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2022 was a year of unforeseen events and geopolitical upheaval. Uncertainty remains in 2023 but opportunities in real estate remain across the world.

Real Estate – understanding the new normal

Welcome to the first edition of our Global Outlook for Real Estate



2022 was a year of many unforeseen events – from geopolitical upheaval leading to slowing economies around the world, to surging inflation and rising interest rates – all marking the end of the property cycle. The latter part of 2022 was definitely more challenging, and uncertainty will continue into 2023 until the macro-economic picture becomes clearer.

Supply-chain pressures and high energy prices that have seen decades-high inflation levels and a generational squeeze on household incomes will begin to ease and inflation will fall back, perhaps enough to prompt policy rates to stabilise in the latter half of the year, but progress will no doubt be slow. Major world economies will also slow but the fall in growth is expected to be more modest than perhaps thought even only a few months ago. Crucial elements to watch for are how deep any recessions are and how quickly economies rebound.

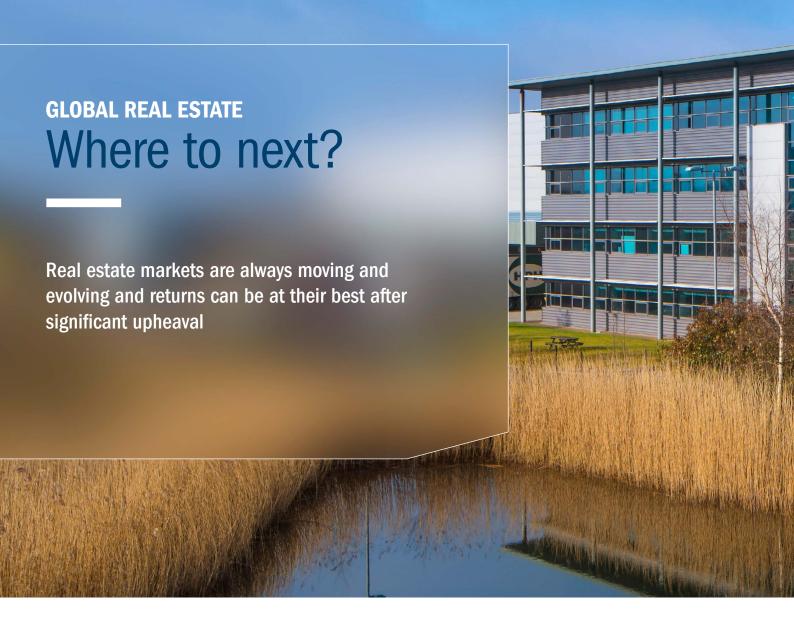
Higher interest rates will be a key driver of the reset of real estate markets in 2023 after a prolonged period of ultra-loose monetary policy. The more expensive financing will see yields soften and a value correction across all sectors. Even as markets slow and benchmark pricing finds a new norm, opportunities will remain in real estate across the world.

Some opportunities will be on a shorter horizon and play to equity investors and the window of opportunity is expected to be narrow. Others will be on a longer-term horizon as long-term cyclical trends are favourable to high quality centrally located stock as hybrid working becomes the norm; logistics, particularly in undersupplied markets dominated by lower grade stock; and urban logistics, as consumers demand ever shorter deliver times. There is also a need to address residential, a chronically undersupplied sector that also provides a level of inflationary hedge. In parallel we are seeing an accelerated shift to more energy efficient buildings and ESG (environmental, social and governance) really coming to the fore.

2023 will be nothing if not interesting.

Stewart Bennett

Global Head of Alternatives



There was a definite air of positivity in real estate markets in January and February 2022. Covid restrictions had largely lifted and the investment community was optimistic about the strength of the real estate market. Fundamentals were solid, the occupational market was robust and there was a realistic level of achievable returns. But in late February the invasion of Ukraine occurred and ushered in an uncertainty which remained throughout the year.

As the subsequent price correction continues to unfold there will be varied performance across portfolios which will largely depend on the quality of assets and the breadth of sectors those assets are in. More occupiers are looking to secure space that provides them with higher levels of efficiency, not only in a bid to reduce costs but to attract and retain talent that are aligned to greener credentials. This will increasingly come at the cost of brown discounts needed for older stock as green premiums for new stock are seen as the norm and over time will not attract a premium but rather be expected – the balance of power continues to shift to occupiers. The resilience within the occupational sector over the

past 12 months will lead to longer-term capital preservation for landlords as they look to secure good quality space.

Opportunities exist not only in retrofitting older stock – if the balance between cost and potential income streams stacks up given current inflated costs of materials and labour – but also in identifying overlooked areas with growth potential. Quality, be it immediately acquired in standing stock or realised through refurbishment and repositioning, is the way forward, regenerating and/or strengthening city centres and urban areas.

ESG is much documented and talked about over the past few years, but it is probably fair to say that its importance has crystallised over the past 12-18 months. Market expectations have changed and acquisitions are now being made with ESG credentials at the heart of the decision-making process. Capex programmes are integrating them as part and parcel, rather than a separate line item in the cashflow. It is also fair to say that the E and the G are more evolved than the S, which remains a harder element to measure and thus implement but this will come.



As such, 2023 will be a year with a lingering layer of uncertainty attached to it. Real estate investors are increasingly risk averse, even though parts of the market continue to support both income and growth, underpinned by robust structural drivers such as the continuing onward march of online consumption and the lack of supply of quality housing with affordable rents. Preserving value will be at the forefront of investors' intentions. With energy costs having soared across Europe since March 2022 and interest rates following suit, this has refocused minds at several levels. Preserving and creating value for the future has really risen to the fore. But despite the fragility of some economies in Europe and the wait-and-see approach adopted by a number of

Quality, be it immediately acquired in standing stock or realised through refurbishment and repositioning is the way forward

real estate investors, there will also be opportunities. In times of more restrained capital growth, with income becoming a greater proportion of overall returns, yield advantage strategy combined with a top-down approach could lead to additional outperformance.

It is worth remembering that those with a vested interest in real estate need to try and look through the short-term haze and deploy strategies that answer to longer-term trends such as hybrid working and the continued shift of some consumption to online, or the lack of the right sort of housing in the right areas. There is perhaps a misguided expectation that we are heading towards some "fixed state". But real estate markets are always moving, and trends will continue to evolve and impact the solutions the sector can deliver. It is often the years after a recession or a period of significant upheaval that the real estate sector delivers and has the potential to offer the best vintage of investments.

So, in 2023 whilst we don't have all the answers, the direction of travel is clearer.

UK

Recovery becomes more evident in the second half of 2023



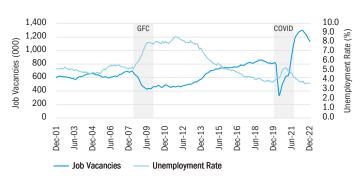
UK economy Where is it heading?

2022 was a tumultuous year for the UK. It started on a promising note: the worst of the Covid-19 pandemic appeared to be behind us, lockdown restrictions were lifted, and government support packages were being withdrawn indicating confidence in the strength of the economic rebound. Investors found a renewed appetite for real estate and there was a significant amount of capital around, some actively being deployed and some waiting to be deployed in a competitive marketplace.

And then geopolitical events took over. The largely unforeseen invasion of Ukraine by Russia at the end of February dampened the positivity, and the good start to 2022 deteriorated as consumer confidence and spending were impacted by the inflationary squeeze on real incomes and multiple hikes in interest rates. This was coupled with political events that have seen three prime ministers and four chancellors in a year and reflects the upheaval the market is having to deal with.

The December 2022 MPC meeting saw interest rates rise a further 50bps to 3.50%. The February meeting also delivered a 50-bps rise taking the base rate to 4.00% with the Bank signalling that

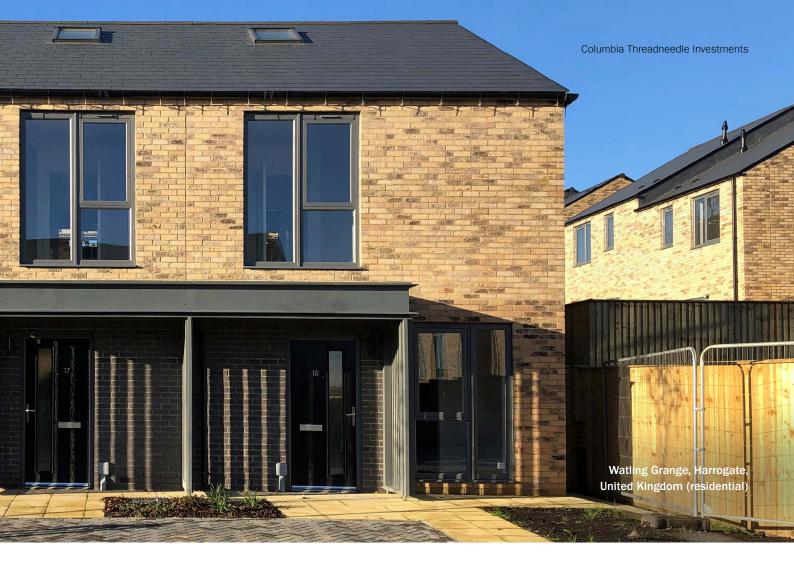
UK job vacancies & unemployment rate



Source: Office for National Statistics, January 2023

rates are close to their peak. Developments in the labour market will be crucial. The current situation is the reverse of the global financial crisis (GFC) when unemployment rose and job vacancies fell. This time the labour market is much more robust, but there are signs that things are beginning to loosen with vacancies starting to decline, albeit slowly, as companies look to cut costs and preserve margins (see chart UK job vacancies & unemployment rate). A loosening in labour market conditions should allow the MPC to pause hikes in early 2023 once the Bank Rate has reached 4.25%.

2023 will be influenced by how quickly inflation drops back from the double digits seen in October and November 2022. But higher



energy prices for firms, plus April's increase in the energy price guarantee, indicates that inflation will prove sticky. So, while we may now be close to the peak in Bank Rate, it's unlikely that rate cuts will be on the table during 2023. Inflation should begin to ease in the second quarter of 2023 as supply bottlenecks begin to ease.

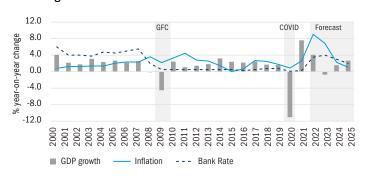
In terms of GDP, remarkably the economy appears to have avoided recession in 2022 with a small 0.1% m/m gain in November, suggesting that the UK economy did not contract in Q4. However, the outlook for the near-term remains rather gloomy. High inflation and the inability of wage growth to keep pace is causing consumers to struggle as household incomes are squeezed. Much of the impact of the rate hikes seen in 2022 have yet to fully feed through to the economy. Plus, April 2023 will deliver a series of tax rises and a scaling back in the support to help consumers pay their energy bills. So, while GDP overall in 2022 was 4.1% it was front-loaded and the

The outlook beyond 2023 should be more stable with some expansion in the economy and more manageable levels of inflation.

slower second half to the year will roll-over into 2023 where the economy is expected to contract by 0.7% overall (see chart UK GDP growth & inflation).

2023 will see a recession, albeit a mild one, with stubbornly high inflation and rising interest rates putting downward pressure on growth. The first half of the year will feel the greater impact of a weakened economy with the recovery becoming more evident in the second half of the year. The outlook beyond 2023 should be more stable with some expansion in the economy and more manageable levels of inflation. The UK economy is expected to expand by 1.6% in 2024.

UK GDP growth & Inflation



Source: Oxford Economics, January 2023

UK real estate

Activity in 2022 and the outlook for 2023

2023 will be one of price discovery. While yields softened and valuations fell in the latter part of last year, progress will be slower than hoped as investors are, by and large, delaying the deployment of capital in order to see where pricing settles (see chart UK Investment volumes). The UK has however, seen a rapid price correction, and this should go some way to helping settle the market, avoiding a lengthy period of capital value recovery that was seen after the Global Financial Crisis and support investor activity from the middle of 2023 onwards, with the positive momentum rolling over into 2024. As was the case in 2022, the focus over the next 12 months will be on preserving income rather than capital growth. While occupier performance will be crucial, so will active asset management with landlords needing to raise their level of engagement with their tenant base – clipping the coupon is a thing of history.

2023 will be a challenging year for real estate as slower economic growth and more expensive capital weighs on investment activity. What is clear is that while the future looks murky, the ultra-low interest rate environment is over and cheap finance has come to an end, which will change market dynamics going forward. As 2023 progresses prices are expected to stabilise, albeit at lower levels as yields soften. More capital is expected to flow into real estate, but it will be more selective and the preference for quality assets and/or those that can be repositioned will continue to be favoured.

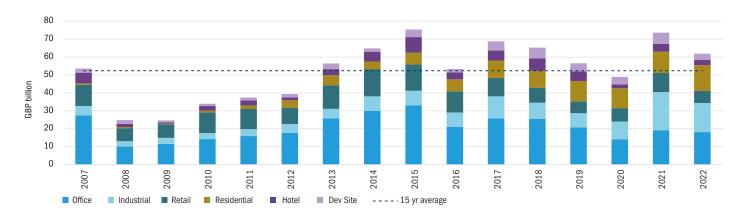
Overall volumes in 2023 will be lower than in 2022 due to the lingering lack of transparency around pricing, which will impact how long deals are taking to close. Levels are not expected

to fall back to those seen after the GFC when historic low volumes were recorded. But investors are far less exposed to debt costs than they were during the GFC. And although there is a degree of uncertainty in the market, if more stability in the political arena rolls over to the economy and the positioning of interest rates in the latter half of 2023, we will see a return to more concrete levels of investment activity. There is renewed interest in the UK market from international investors and opportunistic buyers, which will help with price discovery and offer clarity on the level at which yields will stabilise.

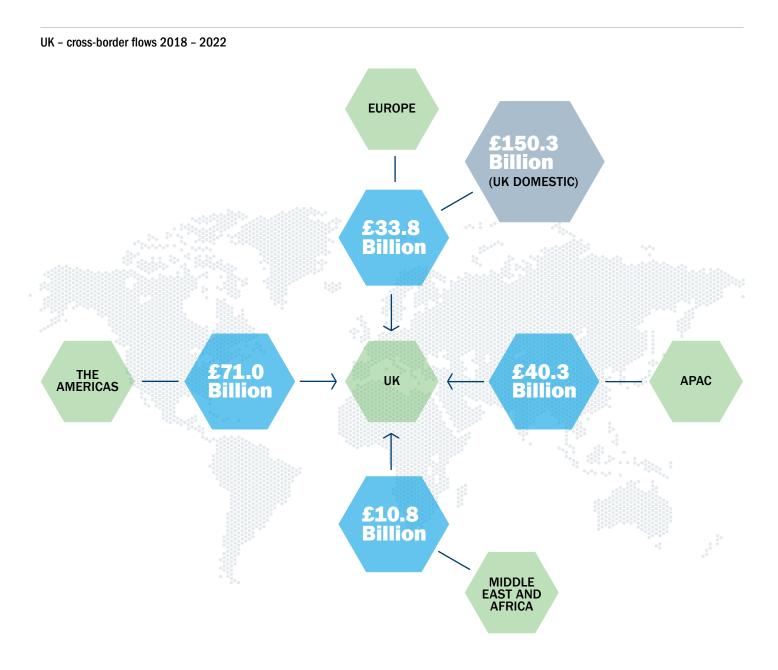
The UK real estate sector continues to attract a range of investors from across the world into what is a mature, broad market with opportunities across the risk spectrum. Over the past five years international capital has accounted for around 50% of all transactions in the UK, including during 2020 when the impact of the pandemic was most severely felt. Global capital, in particular from the United States and Canada, is active and this is not expected to change in 2023. European capital (excluding the UK), whilst only accounting for 10% of deals over the past five years, came from a diverse range of locations with Germany, France, Switzerland, the Netherlands and Spain taking the top five spots.

Singaporean capital is the most acquisitive across Asia Pacific, followed by Hong Kong and South Korea. As 2023 unfolds these will remain, but higher volumes are anticipated from Japan and potentially Malaysia (see chart UK cross-border flows 2018-2022).

UK Investment volumes



Source: Real Capital Analytics, January 2023



Source: Real Capital Analytics, January 2023

As 2023 progresses prices are expected to stabilise, albeit at lower levels as yields soften and with that, more capital is expected to flow into real estate.

UK real estate Our strategy calls

Core/Core +

> Retail warehousing

As the cost-of-living crisis continues to squeeze household incomes, retailers in parks have by and large performed relatively well. Assets in locations with affluent catchments are expected to be more resilient, as well as schemes that are food anchored or underpinned with an alternative end use should retail no longer be viable – be that residential or logistics. As more spend moves online, physical units and schemes have had to work even harder to attract footfall, offering a level of convenience, accessibility and experience that cannot be replicated on the internet. Retail parks can use their large formats to showcase product and establish click-and-collect hubs.

> Big Box Logistics

The fundamentals underpinning the logistics sector are strong, supported by higher levels of onshoring and nearshoring as companies look to reorganise and strengthen their supply chains, and the onward march of e-commerce. Pricing is yet to settle following years of sharpening yields and occupier margins are under pressure, which may dampen the outlook for rental growth over the year. But the likelihood is that demand rebounds into a low-vacancy environment as economic performance improves later this year/in early 2024, driving positive rental growth against limited available stock and a development pipeline that has been held back due to high construction costs.

(Some) Living Sectors

Accommodation is a human necessity, but not all segments under the "Living" umbrella will move with the same speed, nor will they equally capture investor appetite. Build-to-Rent has seen significant investment over the past few years, moving it from an Alternative real estate sector to a mainstream one. This has partly been driven by its ability to provide returns (it has demonstrated its defensive characteristics over past downturns in cycles) and partly by the need to address the critical undersupply of quality, professionally managed units. Affordability is a key issue, and there are opportunities in providing affordable and efficient long-term rental solutions via either family houses or apartments in more central locations.



Value-Add

Offices

As more corporates embed their hybrid working models, quality and location are evidently more strategic decisions that ever before. The one-size-fits-all approach will not work and companies are still looking to find the best solution that fits them. If employees are getting together on a less frequent basis each week it can only make sense to ensure they gather in a hub office rather than a satellite one. So there is a clear preference for centrally located offices close to transport hubs with amenities either in or near the building. These also need to be ESG "readied" as corporates look for efficiency gains and employees look for corporates that meet their changing aspirations as to what a workplace needs to deliver. Such buildings are undersupplied.

Real estate across all sectors presents exciting and compelling opportunities to reposition, repurpose or redevelop.



Reposition for the future

Real estate across all sectors presents exciting and compelling opportunities to reposition, repurpose or redevelop, but also create new "core" style assets. Investment principles regarding future demand with an eye on the end user is as important as ever, especially with some sectors suffering structural demand challenges. There is often price dislocation where the true underlying value is not readily apparent and can be unlocked by specialist teams. Regeneration providing measurable social and environmental enhancements remains a key theme which can provide additional returns as well as helping investors deliver on their ESG ambitions.

Opportunistic

Senior Living

Fundamentals underpinning the sector are strong. The demographic make-up of the population continues to change and age: 19.3% of the population are aged 65 and over, up from 17.4% a decade earlier, and recent forecasts show that one in four of us will be over 65 by 2038. Coupled with a health care system under severe long-term pressure, indicators are strengthening towards a sector which is under supplied, immature and largely unregulated.

> High Street

There will come a time when the entry point for local high street shops has reached a suitable level for capital to sensibly reengage with sector. This injection will help to regenerate and reinvent local areas to provide an attractive community for new residents and retain old residents. An increase in partnerships with municipalities, government agencies and private capital is expected.

Secondary Offices

The rise of flexible offices has promoted corporates to consider and incorporate hybrid models of working as the new-normal offering to employees. While the one-size-fits-all approach will not work and companies continue to explore options to find their best solution, it is clear that as occupiers downsize they will move to higher quality space offering their employees more – be that more quality and/or more amenities. Assets that are non-core will suffer from a fall in occupancy and the inability to push-on rents. Offices that require significant capital expenditure to prevent the assets from slipping into obsolescence to meet the environmental criteria will also be challenging.

Continental Europe

Europe's economic performance exceeded expectations in 2022



Continental Europe economy Where is it heading?

Economic growth for the eurozone in 2022 is 3.5% and above expectations. The bloc has shown remarkable resilience in the face of mounting headwinds with strong consumption behind the better-than-expected 0.2% increase in Q3 GDP which helped the eurozone narrowly avoid a contraction in Q4 2022 with growth of 0.1% q/q. Given the savings ratio is roughly stable, the jump in consumption appears to be the result of labour market strength and fiscal policy support rather than people spending their excess savings. The latest available unemployment data for the eurozone shows that the labour market held up even better than expected in 2022, which in turn is pushing on wage growth.

Lower energy costs means that inflation should begin to decline.

Eurozone inflation fell by more than expected in December on the back of lower energy prices, ending a two-month period of double-digit rates. Sentiment across the bloc is improving on the back of this positive news. The risk of rationing over the remainder of the winter could be a distant memory as Europe seems to have managed to keep gas storage at relatively comfortable levels. However, even if GDP did not fall, the economy is clearly carrying little momentum and is expected to contract in Q1 2023 while inflation remains high at 9.2% (Dec 2022) and markedly above the 2.0% target. The threat of potential swings in energy prices will impact GDP growth over the winter months in particular.

The European Central Bank (ECB) raised its refinancing rate by 50 bps to 3.0% at its February meeting as underlying price pressures remain strong and has signalled its intention to raise rates again in March. Further moves after that will be guided by the trajectory inflation takes and the extent of a slowdown in the European economy. Rates are expected to remain elevated until at least mid-2024. (see chart Eurozone GDP growth & inflation).

Looking ahead, although inflation remains elevated, downward pressure on prices from lower energy costs means it should begin to decline gradually, averaging around 5.0% for 2022. The labour market has showed a remarkable level of resilience and whilst there is evidence that employment growth is likely to have slowed over the last couple of months of 2022, it is still expanding. As such, any increase in the unemployment rate in 2023 will be



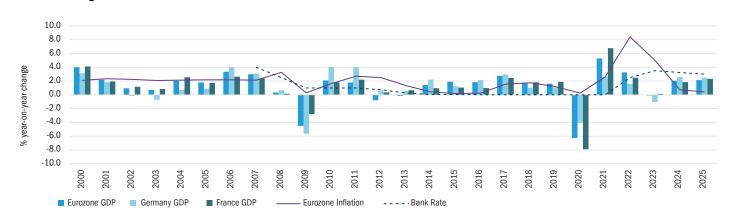
modest at best, rising marginally from the 6.5% record low in November. Even though wages are expected to increase in 2023 they will not keep up with the pace of inflation.

Despite a strong Q2 and a resilient second half of 2022, difficult times lie ahead. The near-term outlook is challenging for households as they face a combination of large declines in real incomes and weaker sentiment. The expectation is that consumer spending follows a similar path to GDP – a contraction

over the next two quarters followed by more positive news and a recovery from mid-2023 strengthening further in 2024.

Consumer spending is expected to recover from mid-2023 and strengthen further in 2024.

Eurozone GDP growth & Inflation



Source: Oxford Economics and European Central Bank, January 2023

Continental Europe real estate

Activity in 2022 and the outlook for 2023

Europe is expected to continue to be a top target for inbound commercial real estate investment in 2023, although volumes will be lower than 2022 (see chart Europe ex UK investment volumes). This reflects not only the slowdown in global trends and the more immediate headwinds facing the sector in terms of higher financing costs and the squeeze on household incomes, but also the longer-term structural changes such as e-commerce and changing consumer behaviours and expectations.

2022 recorded approximately €200 billion of investment in Europe (ex UK) with France and Germany, seen as liquid, safer-haven markets, the largest and most active. The first half of the year was significantly busier than the latter six months with the lull in activity quickly spreading across the continent as the economic slowdown unfolded and debt costs increased. The reduced levels of activity will likely see global private capital take advantage. While currency will be a contributing factor of international capital flows for a period, it won't be the driving factor. There is also a significant amount of dry powder still searching for opportunities, which repricing can now offer.

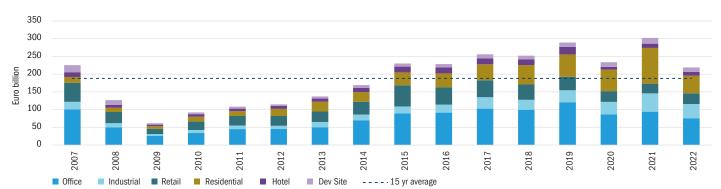
All-property capital values are estimated to have fallen by between 10% and 15% in 2022. Further falls in 2023 are expected, although not as dramatic as the past 12 months and below the 20% falls seen in mid-2009 following the GFC. While owners of real estate are generally not as leveraged as around the GFC, higher interest rates and cost of capital, as well as weaker incomes, could lead to forced sales and further falls in values if pressures continue. Having said that, if the anticipated economic slowdown is shallow and there is only a modest rise in unemployment, occupier demand could hold up better than expected, supporting company income streams and lessening the risk of higher void levels.

Similar to the United Kingdom, where there is demand for real estate, it is largely focusing on the prime end of the market. Rising – albeit selective – interest is expected to follow for secondary assets where there is a repositioning angle to either a change of use or higher ESG credentials, but the entry yield for some still needs to fall further for the financials to stack up.

Across 2022 the office sector was the most popular, accounting for 35% of deals over the year. However, while the sector was the most transacted, its dominance from even a few years ago has fallen and much of the lost ground is not expected to be regained. Instead, the living sector and logistics will increase their respective shares and fill the void as the structural supply-and-demand imbalance will persist and support rental growth, while long-term structural dynamics support the long-term resilience of the sectors.

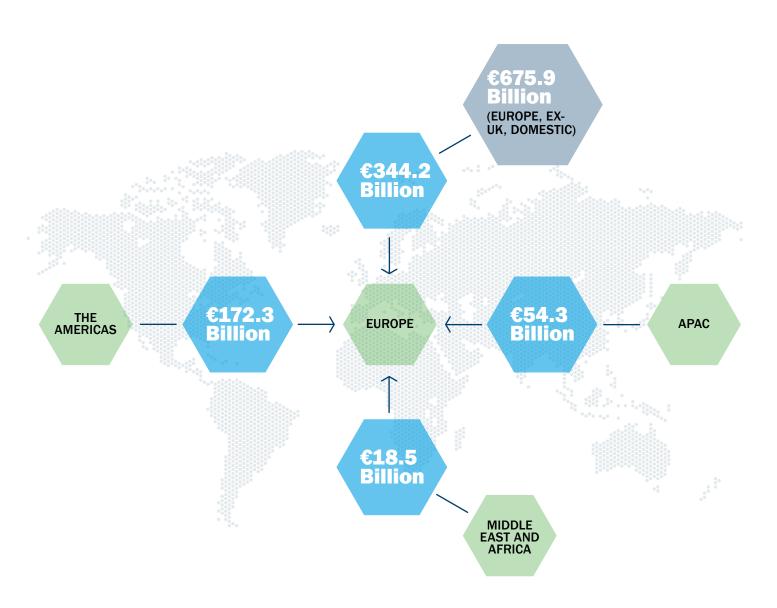
Cross-border capital has averaged around 45% per year over the last five years, with the bulk coming from North America, South Korea and Singapore. European inflows came from a broad range of countries but the top five spots are filled by Germany, the United Kingdom, Sweden, France and Switzerland (see chart Europe ex UK cross-border flows 2018-2022), 2023 could see the rise of domestic transactions, as during periods of uncertainty and volatility some investors focus a larger proportion of their activity internally, playing to their strengths of knowing and understanding local market dynamics. But the key gateway cities of London, Frankfurt, Paris and Berlin will hold their global appeal and remain investable targets for international money, global as opposed to European in particular. Strong second-tier cities are also featuring given the intensifying appetite for residential assets with cities such as Madrid, Vienna, Amsterdam and Hamburg benefitting, for example.

Europe (ex UK) Investment volumes



Source: Real Capital Analytics, January 2023

Europe (ex UK) - cross-border flows 2018 - 2022



Source: Real Capital Analytics, January 2023

There is a significant amount of dry powder still searching for opportunities which repricing can now offer them.

Continental Europe real estate Our strategy calls

Core/Core +

Logistics

The construction of buildings has been challenging, which has resulted in less overall development activity and a moderate level of completions at best, with overall vacancy rates trending below long-term averages. This is supportive of positive rental growth given levels of occupier demand driven by the growth of e-commerce, the shoring up of supply chains and diversification in the sector. The rise of urban logistics is an example of this, serving the everincreasing consumer demand for shorter delivery times. But location decisions must be highly selective and a focus on occupier balance sheets crucial.

Residential

Demand for this undersupplied sector, particularly in urban Tier I and II cities, is set to continue as demographic profile changes support future demand, along with changing mindsets in terms of renting versus owning. With mortgage costs rising, affordability will be increasingly challenging, further boosting sustained demand for the sector. The countercyclical nature of residential is more in focus than ever before, but investors need to be mindful of policy changes that may regulate rents and where the realistic inflationary hedge sits – not all costs can simply be passed on to households that are struggling themselves with rising costs.

> Prime High Streets

While there are undeniable challenges within retail, the sector has already gone through a substantial amount of pain and lessons have been learnt. Low-yielding units will see some further repricing presenting buying opportunities. An increased level of private-public partnership is anticipated in delivering mixed-used developments along popular streets in a bid to diversify the source of footfall, generate flows and create destinations. Prime streets will also benefit from the return of tourists, while the luxury and high-end brand segments are showing more resilience in the face of the squeeze on discretionary spend. Their activity is concentrated on consolidating store networks, focusing on prime, high footfall locations required for brand positioning and strategic purposes. They have also been investing in online platforms to



provide a seamless experience for customers, embracing the opportunity of e-commerce rather than shying away from it – finding the balance between physical and non-physical real estate.

Value-Add

Offices

This sector will see the transformation of lower quality office space in central business districts near transport hubs via active asset management programmes. They will seek to redevelop and/or reposition themselves by delivering ESG-compliant spaces that capture energy cost reductions and reflect the changing needs of occupiers. As such they will have the potential to provide for higher asking rents whilst improving capital value. Regulation to improve EPC ratings has already been issued in some countries with more sure to follow.



Opportunistic

> Senior Living

As populations across Europe continue to age, retirement communities and care homes are expected to become more popular. Institutional investors have been deterred by fragmented ownership, a lack of large-scale operational expertise and an undersupply of suitable, quality schemes. But opportunities are increasing and there are a number of varying products under the umbrella able to deliver returns.

> Student Housing

Quality, purpose-built student accommodation close to universities and amenities is typically undersupplied in many European markets. The sector is in its infancy, is largely privately owned and in a high state of disrepair. This provides opportunity to fill a supply gap in the market and there is a yield premium over traditional commercial real estate sectors.

This scarcity allows developers, operators and capital to join forces to create products that are fit for future needs and changing student requirements, whilst at the same time creating scale that can either be managed or parcelled up and sold on when the time is right. In addition, universities are looking to divest of stock with bigger roles for private sector partners that can deliver the right solutions in terms of accommodation portfolios.

Luxury and high-end high street brand segments are showing more resilience.

US

The US economy carries some momentum into 2023 but the year will not be without its challenges

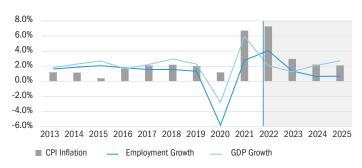


US economy Where is it heading?

The US economy rebounded very rapidly in 2021 and 2022 after one of the most severe – if short – recessions during the Covid-19 pandemic in 2020. However, sustaining the growth against a backdrop of elevated inflation and aggressive monetary policy tightening will be challenging (see chart US GDP, Employment and CPI Inflation). Household finances are relatively healthy, but with weakening employment gains and tighter financial conditions consumer spending will struggle in 2023, especially in the first nine months of the year. Thereafter, inflation expected to decline to around 3.0% by the end of the year will provide a tailwind for the economy.

The US may slip into recession in 2023 but we don't expect to see a steep contraction.

US GDP, Employment and CPI Inflation



Source: Moodys, January 2023

The US economy carries some momentum into 2023 but the year will not be without its challenges. GDP is expected to have expanded in the fourth quarter of 2022, albeit at a slower pace than previous quarters as the Federal Reserve's aggressive interest rate rises impact growth. Consensus is that the US will slip into recession in 2023, probably around the middle of the year. But as with the UK and the eurozone it is not expected to see a steep contraction as was the case after the GFC and overall GDP growth in 2023 could be slightly positive. The housing sector is a key contributor to the slowdown, driven by higher



interest rates and lower sale prices and the subsequent fall in housing starts.

Inflation eased towards the end of 2022 but is still running at historically high levels, edging down in December 2022 for the first time since 2020. The labour market is also tight, especially for skilled labour, and the Fed, as expected, raised interest rates in a bid to tame inflation at the Federal Open Market Committee (FOMC) meeting in February by 25-bps. As 2023 unfolds inflation and supply chain issues should slowly retreat as better alignment with demand will exert less upward pressure on consumer prices.

The mixture of persistently high inflation, aggressive action by the Fed in terms of monetary policy tightening, the effects of slowing global activity and evidence of easing pressure on wages should weigh on both consumer and business confidence. Corporate America, particularly tech firms, appear to be wrestling with slowing top line incomes, lower stock equity prices and headcount above optimal levels. That said, top line incomes are still mostly positive so there is a solid hope that layoffs will be minimal and hiring will restart in less than a year, as it did during the 2001 recession.

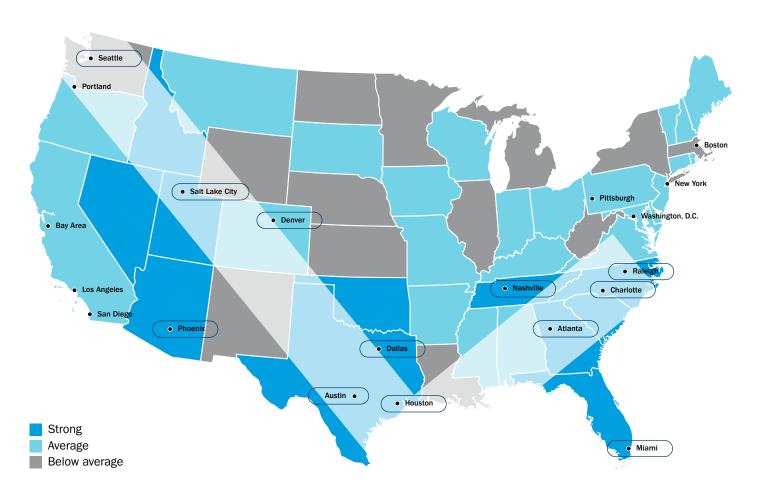
The consumer played its part in supporting the economy over the latter part of 2022, but consumer spending looks set to weaken over the first half of 2023 as the perception of the softening

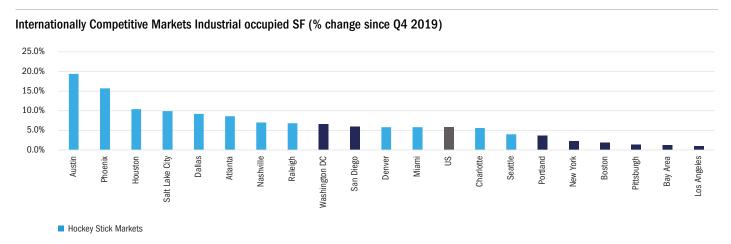
As 2023 unfolds inflation and supply chain issues should slowly retreat.

labour market filters through to consumption, as does slower wage growth. There may be a little buffer if some of the excess savings accrued over the pandemic are spent, supply chain pressures ease quicker than expected and inflation falls with greater speed. This would take the pressure off the Fed to tighten further, but the direction of travel will not dramatically change and the balance is a fine one.

Perhaps the biggest economic change in 2022 was the emergence of onshoring and the moving of manufacturing and supply chains back to the US. Political and trade frictions increased in 2022 and, combined with many firms' interest in de-risking their supply chains, accelerated a nascent trend. The recent growth in workforce (as tracked by positive in-migration) and manufacturing employment in 2021 are consistent with the cities posting strong growth in demand for industrial space since the beginning of the pandemic and these cities and states may be best positioned to benefit from onshoring. In addition to increased demand for industrial space, growth in well-paying industrial jobs should also benefit housing and retail investments.

Strong Industrial Job Growth & Migration (2021): Hockey Stick Markets Dominate





Source: Moodys, CoStar, January 2023

US real estate

Activity in 2022 and the outlook for 2023

2022 saw approximately USD 510 billion exchange hands and despite the slowdown in the second half of the year this number still far exceeds the 15-year annual average of USD 273 billion and was only 8% down on the record breaking 2021, making 2022 the second most active year for investment activity over time. However, beginning in the third quarter of 2022 real assets investment activity plummeted as rising interest rates combined with heightened recession worries and weaker equity markets (especially for tech firms) took hold. A large proportion of deals that concluded had been initiated six to nine months earlier and so it was the last quarter of the year that really felt the impact of the changing economic environment.

To start 2023, many would-be sellers are waiting for economic recovery and hoping for lower interest rates to support real asset values. To date there has been limited evidence of distressed sales although the level will probably rise over the course of the year as some assets come to the market at re-financing rates that are untenable. And while capital is harder to come by, there is availability for the right opportunities for example single-family residential stock, well-located logistics assets and retail that is grocery anchored. Across all opportunities the focus is very much on higher quality product. Overall 2023 trading volumes could be in the region of 10% – 15% lower than 2022 which would still leave them some way above the long-run annual average.

Many institutional investors have also reached target real asset allocations due to lower equity and debt portfolio values, which decrease the denominator upon which percentage allocations are made. Buyers are also recalcitrant, waiting for lower prices and hopefully lower debt rates. As a result, transaction volumes may remain depressed for some time, as they did

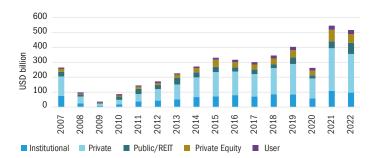
US Investment volumes 600 500 400 200 100 0 100 0 100 0 100 0 100 1

Source: Lionstone Research, CoStar, January 2023

2008-2011, until economic growth and rising occupancies support value growth and buyer confidence. However, as in the GFC era, a lack of liquidity and weak prices may generate a strong investment vintage for real assets as prices soften ahead of economic recovery.

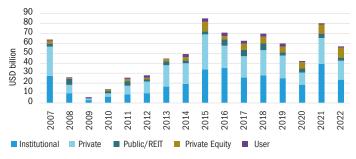
Domestic investors dominate the US real estate market and so a more interesting lens is the make-up of the international buyers in comparison to domestic ones. The most notable difference, leaving aside the absolute volumes is that institutional buyers are the most active in terms of foreign investors accounting for 41% of deals. This compares with 19% for domestic buyers. Private capital was the most active of domestic sources at 50% compared to 33% linked to international capital. Equity players, traditionally around 10% of the market, who are able to deploy capital with speed will also be able to seize on opportunities. Although with a relatively mild recession expected the window of opportunity is likely to be shorter than the nine months after the GFC before pricing began to rise again.

US Investment Volume by Domestic Buyer Type



Source: Lionstone Research, CoStar, January 2023

US Investment Volume by International Buyer Type



Source: Lionstone Research, CoStar, January 2023

US real estate

Our strategy calls

Core/Core + and Value-Add

Single Family Residential

Supply and demand fundamentals for Single Family Rentals (SFR) appear attractive over the 2020s due to the US housing shortage and solid demographic support. The millennials will drive rapid growth in the 30-44-year-old age cohort, a prime driver of SFR demand. While home prices were rising sharply until mid-2022, higher interest rates and fears of a slowing economy are pushing values down in many markets. 2023 may be an attractive vintage in which to acquire SFR as values are decreasing in many markets and may bottom in 2023 or early 2024.

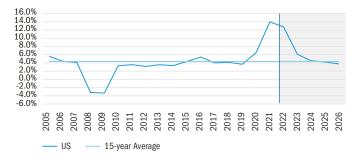
While values appear to be falling, rents are expected to fall less, much the same as in previous economic downturns. If rents remain steady and values fall, investors may have an opportunity to buy SFR at higher yields and lower prices. That said, investor caution is in order. While many metropolitan areas have solid demographic growth to support future values and rents, others have low or even negative working age population trends, which could endanger future demand and rental growth over the investment period.

Many metropolitan areas have solid demographic growth to support future values and rents.

Medical Office

Medical Office Building (MOB) rents and occupancies have outperformed general office occupancies and appear to be well supported for future demand growth given the rapid rise in the elderly US population. As with any real asset investment strategy, demographics need to be combined with careful selection of cities and submarkets to capture stable demand and above average rent growth. Interestingly, cities with a combination of household income growth and above-average in-migration such as Austin, Nashville, Raleigh, and Miami posted exceptionally strong rent growth since 2014.

US single-Family Rental (RevPAR* growth)

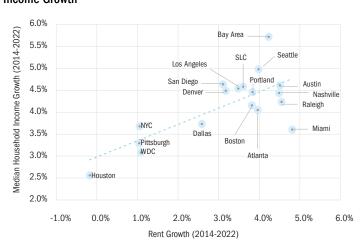


*RevPAF: measure of the health of a market (or sector) that combines two key operating metrics (effective market rents and occupancy) into a single value

Source: Lionstone Research, Green Street, as of January 2023

Demographics need to be combined with careful selection of cities and submarkets.

Medical Office Building Rent Growth vs Median Household Income Growth



Source: Lionstone Research, CoStar, Moody's September 2022



Core +, Mixed-Use Development

Offices

Best in class, newer office buildings are well occupied, enjoying demand growth and may represent an attractive, though perhaps non-consensus, investment in 2023. Conversely, most US office stock is not newer, LEED certified, or part of mixed-use developments and these properties are losing occupancy. Through 2022's third quarter, US office buildings built since 2015 enjoyed 26 million square feet of net absorption. Every other vintage lost demand in the first nine months of the year. In addition to how recently built an office project is, the type of development in which the project is located is important. "Human Scale" office buildings, which are those in mixed-use environments, less than 20 stories tall, 20 years old and 400,000 square feet in size, posted increased occupancies since the pandemic began. These trends appear to support the thesis that tenants are seeking a different experience and better ESG standards than tenants expected pre-pandemic.

Build-to-Core, Value-Add and Opportunistic

Mixed-Use Development

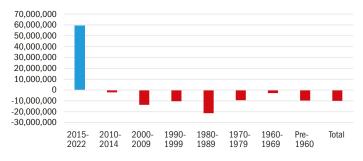
New construction starts across all real assets ground to a halt in late 2022 as higher interest rates and a fear of a recession combined to dry up both debt and equity financing while inflation pushed up construction costs. As a result, delivery of new housing (apartments and single family), office, industrial and other property sectors could be very low in the 2024-2026 period, which may also be when the US is in a recovery period following the recession expected in 2023. This mismatch between economic recovery and available space may represent an opportunity for savvy investors to partner with developers and landowners at attractive pricing in 2023.

Newer office buildings are well occupied, enjoying demand growth.

Office Building Stock by Vintage

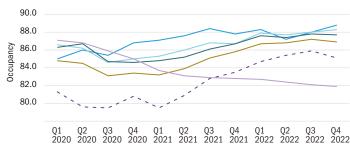
Vintage	2015-2022	2010-2014	2000-2009	1990-1999	1980-1989	1970-1979	Pre 1970	Total
Inventory SF	695,531,207	293,058,569	1,254,751,798	1,030,625,164	2,057,540,172	1,028,406,246	1,823,013,568	8,182,926,724
Share %	8.5%	3.6%	15.3%	12.6%	25.1%	12.6%	22.3%	

US net absorption by vintage (2022 - year to date, sq.ft)



Source: Lionstone Research, CoStar, as at December 2022

Higher occupancies found in location + product thesis



- GREEN Human Scale Mixed-Use in PEZs (new multi-tenant & stabilized)
- Human Scale Mixed-Use in PEZs (new multi-tenant & stabilized)
 - PEZs (new multi-tenant & stabilized)
- IC Markets (new multi-tenant & stabilized)
- - IC Markets (all ages multi-tenant stabilized)
- Outside of PEZs (new multi-tenant & stabilized)

Source: Lionstone Research, CoStar, as at September 2022



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