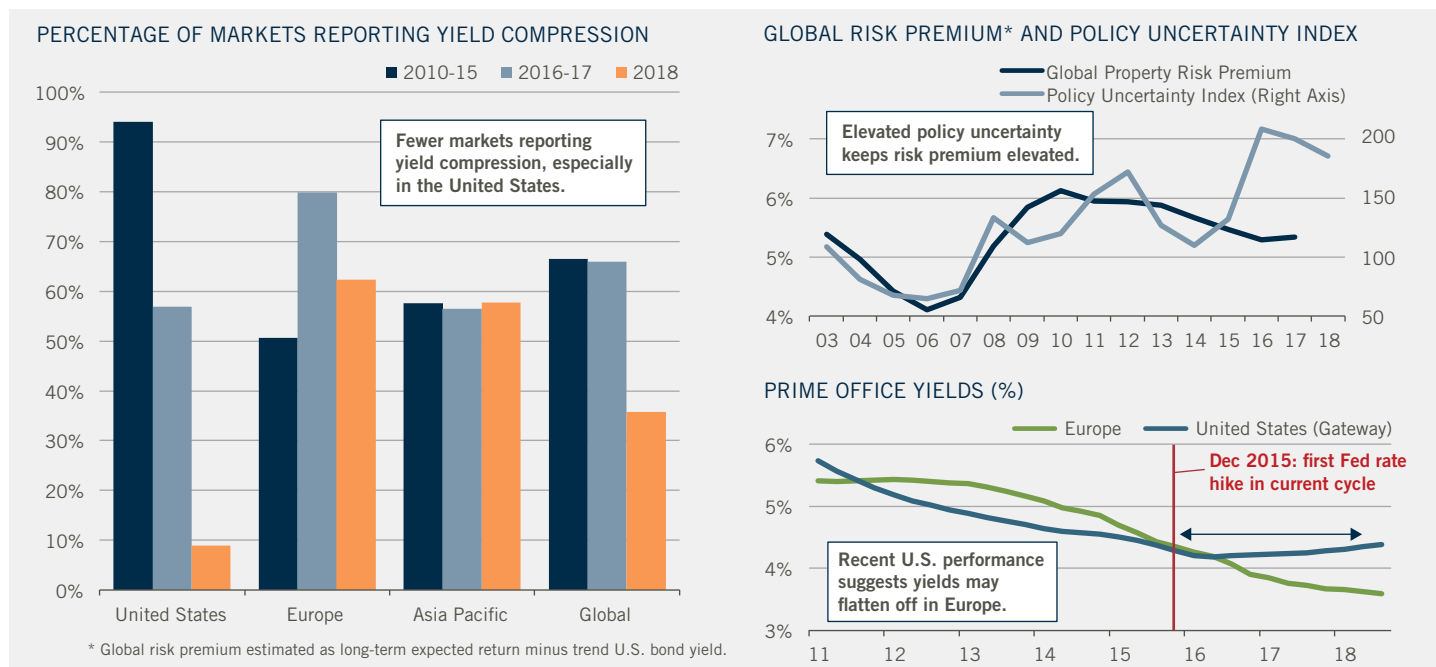
Trend 5: Yield Compression Slows Further

Rising interest rates and upward pressure on the risk premium from policy uncertainty mean yield compression is set to slow further.

The era of sustained and synchronized yield compression – that was fueled by central bank liquidity and low interest rates, and drove significant increases in global real estate capital values – is coming to an end.

Diminishing yield compression is already underway, notably in the United States where, for example, yields have edged upwards in a number of major office markets (Exhibit 5). Pricing momentum remains stronger in Europe and Asia Pacific but, overall, only one-third of global markets currently have lower yields than a year ago. The same measure has been consistently around two-thirds globally since 2010.

Take-up among flexible office providers – along with the amount of stock dedicated to its usage – is expected to rise further in the coming years.

EXHIBIT 5: GLOBAL YIELDS AND RISK PREMIUM

Sources: CoStar, Cushman & Wakefield, JLL, Economic Policy Uncertainty, PGIM Real Estate; As of December 2018.

With interest rates expected to rise in a number of key markets in 2019 – not just in the United States as in previous years – a further slowdown in yield compression is expected. In addition, rising policy uncertainty in many parts of the world threatens to put upward pressure on the real estate risk premium, limiting its scope to absorb rate increases.

For investors in Europe, where there are ongoing concerns about low prime yields in many markets, the experience of the United States since the Fed started increasing rates in December 2015 provides some comfort. In that time, real estate yields have, in general, remained stable and returns have held up relatively well.

With interest rates expected to rise in a number of key markets in 2019, a further slowdown in yield compression is expected.

Trend 6: Transaction Volume Still Tracking Sideways

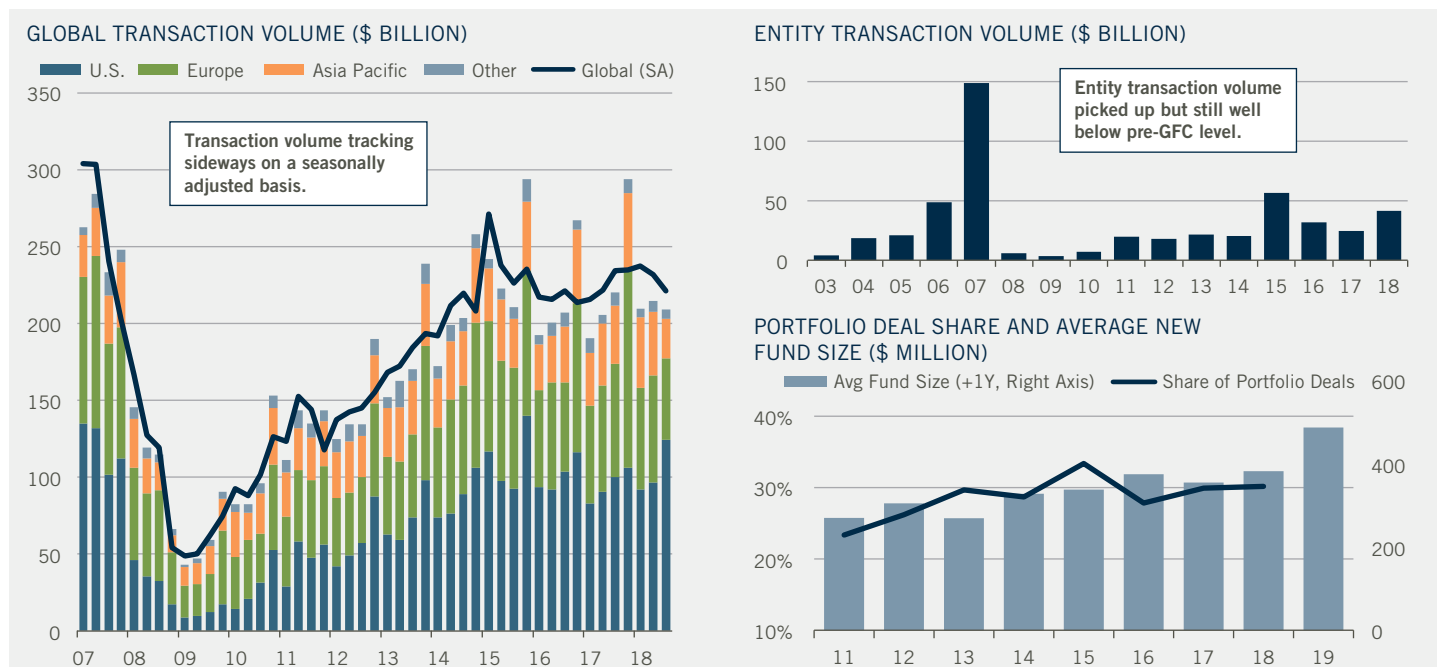
Transaction volume is stable, although a recent increase in the average size of new funds points to a growing share of portfolio deals in 2019.

In aggregate, global real estate transaction activity has been tracking sideways for some time. Since mid-2015, the volume of income-producing assets being traded has remained in a seasonally adjusted range of \$210 to 240 billion per quarter (Exhibit 6).

While volume remains elevated compared to recent history, it is being held back by factors such as caution among investors, historically low yields, a perceived lack of available stock in many major markets, and a lack of finance options at higher LTV ratios.



EXHIBIT 6: GLOBAL TRANSACTION VOLUME



Sources: Real Capital Analytics, Preqin, PGIM Real Estate; As of December 2018.

In addition, recent reported deal activity has been flattered by so-called entity transactions, a subset that includes, for example, M&A activity in REIT markets.

Rather than reflecting new capital sources or a churn of existing investors into new fund vehicles – creating a point at which there is a choice to rotate into other asset classes – mergers are more akin to a recategorization of existing deployed capital. However, while global entity transactions increased by 70% in 2018, their volume – and potential distorting effect on activity – pales in comparison to 2007.

Looking ahead, 2019 looks set to be another similar year for overall real estate transaction volume. The pace of fund raising activity remains broadly unchanged, suggesting there will be a similar amount of capital targeting real estate as there was during 2018.

One upside risk to activity comes from portfolio deals, which have been relatively muted over the past year. The average size of newly-raised funds has increased sharply and points towards an increasing need for larger transactions as managers look to get the capital deployed. If the historical pattern holds, portfolio deals could account for more than one-third of capital deployed in 2019.

The average size of newly-raised funds has increased sharply and points towards an increasing need for larger transactions.



Trend 7: Retail Value Correction

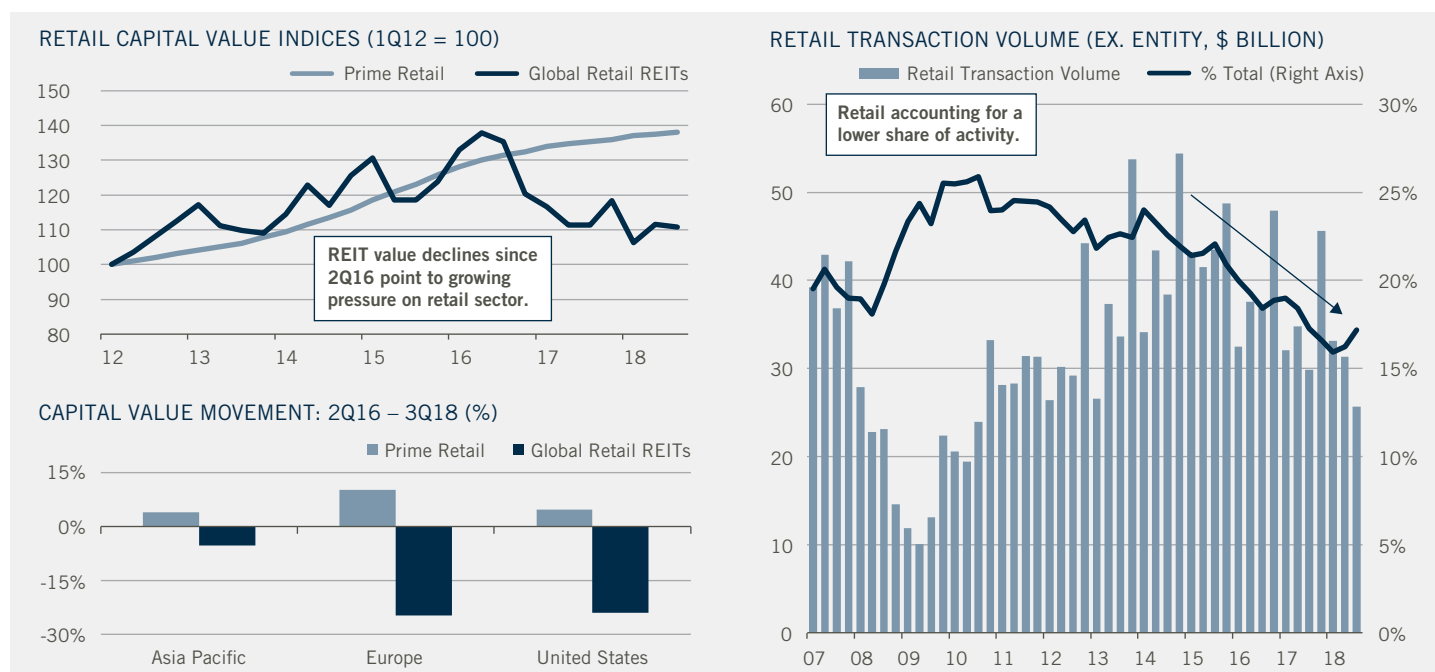
The prospect of value write-downs implied by retail REIT pricing suggests retail is going to remain out of favor in 2019.

A striking feature of today's real estate market is a disconnect between investor sentiment towards a retail sector increasingly threatened by rapid shifts to online spending, and recorded performance. While retail rental growth has slowed as vacancy edges up – and, at the very least, is much weaker than in previous cycles – headline rents are either stable or rising across many formats and geographies. Similarly, little distress is visible in prime yields. In contrast to broader indicators of retail market stress, appraised values are holding up.

Data from the listed sector suggest retail values are going to come under increasing pressure in 2019. Global retail REIT values have now fallen about 15% since mid-2016 – in sharp contrast to modest increases in appraised values in the private market (Exhibit 7). The gap is most pronounced in Europe and the United States where physical retailers are under greatest pressure.

Data from the listed sector suggest retail values are going to come under increasing pressure in 2019.

EXHIBIT 7: RETAIL SECTOR CAPITAL VALUES AND INVESTMENT VOLUME



Sources: CoStar, Cushman & Wakefield, JLL, Bloomberg, Real Capital Analytics, PGIM Real Estate; As of December 2018.

Of course, REITs can be volatile and subject to overcorrections, but much of the recent decline has coincided with a period of rising wider equity markets, so the downward pressure is at least partly attributable to real estate-specific factors rather than wider market tensions. Many retail REITs are now trading at significant discounts to their book values.



While REIT re-pricing may have gone too far, market participants are simply reacting to the revenue pressures – either realized or anticipated – that are not yet showing up in private valuations. However, transaction volume is already slowing. Retail's share of overall volume has dropped from close to 25% in the early part of the post-crisis recovery to about 17% in 2018. With the prospect of value write-downs and no obvious sign of pricing adjustments to reflect this, retail is set to remain out of favor in 2019.

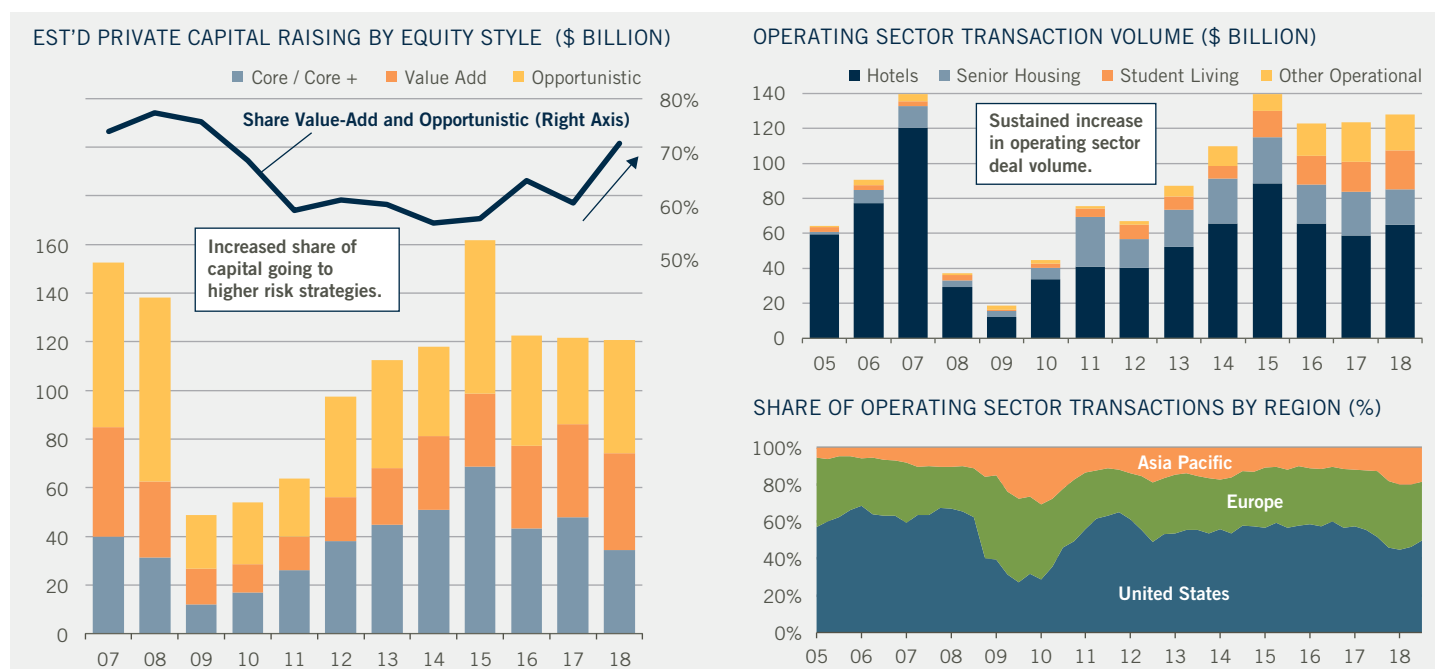
Trend 8: More Operational Risk

Low core returns and a rising share of value-add capital raising points towards further investment in operating assets that offer an additional risk premium.

Rising interest rates, a lengthy cycle and moderating outlook for returns on buy-and-hold core assets in major markets present investors with a choice: either rotate into lower volatility sectors and strategies that look relatively attractive in a low returns environment – such as apartments or senior debt – or look to take on more risk in an effort to capture a return premium.

There are some signs that investors are becoming less cautious. Overall fundraising for equity strategies remained broadly flat in 2018, but the share of capital going to higher risk value-add or opportunistic strategies rose to 71%, significantly above the 60% recorded over the past five years (Exhibit 8).

EXHIBIT 8: EQUITY CAPITAL RAISING AND OPERATING SECTOR INVESTMENT VOLUME



Sources: Preqin, Real Capital Analytics, PGIM Real Estate; As of December 2018.



Owing to a favorable combination of rising occupier demand and low supply, office and logistics markets continue to offer opportunities for higher risk strategies. In the office sector, this is linked to creating grade-A stock by repositioning existing stock or, as in the logistics sector, developing new space to meet the requirements of an expanding occupier base.

However, elevated pricing in major markets and a struggling retail sector imply a limited opportunity set for value-add and opportunistic investors in traditional commercial assets. Instead, investors are turning to operating sectors – which combine real estate with a branded operating business, such as a hotel or senior housing community – that have recorded above-trend activity in each of the past four years.

The attractions of investments into operating assets include: an additional risk premium as sectors such as student living and senior housing move towards becoming fully institutionalized; inflation protection and growth potential in markets that are often linked to favorable trends such as aging population or rising tourism flows; and the opportunity to enhance value at the platform level, for example by managing costs or via effective branding and marketing.

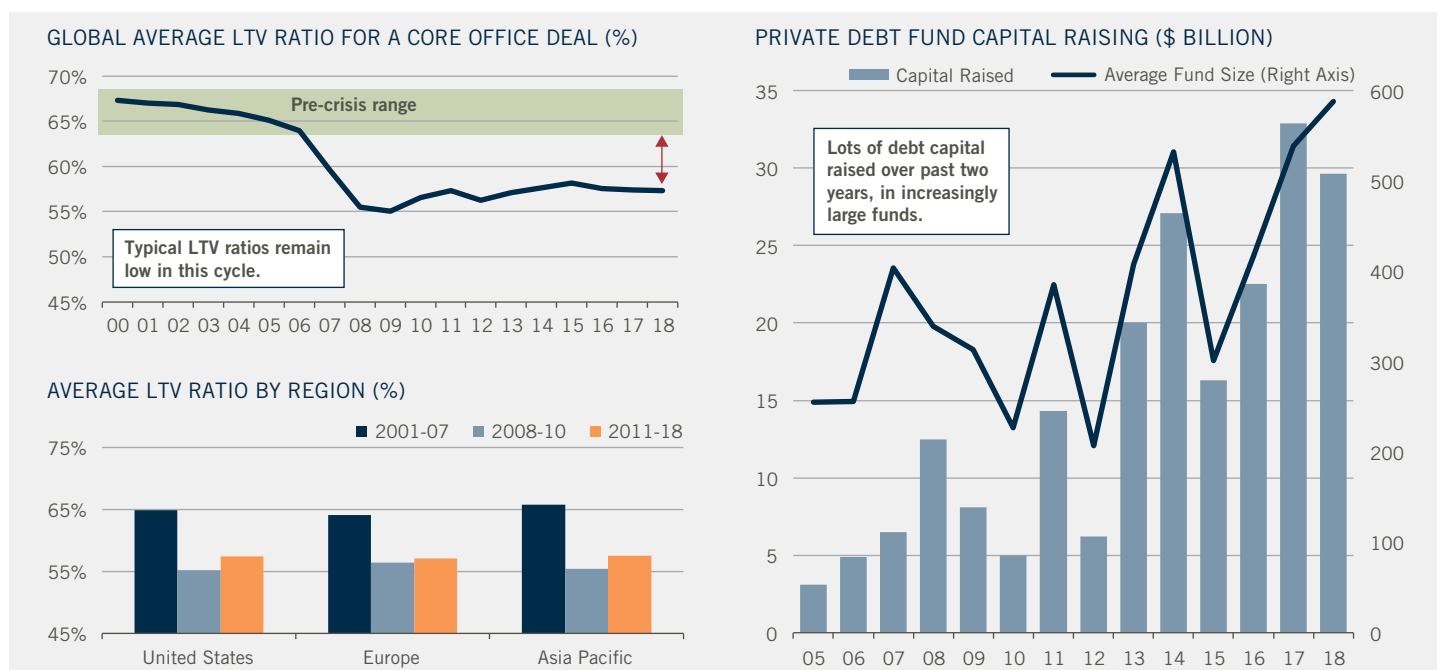
One notable trend within the grouping is a shift away from a market dominated by hotels, which accounted for about 90% of operating asset investment volume prior to 2007 but is down to about 50% today as investors broaden their horizons to other niche sectors. In addition, investment is growing rapidly in all regions, most notably in Asia Pacific where volume grew by 50% over the past year.

Trend 9: Lender Discipline Persists

A degree of caution persists among lenders, keeping loan-to-value (LTV) ratios down and creating an opportunity for a growing private debt fund sector.

While there are tentative signs of an improving risk appetite in the wider real estate transactions market, lenders remain disciplined. LTV ratios available for typical deals have barely risen from their trough recorded in the aftermath of the global financial crisis. For example, the average LTV ratio available for global core office deals is currently about 57%, compared to pre-crisis norms of 65 to 70% (Exhibit 9).

Investors are turning to operating sectors – which combine real estate with a branded operating business, such as a hotel or senior housing community.

EXHIBIT 9: TYPICAL LTV RATIOS (BANKS AND INSURERS) AND PRIVATE DEBT FUNDRAISING

Sources: Preqin, Real Capital Analytics, PGIM Real Estate; As of December 2018.

While some loan terms are softening – interest-only loans are again becoming more prevalent in the United States, for example – the pattern of low LTVs is evident across regions. This likely reflects several factors. One is simply a degree of caution that persists as a legacy of the last downturn, with lenders unwilling to stretch too far late in the cycle. Based on an assumption that a future downturn is unlikely to be as severe as the one caused by a full-blown financial crisis in 2008, the current approach may prove too cautious.

A second, linked reason simply relates to a stricter regulatory environment that prohibits some lenders – banks in particular – from lending at higher LTVs. This helps to explain why terms have not eased that much despite apparent “competition” among lenders for the best deals.

The side-effect of a relatively cautious approach by traditional lenders – that extends to other terms such as covenants or in-place income requirements that restrict financing for developments and other non-income producing assets – is that it is creating opportunities for non-traditional debt providers.

While private debt funds remain a relatively small part of the overall lending universe, they have raised a significant volume of capital in recent years and are growing in influence. Their greater flexibility and lower regulatory burden allow lending at higher LTVs – either via whole loans or junior participations – as well as financing for value-add or development deals where interest may be accrued, rather than current paid.

While private debt funds remain a relatively small part of the overall lending universe, they have raised a significant volume of capital in recent years and are growing in influence.



Conclusion

Unlike in recent years, when investors became used to increasingly supportive conditions as time went on, 2019 looks set to be a more challenging year than 2018 for global real estate.

Returns on core assets are slowing and policy headwinds are strengthening in the form of QE withdrawal and rising interest rates. Shifting market dynamics imply threats to existing occupier and investor business models, while the length of the current cycle means that fears of a correction are growing.

Yet capital is still targeting the sector and transaction activity, while stable, remains elevated. Shifting market dynamics imply opportunities as well as threats – for example, providing flexible office space, or investing in operating assets that offer a risk premium.

Similarly, a heightened degree of caution in parts of the market seems overdone, and points to opportunities. Low supply growth – a product of cautious lenders and constraints among developers – implies upside risks to rental growth, while a reluctance among traditional lenders to lend at elevated LTV ratios is stimulating activity among private debt funds.

The possibility of a market correction or downturn is set to remain a nagging doubt for markets during 2019 and implies a dilemma: take some risk off the table and accept lower returns, or take on additional risk to capitalize on favorable momentum and aim to grow values in the short-term?

An increased share of value-add capital raising and interest in operating assets that offer growth potential suggests many investors are still looking for momentum, while capital flowing towards debt funds points to reducing risk exposure. Until there is a correction, market conditions in which investors seek to achieve an optimal mix of offense and defense in their portfolios seem set to continue.

Unlike in recent years, when investors became used to increasingly supportive conditions as time went on, 2019 looks set to be a more challenging year than 2018 for global real estate.

Investment Research Team – Key Contacts

Global

Dr. Peter Hayes
Managing Director
Global Head of Investment Research
peter.hayes@pgim.com

Americas

Lee Meniffee
Managing Director
Head of Americas Research
lee.meniffee@pgim.com

Alison Jacobs
Executive Director
alison.jacobs@pgim.com

Frank Nitschke
Executive Director
frank.nitschke@pgim.com

Kelly Whitman
Vice President
kelly.whitman@pgim.com

Bradley Doremus
Assistant Vice President
bradley.doremus@pgim.com

Dean Joseph Deonardo
Associate
dean.joseph.deonardo@pgim.com

Dominique Coleman
Analyst
dominique.coleman@pgim.com

Phoebe Keegan
Analyst
phoebe.keegan@pgim.com

Yvonne White
Research Assistant
yvonne.white@pgim.com

Europe

Greg Kane
Executive Director
Head of European Research
greg.kane@pgim.com

Florian Richter
Assistant Vice President
florian.richter@pgim.com

Matthew Huen
Analyst
matthew.huen@pgim.com

Asia Pacific

Cuong Nguyen
Executive Director
Head of Asia Pacific Research
cuong.nguyen@pgim.com

Kai Yip
Assistant Vice President
kai.yip@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.

These materials are for informational or educational purposes only. The information is not intended as investment advice and is not a recommendation about managing or investing assets. In providing these materials, PGIM is not acting as your fiduciary.

© 2018 PFI and its related entities.

