

IPM

Edition December 2022

Our quarterly **insights** into **private markets**



Market adjusting

Real estate price adjustment to present opportunities

Changing world

Investing in an age of transformation in infrastructure

Strong forces at play

Private credit markets warrant caution and discipline

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Dear readers



Zachary Gauge

Head of Real Estate Research & Strategy
– Europe ex DACH

The third quarter of 2022 was undoubtedly a challenging one for private markets. Spreads between risk-free rates have narrowed or even reversed, leverage costs have soared and the economic outlook has weakened further. In this environment, it is crucial existing portfolios are positioned against some of the headwinds we know are coming next year.

A key theme which comes across in all the private markets sectors we cover across real estate, infrastructure, food & agriculture, private equity and private credit, is that a business' or assets' capacity to pass on inflation to customers and tenants will be a determining factor for performance. We expect niche sectors such as life sciences, cold storage and self-storage real estate and energy and sustainability focused infrastructure, to see the strongest structural drivers of demand – providing the crucial pricing power in setting rents and terms.

And with market uncertainty always comes opportunities for investors who are willing to make a call on pricing before stability returns. As some investors are under pressure to rebalance portfolios, there will be a short window where marketed investment stock exceeds buyer demand creating an attractive entry point for long-term sector conviction calls at attractively repriced levels.

I hope you enjoy the publication, rarely has it been so interesting to work in research!

Best regards



Zac



Fergus Hicks
Real Estate Strategist

“Sharp rises in interest rates around the world are feeding through to real estate yields and cap rates. Buyers and sellers are adjusting price expectations accordingly. Real estate returns have slowed, and transaction activity has fallen as some deals agreed at prices prior to the slowdown have been aborted.”

Returns slowing as rate rises feed through

Central banks around the world continued with aggressive monetary tightening in the third quarter. Large and consecutive rises in policy rates have taken them to levels unthinkable just a year ago and not seen since before the Global Financial Crisis (GFC). Central banks and economists underestimated the intense inflationary pressures that pent-up demand and bottlenecks in the economy would generate emerging from the pandemic. In addition, inflation has been given a significant boost by sharply higher food and energy prices due to the war in Ukraine.

Central banks have indicated that they are not done yet with rate rises. Financial markets expect further increases to come and rates to peak in 2023. Monetary policy typically takes 18-24 months to fully feed through to the economy, making it likely for central banks to face an uncomfortable period when inflation remains high, but they must refrain from further rate rises. This creates the risk that central banks will overtighten policy in an effort to burnish their inflation-fighting credentials, which could push the economy into a deeper recession as a result. Growth prospects have already weakened, and Oxford Economics expects the advanced economies to experience a shallow recession over 4Q22 and 1H23, focused on North America and Europe.

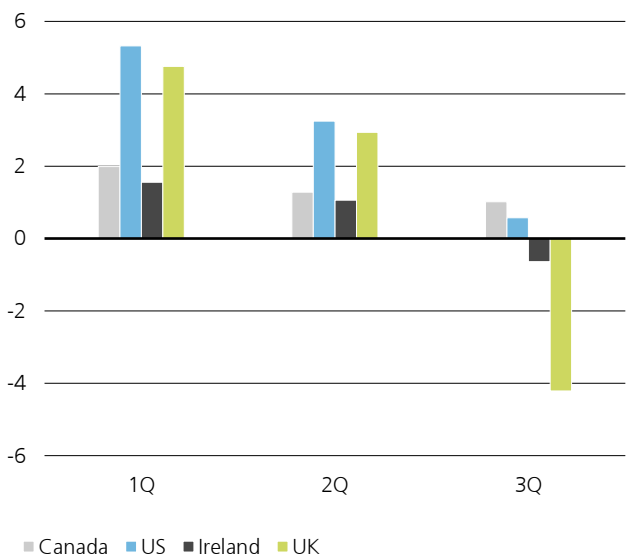
In real estate, occupier markets have held up well so far and in general, rents continued to increase in the third quarter. According to MSCI data, all-property rents in Canada, Ireland and the UK rose by around 1% QoQ. Office and retail rents were flat while industrial rents were stronger, up 2.2% QoQ in the UK for example. The slowdown in the economy is set to feed through to weaker occupier demand from businesses, which will weigh on rental growth. Moreover, it is likely to result in declines in rents in some markets and increases in vacancy rates. Within leases, rents linked to inflation will provide significant uplifts for landlords to counter the current high levels of inflation.

Interest rate rises are feeding through to the real estate market. Of the more than 300 city-sector markets we monitor globally, yields and cap rates rose in 56% of them in 3Q22, the first time they have risen in the majority of markets covered since the GFC. The increases were widespread and yields rose in the majority of markets across the main sectors of office, retail and industrial. In nearly all the remainder markets yields were flat. At the global level, the all-property cap rate was stable at 4.9% in 3Q22 according to data from MSCI. We expect further rises in yields and cap rates as buyers and sellers adjust their price expectations.

The rises in yields resulted in capital value declines and weakening returns in the third quarter. NCREIF data for the US and MSCI data for Canada, Ireland and the UK showed office and retail capital values falling 1-4% QoQ. Capital value growth for industrial in Canada, Ireland and the US slowed, but remained positive. In the UK it was negative, with values dropping a sizeable 8% QoQ. Income offset capital value declines in some markets to leave total returns positive. At the all-property level, total returns remained positive in the US and Canada while they were negative in Ireland and the UK (see Figure 1). UK total returns were -4.2% QoQ. We expect further capital value declines in 4Q22 and moving into 2023.

Real estate market transaction activity slowed for the third consecutive quarter in 3Q22, weighed down by some deals with prices agreed prior to the slowdown being aborted. Buyers and sellers are adjusting price expectations to higher interest rates. According to data from MSCI, global investment volumes fell 22% QoQ in 3Q22 in USD terms after adjusting for seasonal effects. Weaker market activity was focused on the EMEA and Asia Pacific regions, where volumes fell 25% and 26% QoQ respectively in USD terms after adjusting for seasonal effects. The Americas, driven by the US, was slightly more resilient, with volumes down 22% QoQ. Activity was weaker across sectors globally, with volumes down most for retail at 38% QoQ, while office, industrial and residential volumes fell by 21-23%.

Figure 1: 2022 all-property total returns (QoQ %)



Source: MSCI; NCREIF, November 2022. Note: Past performance is not a guarantee for future results.



Economic backdrop weighing on real estate

2022 has been a tumultuous year for the economy and real estate markets. At the start of the year, we expected the economy to build on its initial recovery in 2021 from the COVID-19 pandemic. Oxford Economics and others forecast that the advanced economies would grow by around 4%, before slowing to 2.5% growth in 2023. However, those forecasts have been steadily revised lower, with a knock-on impact on prospects for the real estate market. Latest forecasts from Oxford Economics show growth in the advanced economies of 2.4% in 2022, before slowing to a standstill in 2023, when GDP is expected to fall the first half of the year, before making a recovery in the second half.

The key driver behind the steady deterioration in the economic outlook has been interest rates rising much more rapidly and to levels higher than expected. Across the key global real estate markets, weighted by market size, policy interest rates are now expected to be above 3% by the end of 2023, compared to an expectation at the start of the year below 1%. The sharp upward revision to interest rate forecasts has been due to inflation consistently beating the expectations of most market participants and central banks.

Two factors have been behind the overshoot in inflation. First, a failure to assess the strong inflationary pressures that underlying demand and bottlenecks in the economy would create on emerging from the pandemic, with those pressures boosted by sizeable central bank balance sheet expansion during the pandemic. The second powerful and driving factor has been the exceptional rise in food and energy prices brought on by the war in Ukraine, which has destabilized these markets and turned them on end.

A weaker economy and rising interest rates weigh both on real estate market performance and across risk assets in general. Indeed, listed real estate markets have seen a sharp sell-off and price declines this year. Weaker economic growth ultimately feeds through to occupier demand from businesses for commercial premises, be they offices, retail or industrial and logistics properties. This in turn weighs on open-market rents, which will likely now decline in some markets. However, we do not expect the economy to deteriorate as much as it did during the GFC, rather that it will experience a mild downturn. Along with relatively constrained development activity and supply, this should support rents and cushion them from sharper falls.

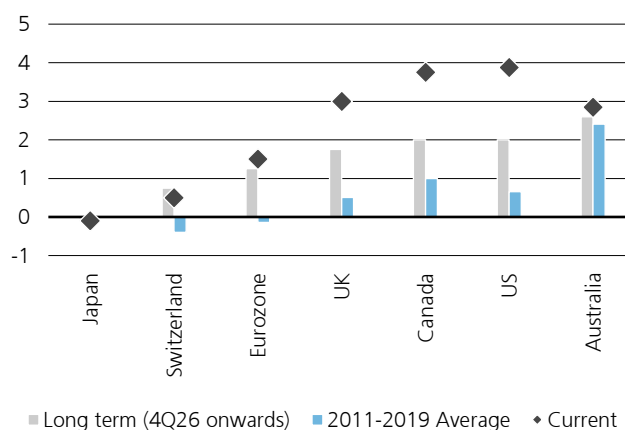
While a weaker economy weighs on occupier markets, higher interest rates are putting upward pressure on yields and cap rates and the market has started its adjustment to them. We are now seeing widespread increases in yields and cap rates across markets and sectors, a process which we expect to

continue into 2023. Against this backdrop we are seeing some falls in real estate market values, which we also expect to continue into 2023. The size of the eventual adjustment will depend upon the path of interest rates and the economy. If inflation were to surprise on the downside, it could allow central banks to cut interest rates sooner than expected, which would be supportive of real estate markets. While a deeper, longer downturn in the economy which saw interest rates remain higher for longer, would likely hit real estate values harder.

A key determinant of real estate market performance in the longer term will be where interest rates settle. Interest rates are notoriously hard to forecast, however, and depend on many factors. Indeed, widespread expectations that interest rates would rise around the middle of the 2010s proved unfounded. Latest forecasts for stabilized central bank policy rates show them at lower than current levels, but generally above those in the post-GFC period (see Figure 2). Some of the trends which presaged the ultra-low rates post-GFC, such as globalization, are now reversing.

For example, US interest rates are forecast to settle at 2%, compared to a post-GFC average of 0.7%. Eurozone interest rates are forecast at 1.5%, compared to -0.1% following the GFC. Australia is the only country where there is not a sizeable difference between the current longer-term rate forecast and those post-GFC. For real estate we expect this year's rate hikes to continue to feed through to some declines in capital values. If interest rates eventually trend back down as the current forecasts suggest, this could provide a boost to real estate.

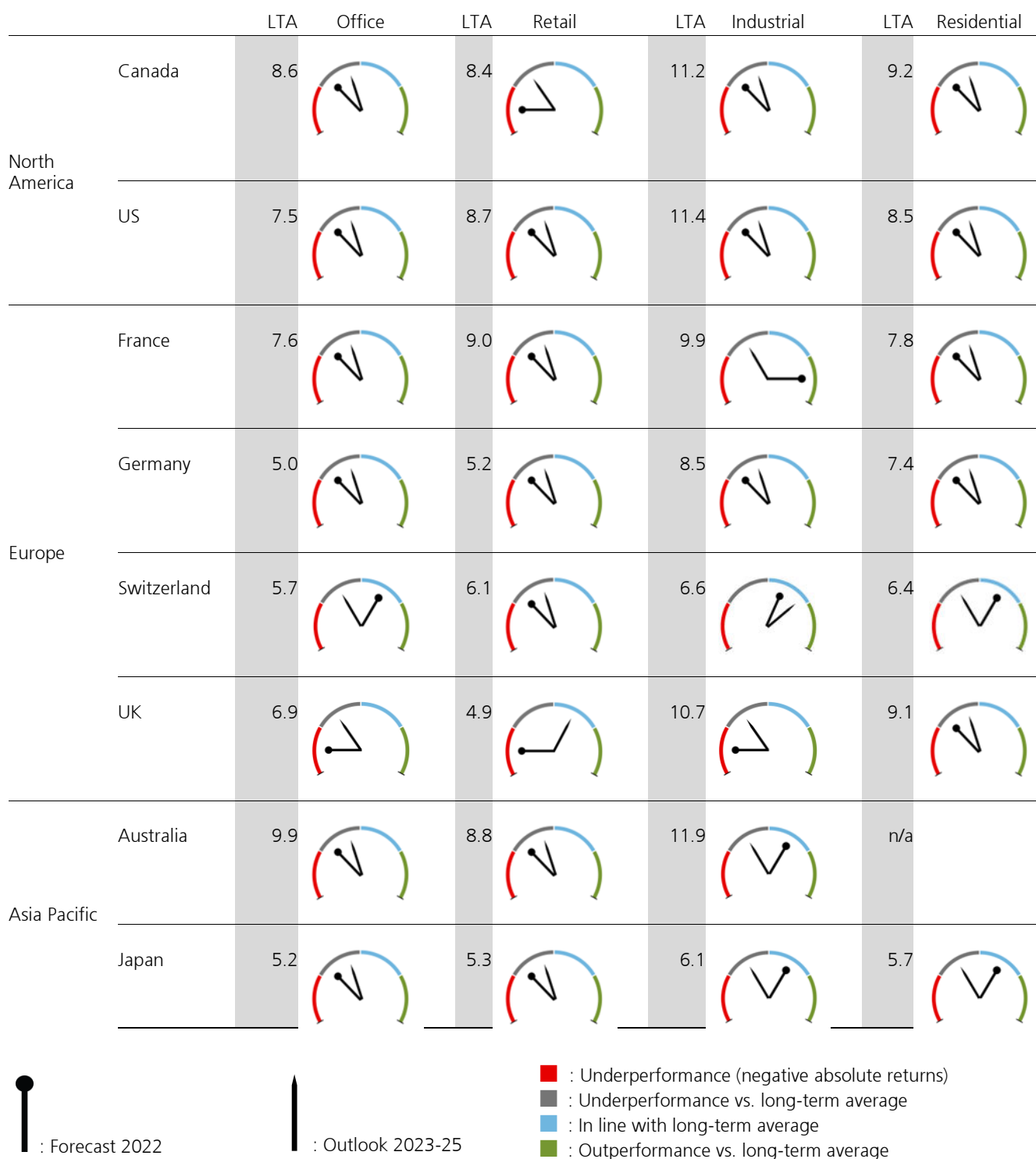
Figure 2: Central bank policy rates (%)



Source: Oxford Economics; Refinitiv Datastream; UBS Asset Management, Real Estate & Private Markets (REPM), November 2022.

Real estate investment performance outlook

2022 forecast and 2023-25 outlook are measured against the country-sector's long-term average total return, with the average +/- 100bps described as "in line with long-term average". The long-term average refers to the period 2002-21. The red underperformance quadrant refers to negative absolute total returns, either in 2022 forecast or the 2023-25 outlook.



Source: Oxford Economics; UBS Asset Management, Real Estate & Private Markets (REPM), November 2022. Note: Abbreviation LTA: long-term average. Expected / past performance is not a guarantee for future results.



Zachary Gauge

Head of Real Estate Research & Strategy – Europe ex DACH

“European property markets reported a widespread outward yield shift in 3Q22, with more anticipated in 4Q22. High debt costs place equity buyers in a strong position as discounted opportunities start to emerge.”

Energy crisis to trigger shallow recession

Economy

The economic outlook for Europe remains extremely challenging. Inflation in both the eurozone and UK has exceeded 10%, resulting in negative real wages across the board and consumer spending being impacted accordingly. Higher borrowing costs are also starting to impact households and businesses. The UK and eurozone are expected to be in a shallow recession by early 2023, with a weak recovery thereafter. Inflation should start coming down next year as base effects come into play and the impact from energy costs becomes deflationary in 1Q24. But core inflation will keep CPI above target in both markets at an annual average of 5.3% in 2023, before dropping to just above 2% in 2024.

The ECB and BoE have continued to tighten monetary policy in response to inflationary pressures and to maintain pace with other global central banks. At the October meeting, the ECB raised the deposit rate by 75 bps to 1.5%, whilst the BoE also hiked by 75 bps at the November meeting to 3%. Further hikes are expected from both central banks, and by spring 2023 the ECB is forecast to hike to a terminal rate of 2.75%, whilst the Bank of England is anticipated to reach 4.5%.

Although further hikes are almost certain, the longer-term path of interest rates is less clear. Forward markets are anticipating a *higher for longer* scenario, with rates hitting ca. 2.75% in the eurozone and ca. 4.25% in the UK in 12

months-time and only moving down marginally over the following years.

UBS Investment Bank has taken a differing view, which follows more conventional economic theory. As the economy slows in 2023 and inflation starts to come down, central banks will loosen monetary policy to stimulate the economy, particularly if unemployment starts to rise. Under their scenario, UK rates are forecast to drop back to 2.5% and eurozone rates to 1.75% by end of 2024. This would provide support for real estate pricing, and could support a recovery in transactional volumes as debt becomes accretive again.

Occupier markets

Despite the headwinds facing the economy, office occupational demand held up relatively well in 3Q22, with total European take-up falling by 5% on the previous quarter but continuing to show a strong recovery on the pandemic-impacted years. Annual take-up levels appear to be stabilizing at around 15% below the levels recorded prior to COVID-19. Aggregate vacancy rates have stabilized around the 7% level, helped by a modest supply of new space coming through to the market (see figure 1). Occupier demand for the newly developed space remains strong, and markets including London, Frankfurt, Hamburg, Munich, Milan and Amsterdam saw prime rental growth in 3Q22. However, we anticipate negative movements for secondary space to emerge over the next 12 months.

Values slowly starting to adjust

Aggregate take-up in logistics markets has fallen back in 2022, but remains very high compared to pre-pandemic levels. Despite the slight slowdown in take-up, vacancy rates have continued to come down with an average rate of just 2.6%. As a result, many markets are still delivering strong prime rental growth. Rental levels for prime retail markets were largely stable in 3Q22. The slowdown in consumer spending will impact the wider retail sector, but prime pitches, particularly in tourist hotspots, saw very strong footfall over the summer and helped to support in-store trading.

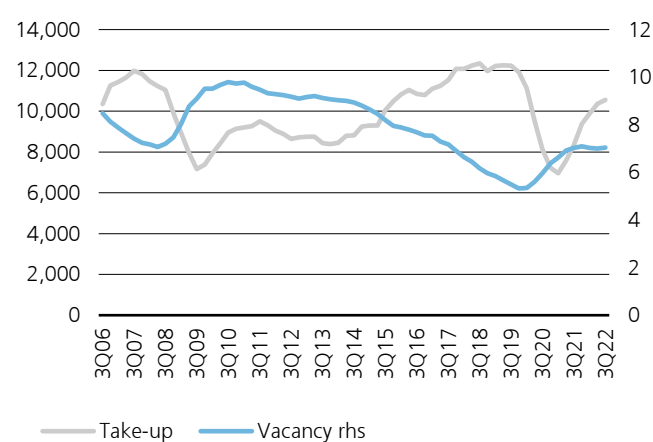
Capital markets

Unsurprisingly, investment volumes in Europe for 3Q22 fell sharply, dropping by 37% on 3Q21 and recording the lowest level since 2014 (excluding the pandemic-impacted 2020). Rising interest rates have pushed all-in debt costs above the income yield for most real estate assets – effectively excluding a vast pool of buyers from the market. The lack of price discovery and lagging valuations have made it riskier for potential equity-only investors to transact. In addition, there is still some resistance among sellers in continental Europe to accept the level of repricing which would be necessary to make real estate comparatively attractive again vs. other asset classes. In the UK, the market is moving quicker. There are more motivated sellers (which is helping price discovery), and we anticipate this will attract more interest to the market in 2023 as value-seeking investors become more active.

In terms of the official prime yield movements, logistics has seen the sharpest in 3Q22, with all main markets reporting at least 25bps of outward yield shift, whilst UK markets have seen 100bps or more. Most prime office markets have also seen outward yield shift, although these are generally smaller movements of between 10-50bps.

There was less movement in retail markets, although we believe this is more due to the lack of market evidence than any particular vote of investor confidence in the sector.

Figure 1: European office vacancy rate and take-up
(‘000 sqm, %)



Source: JLL, 3Q22.

Our strategy in the current market climate would be to focus on the sectors having the strongest outlook on the rental growth side, rather than those with the highest yield spread to fixed income yields. In a period of high inflation and weak economic growth, the income component and the ability of a landlord to drive rental growth, will be critical to performance. So we believe there may be buying opportunities in sectors such as logistics where yields are now moving out quickly. Yields could reach levels, combined with the strong outlook for rental growth, that could start to look attractive again even in a multi-asset portfolio.



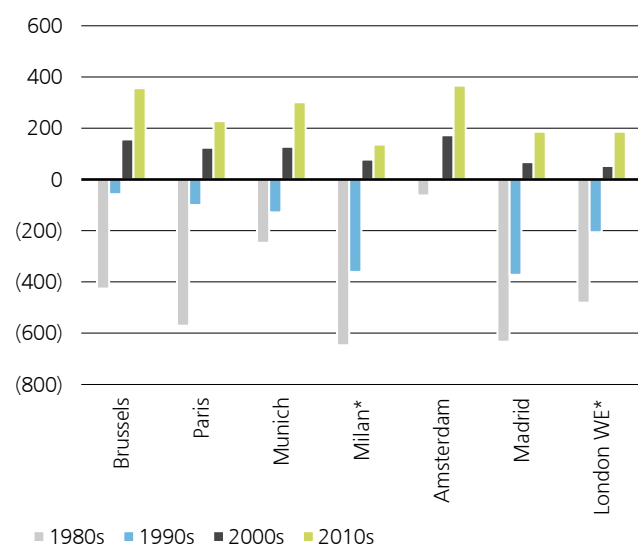
Where should property sit in relation to bonds?

The challenge of estimating a risk premium

The spread between property yields and government bond yields has gone from being very attractive at the start of 2022, to distinctively unattractive on the same measure just nine months later. As property yields started to adjust to the new interest rate environment in 3Q22, one of the most frequently asked questions has been: "What should a fair risk premium for property be?"

Unfortunately, the answer is far from straightforward. Taking a backward-looking approach, different decades were shaped by clearly defining characteristics which had a significant impact on where the property risk premium landed. Throughout the 1980s and 1990s, it was far more common for property yields to have a negative spread to government bond yields than a positive one (see Figure 2). During these decades, property was seen as a true inflation hedge, whilst the asset class was more insular from wider financial markets and less resilient on leverage. This in effect helped real estate set its own level of pricing and softened the correlation with liquid asset classes.

Figure 2: Average spread between prime office yield and 10-year government bond (bps)



Source: PMA, November 2022. Note: *Milan data starts 1985 and London WE 1982.

But as European real estate institutionalized in the 2000s and leverage played a greater role in acquisitions, the relative pricing of real estate versus other asset classes became more relevant. Property yields started to show risk-premiums to government bonds which ranged between 50-200bps on average, although in the run up to the GFC once again dipped into negative territory. The ultra-loose monetary policy that marked the post-GFC era, sent the spreads up to record levels and was the single most important factor in the property bull-run of the 2010s. But with interest rates heading back above what would be considered long-term neutral levels, how far do property yields need to move out to become attractive again on a relative pricing basis? The issue with answering this question in relation to straight bond yields, is that the income from property is variable, either derived from market rental growth movements or some form of indexation.

There is a stronger correlation between property yields and real (CPI indexed) bond yields, reflecting the ability of property to, in theory at least, capture some inflation within the income component. And this explains why, while the spreads between core office yields and straight government bonds have moved in by an average of 240bps between 1Q-3Q22, the gap between inflation linked bonds has narrowed by 175bps.

Nonetheless, this is a considerable margin, given that most prime office yields have only moved out by 25-50bps so far. But the distortion of the ultra-loose monetary policy of the 2010s means that coming into this downturn, spreads between property yields and bond yields were artificially high and have a reasonable cushion to absorb some of the impact. Property yields undoubtedly have further to move out. But if the outlook for rental growth on an asset is positive, then the outward movement doesn't have to be too dramatic before on an IRR basis property can again look attractive against other investment asset classes. And as monetary policy tightening may be reversed in the next 12-18 months to support economies through a slowdown, there is upside potential of property yield compression from the elevated levels they are reaching.



Wai-Fai Kok

Head of Real Estate Research & Strategy – Asia Pacific

“APAC economic growth accelerated in 3Q22 as China rebounded. Growth should slow, but the region is expected to hold up better as the US and Europe enter recession in 2023. Wide bid-ask spreads remained a hurdle for deal closings. Cap rates loosened slightly and will move out further in the next 1-2 quarters. Japan still offers attractive opportunities.”

Leading the pack

APAC GDP growth accelerated to 4.8% YoY in 3Q22, largely driven by the rebound of China (+4%). Even without its boost, the regional performance was stable as the tightened monetary condition takes its time to feed through. Weaker external demand and increased energy import prices eroded trade balance, but the impact was mitigated by robust private consumptions from post-pandemic spending.

Inflation continued to climb in 3Q22 and was up 0.6 percentage points QoQ to 5.5%. However, the momentum is slowing and there are signs of peaking. Energy prices have retreated and supply chain bottlenecks are easing. In the US, inflation has moderated for four consecutive months from 9.1% in June to 7.7% in October. The Fed has hinted at the possibility of a slower rate hike, albeit at a higher terminal rate. In APAC, Singapore, India, Taiwan, Malaysia, Indonesia and Thailand saw lower inflation in October. Australia started to slow its pace of rate hike from 50bps to 25bps even before any domestic data showing a cooldown. Its 275bps increase since May is significant, but the full effect has yet to be felt. Reserve Bank of Australia (RBA) deems a smaller rate hike to be prudent as it engineers a soft-landing. Overall, there is a small hope that the finishing line of interest rate upcycle is finally within sight.

Nevertheless, a victory against inflation, while positive, is not without costs. A cyclical downturn ensues. UBS Investment Bank expects a recession in the US and Europe in 2023. Global inflation should peak in 4Q22 to an average 8.6% for the year before moderating to 5.6% in 2023. Correspondingly, interest rates are forecast to top out in 1H23 with potential rate cuts in 2H23, as the narratives shift to reinvigorating the economies.

For APAC, growth could slow, but it appears likely that the region may avoid a recession. There are two main reasons backing this up. Firstly, the inflation war in this part of the world has been less intense. Secondly, the reopening of China will also lift aggregate demand. In fact, China and Hong Kong are the only countries expected to deliver a growth acceleration in this region. This said, this growth engine is not expected to recover to its pre-pandemic glory due to weaknesses in external demand and its property sector.

We believe a peaking of inflation and interest rates would also spell good news for Japan's diverging monetary policy. This should allow the Bank of Japan (BoJ) to maintain its stance at least for the near term. APAC currencies, which have depreciated 5-22% YTD, should also be poised for a reversal.

Wide bid-ask led to market lull

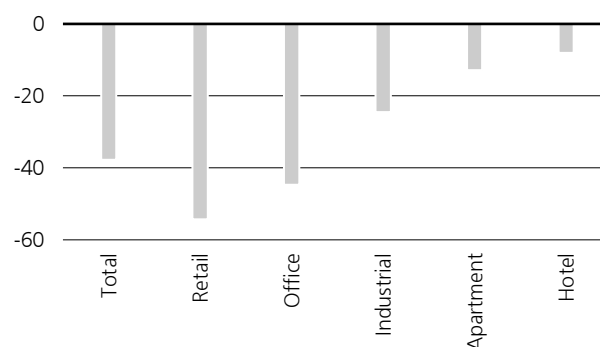
APAC leasing activity in 3Q22 slowed down expectedly on the back of macro uncertainties. According to CBRE, office net absorption softened 11% QoQ, while logistics normalized from its pandemic high. Retail fared better thanks to reopening tailwinds boosting retail sales. We expect the overall leasing sentiment to weaken further in the coming quarters as the economy enters a period of slower growth.

In contrast to the occupier market, the swings in the 3Q22 investment volumes were more drastic. Elevated funding costs remained the sticking point, and deals are hardly accretive at current pricing. The allocation cap driven by falling equities and bond prices added to the pressure and held back capital deployment in real estate.

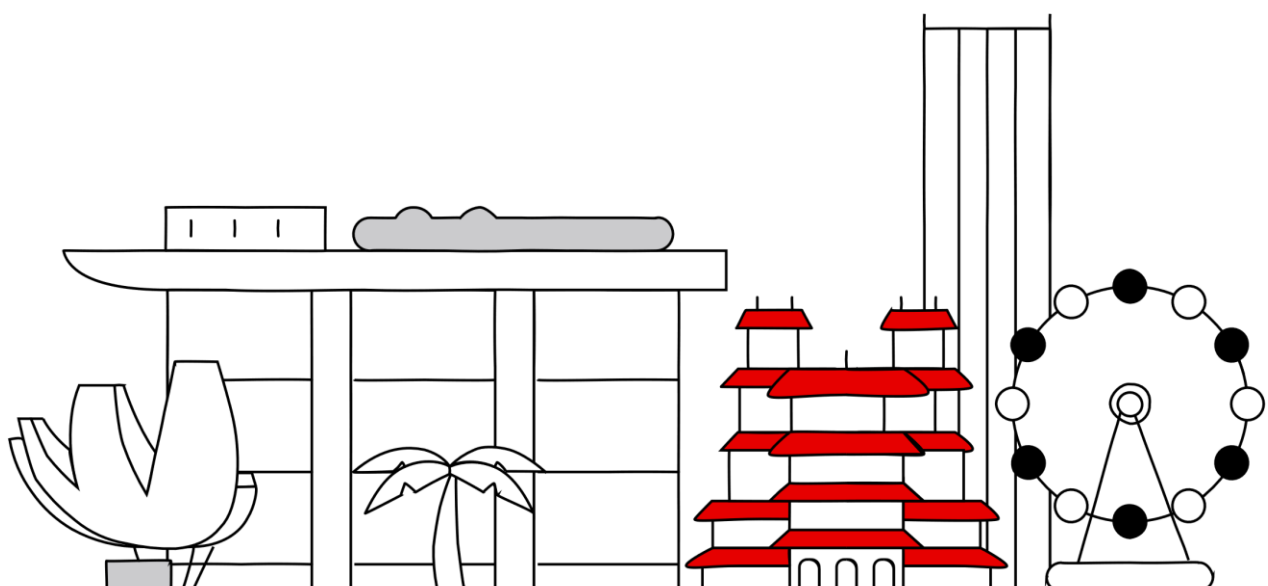
According to MSCI, transactions fell 38% YoY to USD 32.6 billion (see Figure 1), below the pandemic trough and the lowest since 2016. By sector, office and retail were the worst performers with volumes -45% and -54%, while hotels and apartments were the best at -8% and -13%. Industrial / logistics volume was surprisingly resilient at -24%, though it was distorted by a large deal by JD.com in China. Excluding that, logistics volume declined more than half YoY. By country, most markets recorded a decline except for Singapore (+30%) and India (+79%). Japan was not spared and fell 61% (-45% in JPY terms) despite its conducive interest rate environment, as REITs were relatively quiet during the quarter. Larger transactions including Otemachi Place (USD 2.8 billion) will be finalized in 4Q22 and hence not included in 3Q22 numbers.

Pricing is starting to soften in APAC though not to the extent of the US and Europe. Real Capital Analytics data showed a minor uptick in cap rates in 3Q22, especially in Australia and South Korea. This is not a surprise as their monetary tightening has been more aggressive. MSCI data also showed an expansion of valuation cap rates in 3Q22 for Australia logistics. That said, the movements so far have been marginal and less than 50bps. More is likely to come. Based on a CBRE survey in October, 58% of respondents expect cap rates to move out by 25-100bps in the next six months. Australia seems most vulnerable with indicative expectations vs. March 2022 pointing to a 25-75bps expansion, while Japan cap rates are expected to remain stable.

Figure 1: Asia Pacific transaction volume YoY change (3Q22, %)



Source: MSCI, November 2022.



Japan could provide shelter

Elevated funding costs and negative yield spread continue to dominate key debates for real estate. Bond yields have retraced from the October high but remained sensitive to the Fed's comments. Predicting near-term movement may be fruitless, but the general consensus is for 2023-24 yields to settle at lower levels than current, but higher than 2019. At such levels, cap rates will need to adjust higher from present for the returns profile to normalize. Potential sellers have been able to hold out so far, but this could change as refinancing bites into returns. Disposals could also be motivated by fund expiries, withdrawals, portfolio reallocation and potential gearing breach from write-downs.

Without a liquidity shock, the adjustment process could take time. In that environment, dry powder is likely to find shelter in any accretive deals available. In our view, Japan appears as a clear winner given its large yield spread. Indeed, there has been increasing interests of late driven by this favorable relativity. Hailing from Singapore, Keppel REIT made its first Japan acquisition in October and targets to increase exposure to bolster its inorganic growth. Hong Kong-based Gaw Capital articulated its intention to deploy up to USD 4 billion in the country over the next two years, while the US-based KKR is also attracted by the cheap JPY.

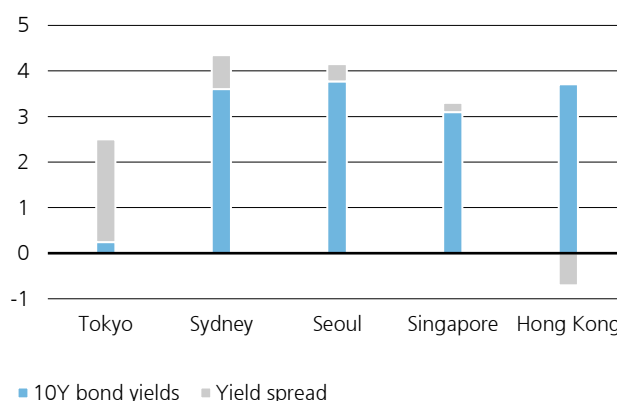
Japan holding its own

Japan is the only market where pricing expectations are still holding firm. In September, a huge office transaction was done at an eye-catching 2% cap rate, implying further cap rate compression (see Figure 2). Our conversations with brokers also suggest potential yield tightening for multifamily assets. It is indeed an outlier market in the current environment driven by the BoJ's continued loose monetary policy. The question often asked and hotly debated is about its sustainability and whether Japan will eventually fall in line with the rest of the world.

BoJ and the Japanese government showed a united front to defend the policy as the economy is still considered weak. BoJ reiterated its stance in September and October, but was met with intense market pressure as the US continued to raise rates. Japanese government bonds were sold down and the Japanese yen depreciated sharply to a 32-year low of 151 against the USD. The Ministry of Finance intervened in the FX market for the first time since 1998 in support of the currency and indirectly BoJ's stance. So far, USD 19.7 billion and USD 42.8 billion were spent in September and October to keep the currency stable.

We expect the policy to stay on hold at least until the end of the current BoJ governor's term in April 2023. While the consensus expectations are for policy continuity for the whole of 2023, there are some observers expecting some form of policy tweaks such as adjustments to the yield curve control. We think the possibility will hinge on the US Fed's action, which has been the chief driver of JPY weakness. Indeed, its recent softening of tone has resulted in JPY/USD strengthening to 139 in early-November. Barring a hawkish guidance in the coming months, we see little urgency for BoJ to pivot. Inflation is a risk but seems unlikely to surprise expectations for now. As the US economy cools in 2023, we see a potential for further JPY appreciation. In real estate, multifamily is our preferred sector while we also expect office to attract capital despite its weaker outlook.

Figure 2: APAC office yield spreads in 3Q22 (%)



Source: PMA; Reuters. Note: bond yields as of 22 November 2022.

Increasing interests in niche sectors

Given limited opportunities in traditional sectors in the current environment, some investors are allocating capital into niche sectors. In particular, life sciences and self-storage saw increased appetite. APAC is jumping on the bandwagon in an attempt to replicate western success in these areas. For example, CBC Group-APG JV recently made its third investment in China for their USD 1.5 billion life sciences venture. Lendlease-PGGM JV's which has a USD 780 million strategy targets APAC innovation and life sciences properties. For self-storage, CapitaLand Investment recently won a USD 810 million mandate from APG and the JV has acquired Extra Space Asia as its seed investment.

These sectors are at their nascent stage in APAC and have a positive structural story. Investors may be able to generate alpha through early-mover advantage if executed well.



"Japanese investors are still hungry for global real estate. Higher hedging costs might reduce their appetite, but global exposure brings many benefits."

Fergus Hicks
Real Estate Strategist

Global real estate through a Japanese lens

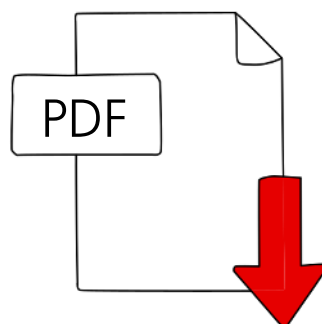
BoJ has bucked the trend of all the other major central banks around the world and kept interest rates on hold. Moreover, markets and economists expect Japanese rates to remain on hold indefinitely. This means that Japanese investors can expect higher hedging costs on their investments into global real estate, making domestic real estate look more attractive. Although diminished, there are still compelling reasons for Japanese investors to go global with their real estate investments. Moreover, a disorderly unwind of the zero-interest rate policy poses a risk to the domestic market.

Despite the increased hedging cost, going global in real estate investments can still bring significant benefits to Japanese investors and complement any existing domestic holdings they may have. For a start, going global can be a prudent choice for Japanese investors in terms of risk management. History shows that any market can be hit by an unexpected shock which predominantly affects it alone. For example, Brexit in the UK, the *zero-COVID-19 policy* in China and any number of natural disasters which have befallen different countries over time. A disorderly unwinding of the BoJ zero-interest rate policy is currently a risk for the domestic market.

Going global also allows investors to take advantage of differences in market cycles and tactically allocate capital to those markets which present the most attractive opportunities at any point in time. A global portfolio can be adjusted to tilt towards those markets and sectors which are expected to outperform and offer the best opportunities. Ultimately this should lead to higher returns for investors and an improved risk-return trade-off.

The large, global market can also present niche and emerging investment opportunities to Japanese investors which are unavailable or inaccessible at home, or not at the same scale as in other global markets. Life sciences and lab space real estate is a good example of a niche and growing real estate sector which emerged in the US, driven by growth in pharmaceuticals and medical research. By contrast, in Japan, the sector does not exist in any significant scale.

In the medium term, hedging costs should also fall back. Although Japanese interest rates are expected to remain on hold, those in other markets are expected to peak in 2023 before falling back as economies slow and inflation eases. By 2025, global interest rates are forecast to be trending towards long-term neutral levels which, on the basis of Oxford Economics forecasts, mean that hedging costs for Japanese investors should ease back below 200bps p.a.



To download the full report

**Kurt Edwards**

Head of Real Estate Research & Strategy – US

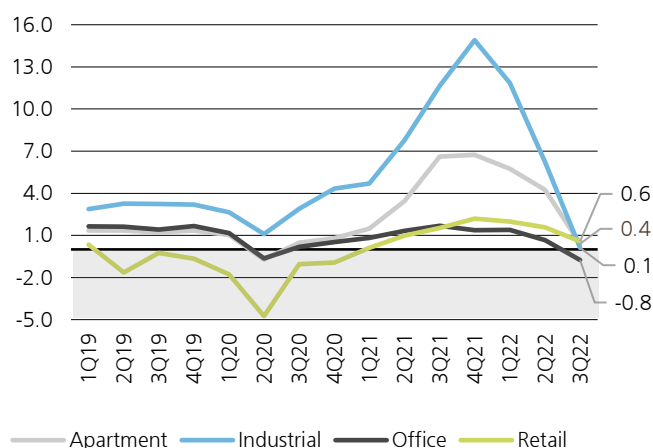
“We expect disinflationary pressures to take hold and the focus of the wider investment community to shift towards unemployment. In this scenario, the durability of income in real estate will become key.”

Gravitational pull of higher rates

Private real estate pricing and transaction volume are feeling the impact of higher cost of capital and concerns about weaker economic fundamentals. According to the NCREIF Property Index, appreciation for 3Q22 slowed dramatically from the beginning of the year (see Figure 1). The apartment and industrial sectors depreciated by 0.41% and 0.57%, respectively, compared to the lofty appreciation of 4.88% and 11.09% in 1Q22. Retail and office depreciated by 0.58% and 1.79%, respectively, in 3Q22. Transaction volume decreased by 21% YoY and bid-ask spreads are widening. We expect further pricing corrections to be widespread across the sectors and regions in 2023.

As cited in our [last outlook](#), financing a real estate asset continues to be difficult and more expensive. Rates on conventional secured loans rose 90bps between July and November 2022, to 6.0%. Higher rates have widened the negative leverage situation where the cost of debt is above income yields. Investors in liquid markets have reacted, pushing public REIT share prices lower, which partially implies cap rate expansion at the property level. Private real estate typically trails large movements in implied cap rates by three-to-four quarters, but impact will vary by sector depending on the persistency of demand growth.

For example, supply constrained warehouse markets in port-related metros have 1% or less availability and have lease rollover opportunities where in-place rents are 10% to 20% below market.

Figure 1: Property sector total quarterly returns

Source: NFI-ODCE Performance Attribution, 3Q22 Preliminary Property Detail Report. Note: Past performance is not a guarantee for future results.

Relying on income

Figure 2: October US real restate total return forecasts

Total return (%)	2019	2020	2021	2022 forecast	3-year forecast
Apartment	5.5	1.8	19.9	5.9	5.2
Industrial	13.4	11.8	43.3	8.3	6.5
Office	6.6	1.6	6.1	1.8	4.0
Retail	1.9	(7.5)	4.2	3.9	4.9

Source: Oxford Economics Forecasts, as of October 2022. Total return: NCREIF as of September 2022. Data shows unlevered NCREIF Property Index total returns. Expected / past performance is not a guarantee for future results.

Apartment

Momentum slowed in the apartment sector, but market fundamentals were stable in 3Q22. The apartment sector delivered an annual total unlevered return of 18.2% in the year ending 3Q22 – a slight dip from last quarter's 42-year record (see Figure 2). Capital return slowed during the quarter to 0.3%, indicating that elevated interest rates are weighing on appraisal-based property values. Negative net absorption drove occupancy rates down by 80bps over the quarter and 90bps over the year.

Despite negative absorption, occupancy hovered near record highs and apartment rents continued to rise in 3Q22 (+10.4% YoY). Transaction volume was reduced in 3Q22, down 19.9% from a quarter ago, and 16.4% from a year ago. We expect a moderation in returns from record-setting levels as elevated interest rates weigh on capital returns.

Industrial

Industrial market fundamentals remained solid during the quarter amid a slowing macroeconomic environment. The industrial sector posted strong annual total unlevered returns of 34.6% in 3Q22 – a moderation from the past two quarters, but still an impressive performance. Capital returns were flat during the quarter, as high borrowing costs and muted transaction activity dragged values. Supply outpaced demand for the first time since 3Q20, as absorption slowed from the prior quarter while the pace of new deliveries picked up (see Figure 3). Availability ticked up by 10bps over the quarter but remained 110bps below 3Q21. Transaction volumes were down 12.5% from a quarter ago and 21.0% from a year ago. We anticipate continued outperformance of the industrial sector over the next three years, albeit at less robust rates.

Office

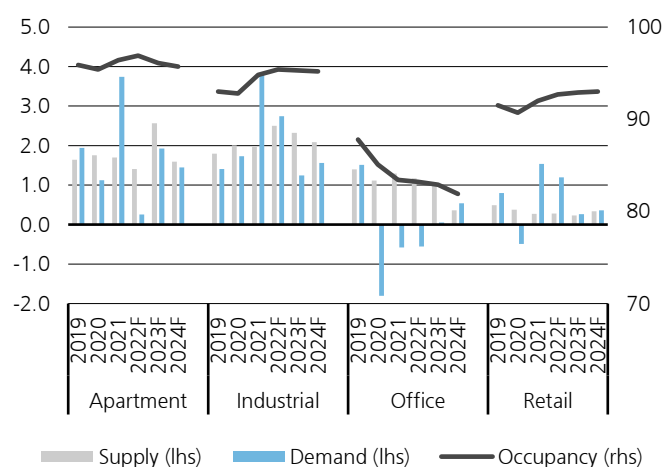
The office sector remains challenged by work-from-home trends, capital markets, and a cooling in the labor market. Total annual unlevered returns for the sector decelerated to 3.3% in 3Q22, as income returns held steady while negative capital returns accelerated. Increasing sublease inventory, coupled with weak demand, drove occupancy rates down 30bps during the quarter to 82.9%. The pace of 3Q22 office transactions was 6.1% below 2Q22 levels and 33.2% below 3Q21 volumes. Although the office sector faces multiple headwinds, we expect demand for high-quality office buildings to persist, given tenants are increasingly seeking to improve their office space while reducing their footprint. Our outlook supports the below long-term average return forecast over the next three years.

Retail

Retail demand held steady during 3Q22 while the pace of supply continued to shrink. Occupancy rose by 10bps over the quarter, and 90bps over the year to 92.9%. Transaction volumes slowed in 3Q22, down 30.1% from a quarter ago, but up 3.2% from last year's pandemic-driven decline. Total unlevered returns moderated to an annual return of 6.4% in 3Q22, as capital returns fell 0.8% during the quarter. We expect solid retail performance over the next three years as the sector continues to rebound from pandemic disruptions.

Figure 3: Sector fundamentals

(% completion rate vs occupancy rate)



Source: CBRE-EA, as of September 2022, Apartment Occupancy is Real Page as of September 2022. Note: Completion and absorption rates shown are the total supply delivered and absorbed within the year as a percentage of inventory. Past performance is not a guarantee for future results.

Normalizing back to pre-pandemic trends

Self-storage

Self-storage fundamentals remain healthy amid a seasonality-driven deceleration. Occupancy rates fell by 188bps YoY to ~94%, as move-in rates decelerated while move-out rates accelerated to a pace that is more in line with general seasonality trends. Despite the slowdown, occupancy rates remain above the sector's long-term average of 92%, and same-store NOI growth continues to achieve double-digit growth. Among self-storage REITS, same-store NOI grew at an equal weighted-average of 15.9% in 3Q22, marking the sixth consecutive quarter of double-digit growth for CubeSmart, Extra Space and Public Storage. We expect self-storage to remain resilient during the current economic environment, but for robust NOI growth expectations to soften.

Cold storage

Cold storage occupancy rates exceeded pre-pandemic levels for the first time in 3Q22. Americold, a global cold storage REIT that holds 87% of its inventory in North America, reported a 260bps QoQ and 440bps YoY increase in economic occupancy to 78.7%. The company reported strong operating results amid elevated inflation, supply-chain disruptions, declining food commodity inventory levels and labor shortages. YTD, same-store-NOI grew 4.4%, which is partly attributable to tenants absorbing additional operating costs incurred from inflation. Near-term fundamentals continue to beat expectations and the long-term outlook for the sector remains strong as increasing online grocery consumption drives demand for temperature-controlled spaces.

Senior housing

Senior housing occupancy rates rose for the fifth consecutive quarter in 3Q22. Robust demand, coupled with limited inventory growth, drove occupancy rates in primary markets up by 100bps to 82.2%. While occupancy rates are 430bps above the pandemic-driven trough in 2Q21, they are still 480bps below pre-pandemic levels. Boosted by strong occupancy, rental rates accelerated by 4.4% over the trailing year. Increasing construction costs and a slowdown in loan issuances should favor further recovery in sector fundamentals as supply remains muted over the near term.

Life sciences

Life sciences normalized back to its pre-pandemic pace. Venture capital (VC) funding fell by 29% QoQ in 3Q22 – in line with pre-pandemic levels, as increasing concerns about the near-term economic outlook weighed on investors' appetite. However, public funding from the National Institute of Health (NIH) accelerated, partially offsetting the current slowdown in the private sector. Vacancy rates inched up by 30bps over the quarter to 5.3% in 3Q22, driven by robust new deliveries. Asking rents continued to rise even amid a slight softening in market fundamentals.



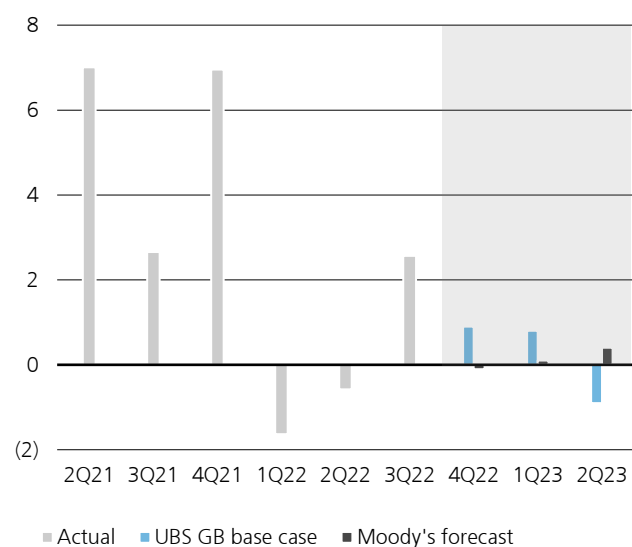
Playing limbo

Real GDP growth came in stronger than expected at a 2.6% annualized rate in 3Q22 (see Figure 4). The solid growth was primarily propelled by trade amid a sharp pullback from residential investment. Trade contributed 2.8% to the headline figure, which implies that the remaining components of the economy shrank slightly. Consumer spending, which accounts for 70% of GDP, has been resilient, but is expected to slow given weakening growth in real incomes.

Households are spending through savings at a faster rate and credit card balances are rising. Consumer sentiment is at a record low and large goods sales, which is a leading indicator of sales in other segments, are declining. October payrolls increased by 261,000, but the unemployment rate, calculated from a different survey, increased by 20bps over the month to 3.7%. The hawkish stance by the Fed has spurred concerns in future business investment and may introduce more downside risks.

UBS Global Bank expects the current economic momentum to wane in the coming months and an economic contraction, marking the beginning of a recession, to start in 1H23. The recession is expected to be milder than the 1991 recession but with the same duration, contracting by ~1% and lasting for 8 months. The unemployment rate is expected to increase to approximately 5% by the end of 2024 with a reverse in the Fed's restrictive policy.

Figure 4: Real GDP quarterly annualized forecast (%)



Source: Actual Moody's Analytics; UBS Global Bank forecast as of 8 November 2022. Note: Shaded area indicates forecast data.

Given UBS Global Bank's forecast, we expect disinflationary pressures to take hold and change the investment community's focus from CPI to unemployment. In this scenario, the durability of income in real estate will become key, rather than the more recent focus on shorter lease duration. Investors should continue to focus strategies on defensive positioning while economic uncertainties persist. This can include marginal movements around strategy targets, i.e. less leverage, and lower amount of value-add activities. Being defensive does not mean that there are limited opportunities in the market. In fact, there may be attractive opportunities to dollar-average into sectors with general repricing that also exhibit strong demand forecasts over the next three-to-five years.



“How on this warming earth could a real asset investor not consider physical risk when determining which markets to invest in?”

Olivia Muir

Head of ESG – Real Estate & Private Markets

Real estate forecasting and the environment: a story

For decades, asset level forecasting and modeling has indirectly considered ESG items. Expected opex and capex in particular, have long been important components of an asset's projected cashflows, and have clearly been implicitly influenced by a building and its location's sustainability characteristics.

However, at a market or national level, forecasts historically have focused on economic inputs such as inflation, population growth or GDP growth. But with extreme weather becoming an increasing risk, also including environmental inputs in market-level forecasting exercises is proving to be necessary.

How can we estimate and include a market or country's environmental outlook in forecasts in a consistent and quantitatively accurate way? The growth of tools that numerically score locations according to their physical risk could be an important input into macroeconomic and real estate forecasts going forward. There is also a timeframe challenge; economic forecasts are less accurate the further out they go and thus economic modeling tends to focus on the near term (1-5 years), while most environmental tools consider longer timeframes, to 2030 or 2050 usually.

Ignoring this environmental-economic link will likely lead to costly repercussions. How on this warming earth could a real asset investor not consider physical risk when determining which markets to invest in? According to Munich Re, natural disasters caused losses of around USD 280 billion in 2021, with less than half insured (USD 120 billion).

Picture this: a long-term property investor is advised to allocate to Miami in 2020-21, a hot and growing market based on economic expectations by a trusted forecaster (who, as it happens, is not considering physical risk in their MSA modeling). The investor accordingly buys in downtown Miami, suffers floods twice in four years and, unsurprisingly, incurs sharp hikes in insurance premiums over time. Refinancing comes around and lenders are wary given the building's location and flooding history, with debt being secured from a thin pool of lenders. The next refinancing might not be successful.

Rising insurance costs, unforeseen capex related to repairing damage and preparing for future water invasions, along with physical-risk-conscious lenders cause this 8% IRR expected at acquisition asset to become loss-making. An investment decision made based on economic forecasts for Miami to outperform other real estate markets, but which failed to consider the city's physical risks.

Other cities such as Tokyo, Mumbai, New York and London are also at severe risk of rising sea levels. Assets are exposed to more physical risks affecting their value, and should be considered in economic and real estate market forecasts.

So shouldn't long term investors in these (and other) markets, that will be exposed to physical risk, be factoring this in when considering future performance of that market or country?



Declan O'Brien

Head of Infrastructure Research & Strategy

“Investors can no longer count on cheap credit to boost investment returns. Looking ahead, more reflection and rigor are needed in their investment and asset management strategies to deliver positive outcomes.”

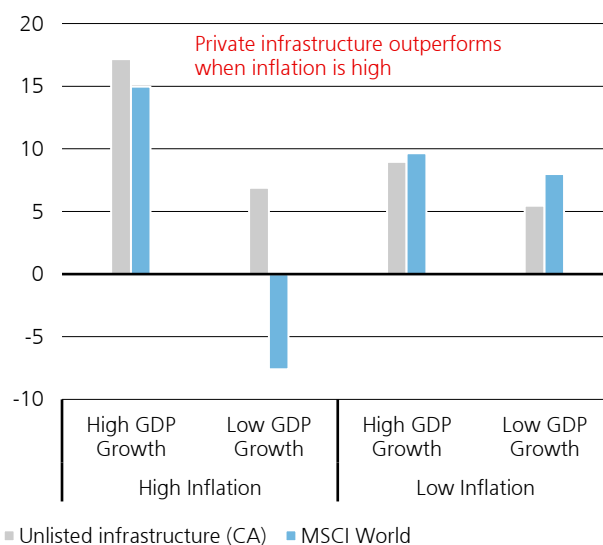
Paving the way for 2023 (and possibly beyond)

Private infrastructure has performed relatively well in 2022. Compared to other asset classes, infrastructure’s defensive nature has provided investors with a safe haven during uncertain times.

Inflation – one of this year’s main actors, has further highlighted the resiliency of private infrastructure, which benefits from its strong pricing power and its ability to pass higher costs to customers. Performance data from 2005-2021 shows private infrastructure outperforming private markets in times of above-average inflation, especially when combined with low GDP growth (see Figure 1).

2022 has also been a year of record fundraising for private infrastructure with dry power now standing at USD 330 billion, according to Preqin. The number of funds declined significantly, implying a high concentration of mega funds. However, the current macro conditions and geopolitical scenario have worsened. High inflation has pushed central banks to become more aggressive, resulting in 10-year government bonds yields increasing by 200-300bps YTD across major economies. The impact on the infrastructure industry, which is relatively highly levered, is still uncertain. Investors will need to be more cautious and think more strategically in the years to come. Below, we’ve summarized 7 lessons we have learned in 2022 and can apply for 2023.

Figure 1: Private infrastructure performance under different GDP/CPI scenarios 2005-2021 (%)



Sources: Cambridge Associates; Bloomberg; MSCI; OECD, April 2022.
Note: Data based on quarterly YoY data; unlisted infrastructure based on Cambridge Associates data; GDP and CPI data based on OECD countries; threshold for high vs. low GDP and CPI are both ~2% (based on median quarterly data of observation period). Past performance is not a guarantee for future results.

Lesson 1: Fundraising may be tougher

In 2023, we could see tougher conditions for fundraising. Infrastructure cash flows may remain resilient, and valuations may stay stable since there is little change in discount rates or earnings, but opportunity cost is still an issue.

When an investor can buy a 10-year US Treasury Note and get a 4% yield, a super-core strategy with limited inflation protection that generates a (hypothetical) 6% net return would appear less compelling. A higher risk/higher return strategy, or one with a strong inflation pass-through, would appear more attractive based on real returns. In addition, the weakness of public markets is making institutional investors' allocation to real assets higher, simply based on the denominator effect (meaning that the public markets' share of investors' portfolios has decreased by more than the private markets' share, therefore increasing the latter's relative portfolio size).

We can assume this year's record fundraising to stem from decisions made prior to the current market turmoil (usually asset allocations plan are made towards year-end). But with LPs already pushing against (or exceeding) their infrastructure allocation targets, we can expect a tougher environment going forward.

Lesson 2: Beware of valuation complacency

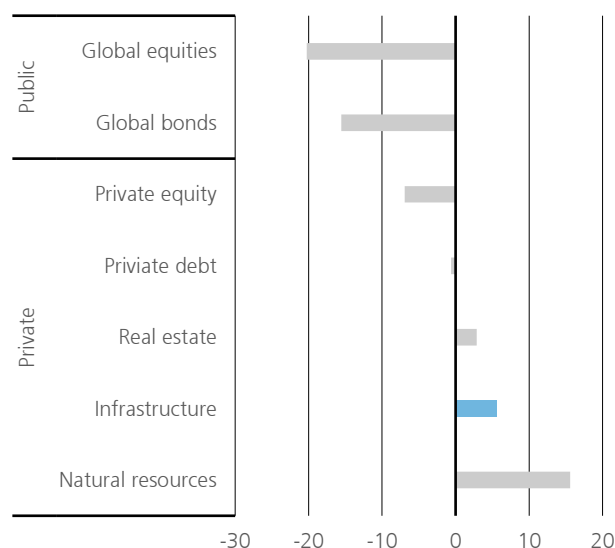
Strong private markets performance in 2022 can potentially lead to complacency (see Figure 2). Currently, high interest rates have removed the previous advantages enjoyed during the cheap credit era. In our view, this will likely increase the gap between good and bad performers.

Infrastructure assets generating strong inflation-adjusted cash flows will still perform well under discounted cash flow valuations. However, investments relying on a rich exit multiple or high terminal value are more at risk, especially if valuation multiples are tied to public market comparable, which have significantly derated.

Uncertainties around financing also adds pressure to valuations. In theory, infrastructure with strong pricing power can pass on higher financing costs. But in the near term, assets could still face a liquidity crunch or refinancing risk. Growth platforms could be hit if their growth isn't as fast as planned due to restricted financing for new projects.

Lastly, fundraising will have a big impact on valuations. If industry fundraising disappoints as we discussed, the dry powder for private infrastructure will rapidly shrink, and valuations will inevitably fall. Very few investors are currently considering this risk.

Figure 2: 1H22 performance by asset class (%)



Source: Burgiss; Bloomberg, October 2022. Note: Private market data from Burgiss; Global equities based on MSCI World; Global Bonds based on Bloomberg Global Bonds Index. Past performance is not a guarantee for future results.

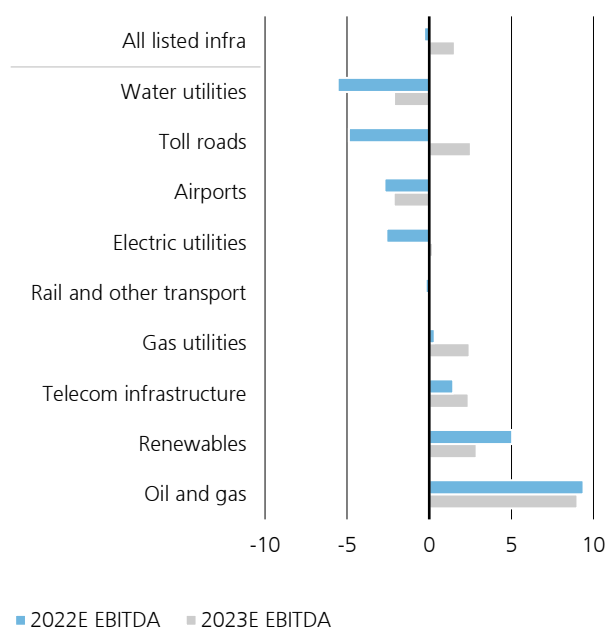
Lesson 3: Go back to fundamentals

Infrastructure fundamentals have performed relatively well in 2022. However, changes in listed infrastructure EBITDA estimates are leading to a divergence in earnings outlooks, even if overall earnings estimates have not changed considerably (see Figure 3). We believe that this will also happen in private infrastructure.

The negative economic outlook requires investors to be thoughtful about investments. A good starting point is to consider the basic business fundamentals (i.e. businesses moat, pricing power, ability to pass higher costs to customers, demand destruction scenario, etc.).

Investors need to stress test investments through a deep analysis of the current macro-economic environment (and scenarios arising from the interaction of its components, such as low/high inflation, strong/weak GDP growth). A shallow but long-lasting recession is also an underrated downside scenario, as it could force investors to take larger write-downs if the cash flow outlook deteriorates over a longer period, which greatly impacts valuations.

Figure 3: YTD change in EBITDA estimates for listed infrastructure (EBITDA, %)



Source: Bloomberg, November 2022.

Lesson 4: The evolving definition of infrastructure

Investors are already getting accustomed to the changing definition of infrastructure investments. Their *traditional* components (long asset lives, monopolistic or oligopolistic behavior, high margins, and contracted cash flows) shouldn't be perceived as immutable.

Secular tailwinds behind sectors such as renewables and telecom have allowed investors to relax some of the traditional definitions of infrastructure (e.g. less near-term cash flows for higher growth), as these investments still check many of the other boxes (e.g. high margins, essential services, oligopolistic).

However, even businesses in *attractive* industries could have varying performances. For example, some infrastructure funds are targeting asset-light services businesses that generate low margins. Although they may still be good businesses that operate in growing industries, their services natures are more sensitive to economic downturns. Secular growth businesses also face higher valuation risks under prolonged economic weakness, especially those that generate little cash flows now and rely too much on long term growth. The de-rating of tech stocks in public markets is a warning sign of this.

Investors therefore face a dilemma: should they invest in secular growth that is riskier in the current environment, or should they invest in less risky core assets with strong cash flows that offer relatively unattractive real returns. The answer depends on the specific deal, and basic business fundamentals will likely be the deciding factor, as discussed in Lesson 2.

Lesson 5: Be a proactive asset manager

The evolution of infrastructure business models is requiring investors to be more proactive in managing their assets. Gone are the days of acquiring an investment, and assuming that it will generate cash flows non-stop from the beginning until the end of asset life.

For example, many clean energy and telecom infrastructure investments are now platforms, which means investors are not just acquiring a portfolio of operational assets. They are also acquiring management teams that will monetize a pipeline of growth projects.

Investors need to ensure that they hire the right people to execute these growth strategies, have appropriate incentive programs in place, the right organizational structures, and potentially recruit industry experts to provide more hands-on guidance internally.

Finally, climate change is a threat we can no longer ignore, which brought physical risks for assets (such as heat waves, floods, droughts etc.). Managers need to be equipped for those risks and adopt measures accordingly.

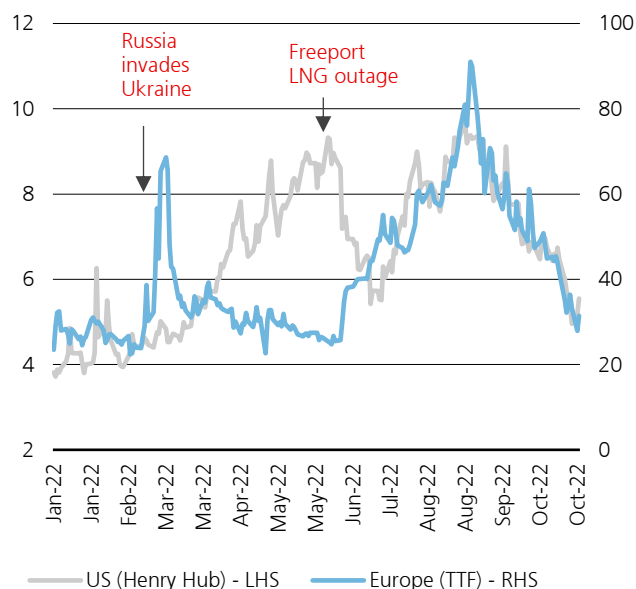
Lesson 6: Be prepared for volatility from gas globalization

The global energy crisis has contributed to nearly half of the European inflation in 2022, versus 20% in the US. While European economies can't sustain high energy prices and are heading into a recession, the US, which is resource-rich, can use its situation as advantage. For example, the US could accelerate the expansion of liquefied natural gas (LNG) capacity.

However, the secondary effect of the expansion of LNG is that natural gas (and even electricity prices) will become more globalized (see Figure 4). For example, in June 2022, the Freeport LNG terminal in the US had to shut down after an explosion – the immediate reaction was a 20% decline in US natural gas prices, and a 40% increase in European prices in the subsequent week.

Since natural gas prices usually set the marginal price of power in most markets, even global electricity prices could become more interconnected with each other. In addition, the acceleration in renewable energy adoption will further increase power price volatility due to the intermittent nature of these resources, which will add to price volatility everywhere. Investors will need to have a more global outlook for energy markets, expect stronger revenue correlations across geographies, be more aware of events around the world, and prepare for greater price volatility.

Figure 4: Natural gas prices (USD/MMBtu)



Source: Bloomberg, October 2022.

Lesson 7: Politics matter

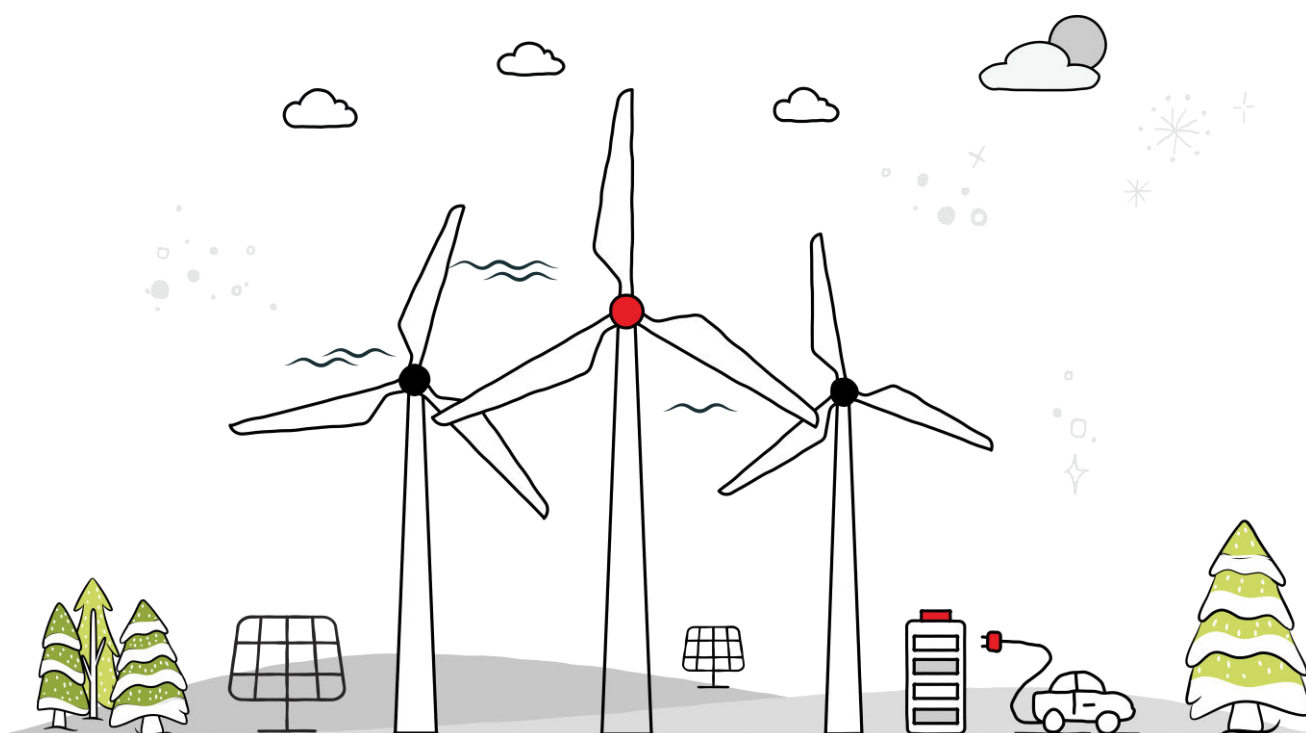
The delicate macro-economic environment has led to a surge in populist government policies and intervention (such as cap on energy prices, windfall taxes, new regulations and even nationalization) as shown in Figure 4. And while some of these measures may be necessary due to extreme conditions, they do represent a precedent for future government intervention, and potentially raise the long-term risk premium.

Investors need to be aware of changing policies, regulations, and governmental action, even in previously investor-friendly jurisdictions. At the same time, they also need to interpret the urgencies of public opinion and the regulatory developments. Investors should maintain a conservative approach around policies and scrutinize the strength of their legal contracts (and the stability of judicial systems), to ensure their investments are protected in scenarios of market distress.



Infrastructure outlook for 2023

To download the full report





“The increasingly complex energy transition investment landscape means investors must adapt to rising competition, new technologies, and changing policies.”

Alex Leung

Infrastructure Analyst, Research & Strategy

Energy transition investing

How are institutional investors defining transition investments – renewables (wind and solar), battery energy storage systems (BESS) and others?

The Inflation Reduction Act in the US and the global energy crisis have led to an acceleration in the roll out of clean energy technologies such as hydrogen, renewable natural gas, carbon capture, utilization & storage (CCUS) – which can be added to your list on top of renewables and energy storage. But overall, there is no set definition on what is considered an energy transition investment, and it is sometimes up to an investor’s own interpretation. Some would argue that natural gas is a transition fuel that is needed as a bridge towards 100% decarbonization, while the sustainability of nuclear energy is also another hot topic that has seen divided opinions.

Obviously, investors can follow frameworks and regulations such as the EU Taxonomy and Sustainable Finance Disclosure Regulation (SFDR), which would give more precise answers on what is considered sustainable. But generally speaking, anything that helps the world decarbonize can probably be considered an energy transition investment, depending on who you ask.

Where is capital flowing? Any notable trends?

According to the International Energy Agency (IEA), global capital has been flowing away from traditional fossil fuels into clean energy for at least five years. This isn’t only a function of sustainability and green initiatives, but is also due to overinvestment in fossil fuels and shale before 2015, which has led to some disappointment in the past.

For example, Deloitte estimated in 2020 that the US shale industry has written down USD 450 billion in invested capital since 2010, while generating USD 300 billion in negative cash flows. Since 2016, global clean energy investments have exceeded USD 1 trillion per annum according to the IEA, while investments in fossil fuels have been USD 900 billion or lower. This divergence has become even more apparent in recent years. The IEA forecasts that clean energy investments in 2022 will be almost USD 1.4 trillion, versus around USD 800 billion for fossil fuels.

How are these energy transition strategies evolving?

How do institutions view those investment opportunities in the near, mid and longer term?

There have been several key changes in the past few years. First, energy transition strategies have shifted away from plain vanilla renewable energy projects with power purchase agreements (PPAs), to more merchant exposure, which means investors must now perform more rigorous forecasts on energy markets.

In addition, investments have moved away from operational projects to broader renewable energy platforms, where investors are betting on a management teams that can drive growth from a pipeline of future projects. Investors must make sure they have the right people in place, scrutinize the track record of the individuals, and ensure that appropriate incentives are in place to align the management team with investor goals.

Finally, strategies are also embracing newer technologies such as energy storage and others that I have mentioned (RNG, hydrogen etc.), as there is increased conviction that these investments will further de-risk and become more mainstream in the long term, especially with the policy tailwinds. The trick is identifying when to enter these new markets as an infrastructure investor. At what point does the increased technology or development risk make the investment too risky? I think this depends on each investor's own strategy and risk tolerance.

What are the biggest challenges and risks in the transition energy market?

Given all the hype in energy transition, the biggest challenge is probably competition. This could be asset-specific where potential overcapacity could cannibalize projects economics, or it could be deal-specific where you need to pay a high premium to close a transaction due to the large number of bidders. Luckily the market is growing so fast that it should be able to absorb all the different players, especially when we are talking about trillions of dollars of investments that are needed in just a few years.

Other challenges that have become more apparent now are supply chain issues and tighter financing markets. Despite the policy tailwinds, project execution is getting more complicated because of these factors, which will likely persist a bit longer.

Finally, government policies are still a risk despite overwhelming positive tailwinds at a high level. For example, there are still uncertainties around the actual mechanics of various tax credits and subsidies. It will take time for some of these issues to get ironed out, and even in the future, there could be further adjustments and changes based on legal rulings or government decrees, so investors will need to be vigilant.

How is the transition sector being impacted by the Russia-Ukraine war and focus on energy security?

There's a certain level of pragmatism that governments have embraced around energy security – for example, the IRA is relatively supportive of fossil fuels with the restart of federal oil and gas drilling auctions, while in Europe, natural gas and nuclear are both included in the EU's taxonomy for sustainable activities.

The big question is: Would high commodity prices in the near term actually accelerate the energy transition in the long term, as clean energy becomes more competitive vs. fossil fuels? If anything, I think governments around the world are scrambling to find alternative energy resources, and that includes newer energy transition technologies.

The US Inflation Reduction Act has provided a strong tailwind for the transition energy market. Are there any specific provisions that are especially noteworthy in influencing decision-making related to transition investments?

I think the most important aspects of the IRA is the policy visibility that it brings. In the past, renewable tax credits were often extended unpredictably on a year-to-year basis. Now, tax credits have been extended for a minimum of 10 years, which helps developers, utilities, equipment manufacturers and investors in project planning and development.

Another important aspect of the IRA is the strengthening of the domestic clean energy supply chain, which has become increasingly important especially with the renewable energy project delays that we have seen in recent years. This makes the IRA as much industrial policy as it is energy policy.

Finally, the IRA looks to streamline the monetization of clean energy tax credits by allowing them to be transferred (i.e. sold) to a third party, or via simple direct-pay mechanisms. There are still lots of uncertainties around how these will actually work, as we are awaiting further guidance from the government, while markets still need to further evolve based on these clarifications.

Directionally, all the policy changes are positive. But investors may need to be patient to fully realize the potential benefits of the IRA.

Any other issues impacting institutional investor strategies related to energy transition?

Some of the lessons learned in the past that have shaped investment strategies include the rapid maturation of new technologies, the impact of geopolitical risks, and the compression of returns due to competition.

Overall, due to the positive track record from the rollout of renewable energy, investors have increased their risk appetite even for newer technologies. They often express this optimism by assuming similar learning curves, market penetration rates and cost reductions experienced by wind and solar. However, not all technologies are created equal, so being able to identify which one is going to be as scalable as wind or solar would be key.

It is important for managers to stay agile and adaptable in order to take advantage of new opportunities and maximize returns, but they must also have realistic expectations.



James Pilkington
Multi-Managers Private Equity Portfolio Manager

“Private equity so far is holding up in the face of uncertain markets, and we see sponsors and private equity-backed companies making positive adjustments to remain resilient in the current economic environment.”

Adjusting to today’s market

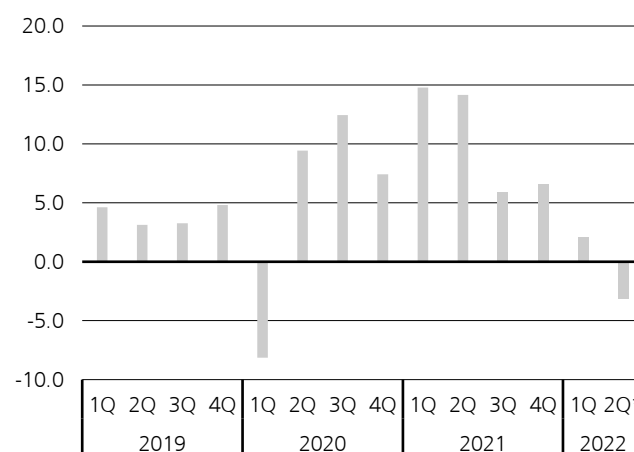
Private equity market environment

Now well into the fourth quarter, private markets investors are gaining more visibility into how the evolving global macro environment, which has been reflected in this year’s public markets volatility, is flowing through to private equity valuations. The fundamental driving forces remain the same as earlier this year: inflation-based margin compression, supply chain knock-on effects, and increased cost of capital as central banks have raised interest rates to combat inflation. Accordingly, the pace of private equity platform acquisitions has slowed considerably into 2022 following the unusually favorable market in 2021.

Private equity mark-downs so far have been modest (see Figure 1), especially compared to the public markets which drive some private equity mark-downs where private companies are valued on the basis of comparable public companies. We continue to believe that private equity-backed companies with strong sponsors are among the best-positioned to meet today’s challenges. These companies are adopting a long-term view, free from the pressure to meet quarterly earnings targets. They have hand-selected executive management teams, access to sophisticated processes and technology for improving their operational efficiency, and excellent advice as they consider accretive business-building investments.

On this last point, add-on M&A activity remains robust as a way to acquire revenue and bottom-line growth at attractive prices.

Figure 1: Private equity fund quarterly returns (%)



Source: Pitchbook (* = Pitchbook projection), as of November 2022. Past performance is not a guarantee for future results.

While this year has been challenging, we see greater potential for alpha than we have in the past few years for investors that are able to identify top-quality funds and transactions, and expect a greater dispersion of returns between top-quality and poor-performing funds. Conversely, this period could be particularly challenging for funds which were too quick to deploy capital into a valuation-rich environment and neglected vintage year diversification. In short, we expect to see a greater benefit for selecting the right funds and co-investments.

New private equity investment is proceeding at a more modest pace, which we perceive as a positive sign for the future returns of capital deployed today. Finally, there are signs that market forces are creating new opportunities in certain transaction types that private equity often pursues, such as in corporate carve-outs where the number of motivated sellers may be increasing as large corporates focus more closely on core operations and spin-off non-core activities.

Private equity exit environment

Exit activity has slowed dramatically since 2021, and IPO activity has ground to a halt (see Figure 2). Private equity-backed companies for the moment have two possible paths to exit: strategic (corporate) acquirors, or sponsor-to-sponsor sales. The main beneficiaries of this trend will likely be lower middle market sponsors, particularly up to the ca. USD 2 billion fund size range with greater headroom into which to grow their companies into attractive targets for acquisition by corporate acquirors and larger sponsors later in the private equity value chain. Conversely, the short-term exit environment could be more difficult for those (generally larger-cap) funds which relied on the now-closed IPO markets as a meaningful source of liquidity.

Venture capital market environment

The market environment for VC funds has been challenging. Investors are taking a more conservative view toward valuations, and while valuations have come down in 2022 across most asset classes and sectors, VC has been one of the more affected areas (see Figure 3). Technology in particular, which sits at the core of many VC investments, has had a tougher year than other sectors. This is in part due to the IPO slowdown, which has an outsized impact on VC-backed companies which often build toward a public exit.

Companies valued on the basis of their revenue (a standard for pre-profitability, high-growth companies) have retreated significantly, and VC funds are focused on managing cash reserves and expenses at their portfolio companies. Valuations are down for the second consecutive quarter and could have further to fall given the Nasdaq composite's 30% fall year-to-date. Especially exposed will be funds which are over-indexed to companies which have been prized for rapid, but loss-making growth, or with negative unit economics.

Others, with large bets on the right side of broader economic trends such as remote working, may fare very well (although cases like Zoom's public valuation show how fickle the market can be). On balance, it is likely that the flight to quality we see at the fund level will also translate to companies, with greater attention paid going forward to fundamentals (product and growth plan) where momentum may have previously played a larger role.

The modest downturn in VC valuations compared to the last decade of explosive growth will create its own set of opportunities. VC funds raised today will in many cases have the opportunity to participate in funding rounds of good companies at considerably lower valuations, with the potential to be very good vintages when valuations rebound.

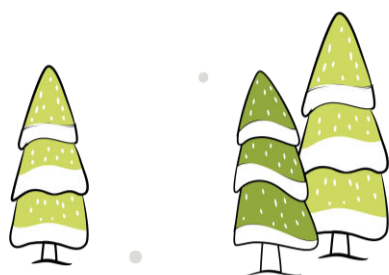
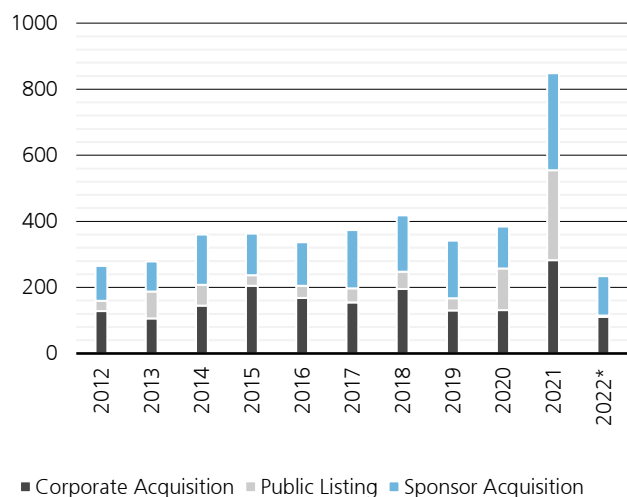
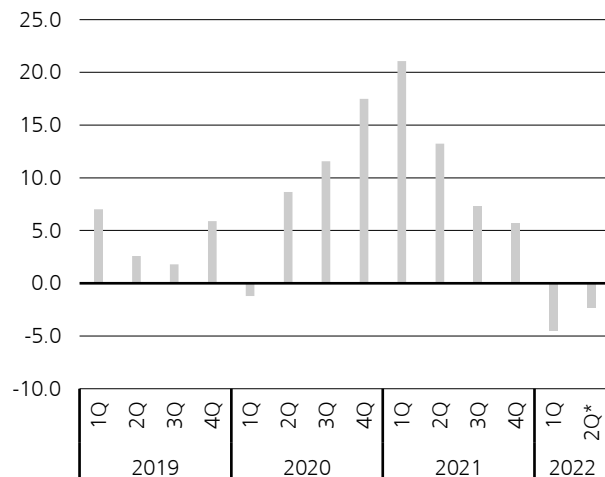


Figure 2: Slowing exit activity and a closed IPO market in 2022 (private equity exit value, USD billion, by exit type)

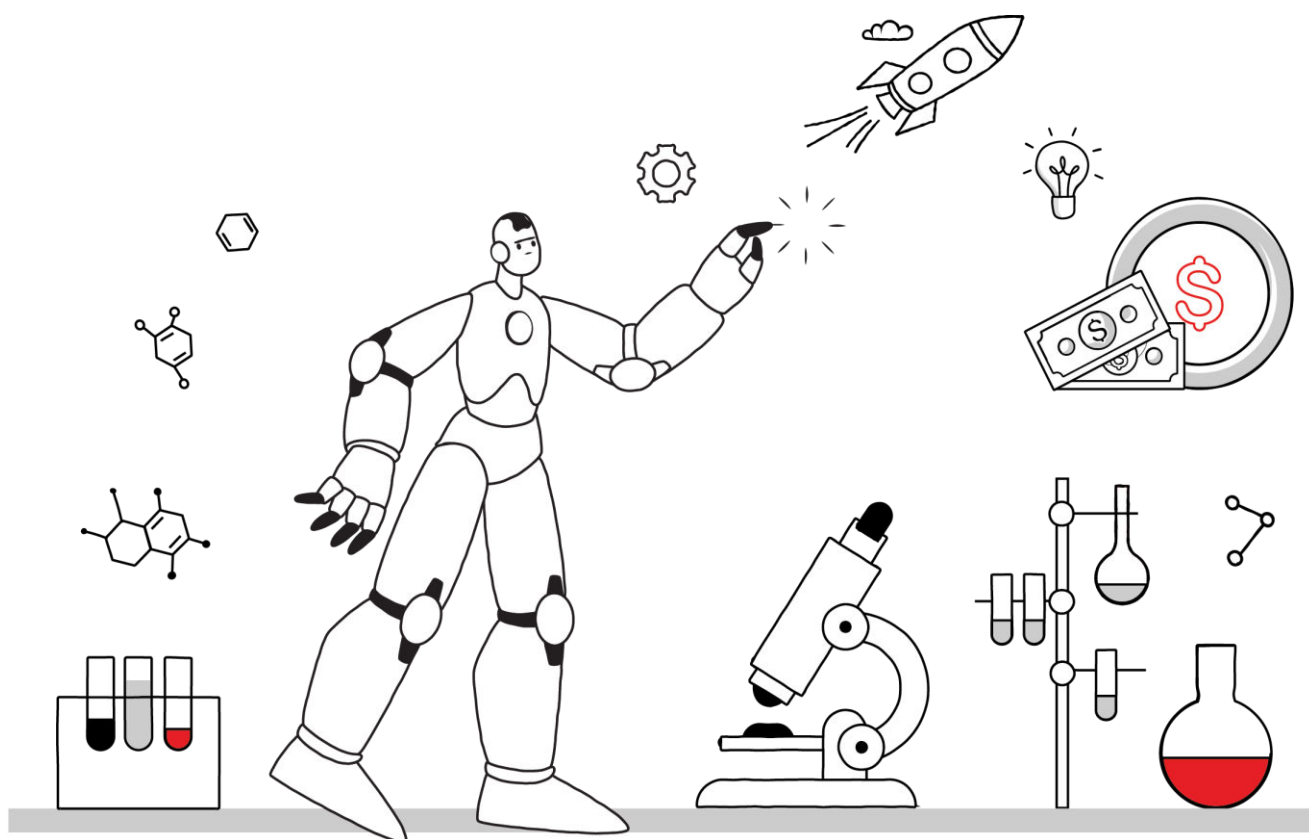


Source: Pitchbook, as of 30 September 2022. Note: Past performance is not a guarantee for future results.

Figure 3: VC fund quarterly returns



Source: Pitchbook (* = Pitchbook projection). as of November 2022. Note: Past performance is not a guarantee for future results.





Joseph Sciortino
Head Multi-Managers Private Credit

“While still small compared to the private equity industry, the private credit market has become an important part of our functioning financial ecosystem.”

Rising to a pocket of opportunity

An opportunity in private credit secondaries is emerging for the first time in history. Maybe this statement is not exactly true, but let me explain. The private credit market grew out of the GFC and the implementation of regulation that opened the door for private capital to step into the void left behind by regulated institutions (i.e. banks and insurance companies). Although there were private lenders prior to the GFC, they represented a small corner of the market focused on the riskier mezzanine loans and distressed credits. While still small compared to the private equity industry, the private credit market has become an important part of our functioning financial ecosystem. What followed, were investment strategies specifically labeled under *private credit*.

Past and present opportunities

Following the GFC, there were many institutions that had locked up investors with illiquid and distressed investments, otherwise known as *side pockets*, or *the tail*. Opportunistic firms emerged to buy these LP investments at substantial discounts, as investors feeling the stress of the financial crisis were looking to exit at any cost. They continued this pattern, buying the tail ends of closed-ended Special Situations/Distressed Funds or side pockets from hedge funds. The subsequent decade was characterized by coordinated government action supporting a benign market for credit, resulting in the ideal environment for this strategy.

Today the environment has completely changed. This doesn't mean that buying secondaries of distressed funds won't be a successful strategy, but focusing on credit selection will be much more important. However, what has emerged is the opportunity to buy performing high quality, top-of-the-capital structure credits at a discount to par.

In the past, no investor would rightly sell perfectly good performing credit at anything less than par. However, today it is the investors who are distressed rather than the underlying assets. Investors are overallocated to private credit and these forced sellers have come out like never before to reduce exposure. We have seen secondary flow increase 3x to 4x already and in our view, this will continue well into 2023 and 2024 as the *extension* of their portfolios weighted average life becomes abundantly clear.

Forces investors need to consider

Let's back track. There are three major forces at work here. First let's tackle the easy one using a fictitious investor, The Sciortino Pension Fund (*TSPF*, as finance loves acronyms). *TSPF* came into the year at their private credit target allocation of 10%. Focused mainly on direct lending, the private credit portfolio is up 4% YTD through June according to sources.

However, the overall pension is down 15% given the exposure to high yield and equities. As a result, TSPF is 2.2% over exposed to private credit (10.4% over 85% total pension assets = 12.24% private credit allocation). In true finance fashion this is referred to as *the denominator effect*. Due to this over-allocation, and the anticipation that the pension will actually be down further when private equity marks come in, the CIO of TSPF is looking to sell at least 2% of his current exposure.

The second and third forces are connected and a little more complicated. The typical direct lending fund is originating a 5- year corporate loan with a 2-year non-call feature. In a strong market where spreads are dropping, covenants are loosening and competition is fierce, the refinance rate is elevated as companies look to take advantage of better overall terms. This means the weighted average life (WAL) of the underlying lending portfolio is around 1.5 years as the companies refinance between year 2 and 3.

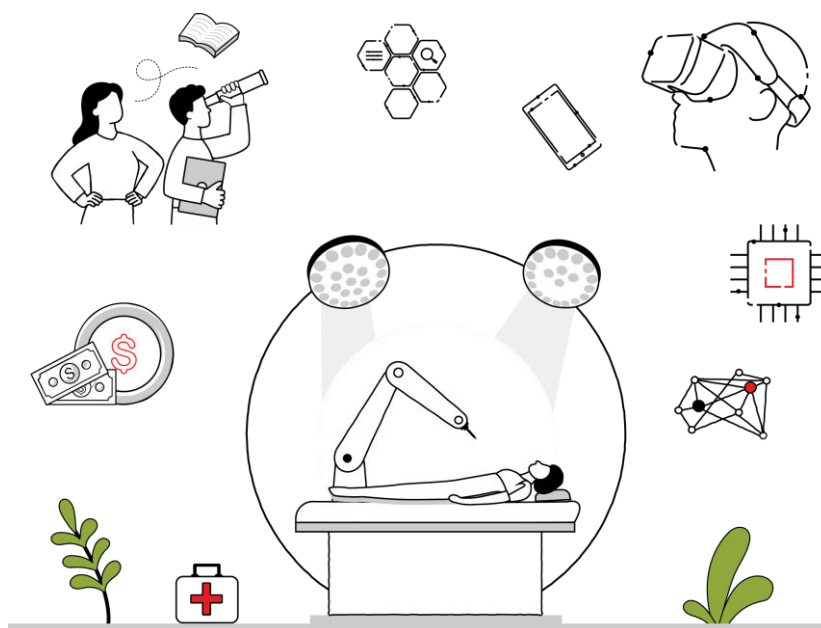
However, in the current environment where spreads are substantially wider and documents are much tighter, companies will remain with their current debt until maturity, 5 years post origination. This means investors' WAL extends to 2.5 years. The CIO of TSPF didn't anticipate this, not to mention any built-in credit extensions or distressed scenarios which will further extend cash flows. As a result, the pension will be further over-allocated, as the current funds draw capital to take advantage of the opportunity set, but cash flows back to the pension dry up. The CIO can't be blamed as this is the first time in his career he has had to deal with this extension effect. However, it has become evident that his pension has to reduce its allocation.

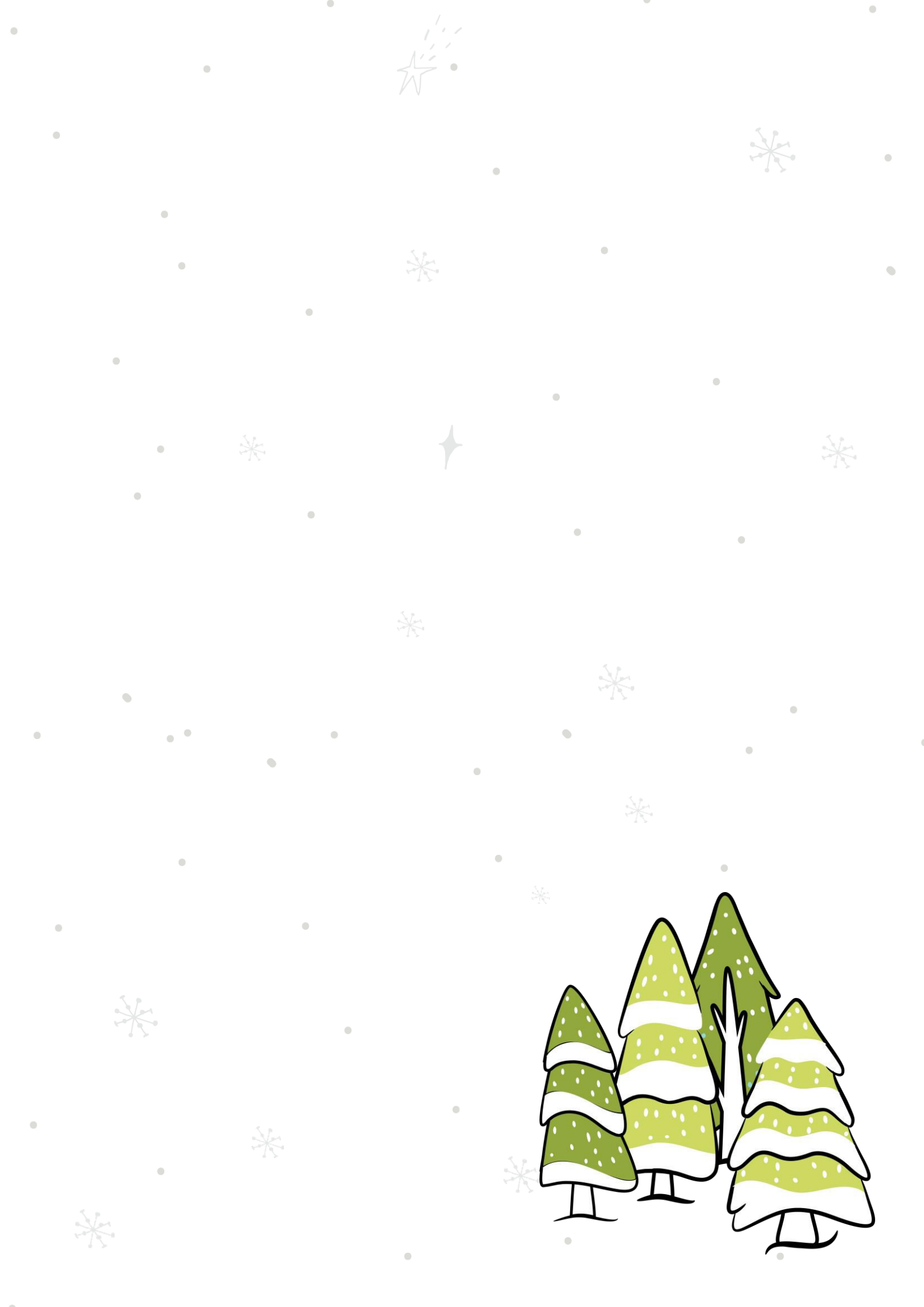
Targeting a set allocation utilizing closed-end funds can be very difficult. The investor must estimate the pace of capital calls during the investment period and cash flows in harvest. The typical private credit fund has a 2-year investment period and a 3-year harvest period plus the option for two 1-year extensions. However, in the heated period of the past 7 years, funds would typically draw capital in 12 to 18 months, do some recycling and return investors' committed capital within 2 years of harvest.

Due to the relatively short return of capital, the CIO of TSPF was not reaching his target allocation for private credit as planned. In response, he grows his commitment budget to try and achieve this goal. For example, he may estimate he needs to commit 12% in order to achieve a 10% allocation. Given the extension of the underlying assets as described above, this further exacerbates the pensions over allocation to private credit. It seems our CIO is substantially *over his skis*, as we like to say.

Caution and discipline

All this results in an environment where supply/demand is once again temporarily flipped and forced sellers will be at the mercy of a limited number of buyers. Disciplined investors with fresh capital can step into performing credit that can be stress-tested not just for the current environment but for the potential downside scenario that lays in front of us at attractive yields with convexity to the upside. While this rhymes with many other opportunities where stressed investors are forced to sell good credit at discounted prices, this is an opportunity set that has not presented itself in the short history of the private credit market.





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