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IPM

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Content

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Dear readers

The path that real asset owners have trodden over the last two years has been challenging. Investment volumes have hit record lows in some markets, at least in terms of inflation-adjusted figures. The bifurcation between markets' performance has also been vast: according to MSCI[1], US offices have seen their capital values drop by more than 30% from year-end 2021, while US industrial values are up nearly 5% over the same time period. And while not as extreme, similar stories can be said for many other private markets.

Real assets are naturally cyclical, every downturn carries with it the seed of the recovery. This downturn has been somewhat special as capital values have not suffered due to a weak economy or an oversupply but a fundamental shift in interest rates. Indeed, income growth in some markets – including some office markets – has been low double-digits over the past year alone. The fundamentals of the coming recovery are there.

But *there's many a slip between the cup and the lip*. Investors' sentiment is still weak and required returns are elevated. Buyers' and sellers' price expectations still often do not match, affecting transaction activity. Some markets' capital values are still correcting as appraisal values incorporate the shift in interest rates.

As always, real assets' heterogenous nature – every asset is special – needs to be kept in mind. Savvy investors can by now, thanks to the capital value correction of the last two years, find attractive risk-adjusted returns as the new cycle begins. They are set to benefit from being an early mover as the recovery gathers pace. But some assets are likely to see further capital depreciation before they become attractive on a risk-adjusted basis.

What is the status of private markets investments? Where are the fundamentals supporting the recovery? Read on for our latest views on investments in this space.

[1] MSCI US quarterly property index 1Q24

Global real estate

Approaching the bottom

Market close to leveling off

> "Real estate investment activity staged a modest recovery in the first quarter, though remained very muted on a historical basis. Capital values showed further declines in the US and UK, though the market looks to be approaching bottom. Prime yields in Tokyo edged higher as Japanese interest rate expectations crept up."
>
> **Fergus Hicks**, Real Estate Strategist

Pace of capital value decline eases

In the first three months of 2024 US economic growth was positive, but weaker than expected. GDP expanded at an annualized pace of 1.6% quarter on quarter (QoQ), a sharp downshift from the 3.4% annualized in 4Q23. China's GDP grew 1.6% QoQ, slightly stronger than the 1.2% QoQ growth in 4Q23, while annual growth was 5.3% year on year (YoY), slightly above the government's official target of ~5%. The housing market continues to weigh on the Chinese economy, though manufacturing activity has picked up.

Preliminary figures showed that the eurozone economy bounced back in 1Q24, growing 0.3% QoQ. These figures follow, on revised data, a brief technical recession in the second half of 2023. Strength in the 1Q24 economy was widespread, with Spain expanding 0.7% QoQ and Germany, which saw some quarterly falls in GDP in 2023, growing 0.2% QoQ. The eurozone jobs market continued to be robust, with the unemployment rate remaining at a record low of 6.5% in March. The US labor market also showed ongoing strength, with the unemployment rate rising marginally to 3.9% by April from the record low of 3.4% a year earlier.

In the US inflation ticked up in 1Q24 to reach 3.5% in March, while eurozone price pressures eased and inflation continued to fall, dropping to 2.4% in March, a 32-month low. Eurozone core inflation remained elevated at 2.9%, mainly driven by services inflation which can be explained as a temporary effect of the early Easter break. In both Europe and the US inflation is expected to trend towards 2%, though the final road will likely be bumpy.

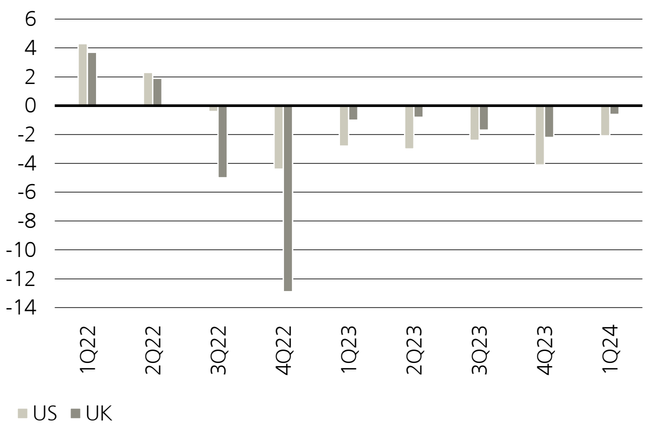
The Swiss National Bank (SNB) led other major central banks by cutting interest rates in March, reducing them by 25bps to 1.50%. The European Central Bank (ECB) continued to keep interest rates on hold, with its deposit rate at 4.0%, but is expected to deliver its first cut in June. The Fed also held rates, in a target range of 5.25% to 5.50%, with expectations for multiple rate cuts this year slashed on inflation concerns. We think that US interest rates have peaked, though when the Fed starts cutting is less clear. Divergences in policy are emerging between the US, Europe and Japan, with the Bank of Japan ending its negative interest rate policy in March.

Real estate investment volumes across the globe remained subdued in 1Q24, with all property investment totaling USD 125 billion, down from USD 155 billion in 4Q23. However, after allowing for the seasonally quieter time of year, global real estate investment volumes increased 16% QoQ in USD terms. Despite this, volumes remained very low compared to historical averages and were still down 58% versus 2Q22, when prices peaked.

Globally, most sectors and geographies showed some improvement in activity but remained weak. After allowing for seasonal effects, Americas investment volumes increased 24% QoQ in 1Q24 in USD terms and EMEA volumes were up 16%, whereas APAC volumes slipped 4% QoQ, with the region not having declined to the same extent during the downturn as the Americas and EMEA. At the global level, after allowing for seasonal effects, investment volumes rose across sectors.

Price adjustment in real estate values continued in 1Q24, though the pace of decline eased. According to NCREIF, US capital values fell 2.1% QoQ and, according to MSCI, UK capital values dropped 0.6% QoQ (see Figure 1). The falls left UK capital values 22% below their mid-2022 peak and US values down 18% from their mid-2022 peak. In both markets offices continued to suffer, taking US office capital values to 32% below their 1Q22 peak and UK office values to 28% below their 2Q22 peak. Retail and industrial capital values were more resilient and did not show significant changes over the quarter. In the rest of Europe, the latest data available from MSCI showed capital values down 18% to 4Q23 from their mid-2022 peak.

Figure 1: Capital value growth (local currency, % QoQ)



Source: MSCI; NCREIF; UBS Asset Management, Real Estate & Private Markets (REPM), May 2024. **Past performance is not a guarantee for future results.**

According to MSCI, capital values in Japan were broadly flat between mid-2022 and end-2023, having not faced the pressure of higher interest rates that markets in Europe and North America have. In 1Q24, cumulative rises in global interest rates combined with expectations for small medium-term increases in Japanese rates to push prime yields in Tokyo slightly higher. According to CBRE, office yields rose 25bps QoQ and logistics yields 10bps QoQ. Retail yields were little changed, falling 5bps QoQ.

Two factors needed to spur investment market

Following sharp falls in capital values over the past eighteen months, investors remain cautious on real estate. They are sitting on the sidelines, waiting to deploy capital when they believe market circumstances to be more favorable. Two factors look necessary to spur investment activity. First, the commencement of interest rate cuts by central banks, and second, confidence amongst investors that real estate values have bottomed out.

Neither of these factors are currently in place, but they do not look far away. In the *November 2023 edition of IPM*, we highlighted the significant uncertainty over interest rates moving into 2024 and what different scenarios might mean for real estate markets. The analysis proved prescient since not even halfway through the year market expectations have swung wildly, from 6–7 cuts from the Fed in 2024 at the start of the year, to just one or two cuts on the latest market pricing. Expectations have been pared back as US inflation has crept up. Indeed, no rate cuts this year is a plausible outcome. The interest rate outlook is also diverging between the US and Europe. Overall, though, we still expect to see some cuts by year-end, with Europe leading the US.

With regard to the second factor, of when the market will bottom out, we think the correction is now well-advanced. However, it's always hard, if not impossible, to pinpoint exactly when the bottom of the market will be. Higher frequency, listed markets can give a steer as to when real estate asset values might level off and listed markets have typically led property values by around two to three quarters. This was the case during the Global Financial Crisis (GFC) and pandemic-induced downturns (see Figure 2). Listed markets themselves have been hit by interest rate volatility towards the end of 2023 and in 2024. On the basis of average prices over the quarter, listed markets showed some recovery in 1Q24 and look to have bottomed out in 4Q23. This suggests that global property capital values will bottom out in 2Q or 3Q this year.

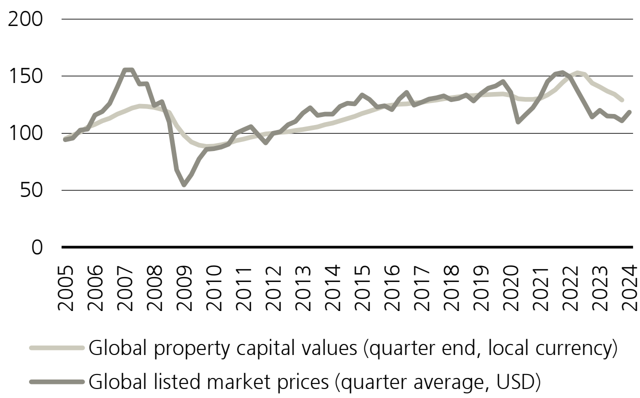
Hence moving into the second half of the year the two conditions needed for investors to deploy capital into real estate look like they will be met. This should prompt a pick-up in transaction activity at both the asset level and for real estate funds. The main risk to this outcome is inflation remaining high and sticky and central banks having to keep interest rates elevated for longer as a result. This could translate into further investor caution, weigh on real estate values and hold back recovery in the market. The US seems more at risk of this outcome than European markets, which have not seen the same uptick in inflation as the US.

For investors higher up the risk curve in the value-add and opportunistic space, apart from offices, the next 6–9 months may be the remaining window for them to lock in deals which benefit from distressed and discounted pricing. Cuts in interest rates should gradually relieve pressure on refinancings and make raising debt to finance new investments easier and more feasible. In the medium term, lower interest rates should see debt enhance returns again, although it is unlikely to be able to turbo-charge them like it did during the post-GFC decade of ultra-low interest rates.

Given the lower contribution from leverage, real estate investors need to look to good asset management to drive returns. This means ensuring full occupancy and rapid re-letting of space as leases end, and embarking on initiatives to improve assets and drive rental growth. As well raising the spec of buildings for occupiers and users, improvements also focus on the sustainability aspects of buildings and upgrading energy efficiency. This will make them more attractive to corporates and help them ensure they meet their net zero pathway targets.

We continue to think that the office sector will underperform and be marked by a sharp polarization between prime and secondary grade assets. Indeed, it is likely that a significant number of offices will eventually need to be repurposed, when feasible, to other uses, such as residential. Conversion to lab space is another possibility, subject to exacting building specs being met. We expect stronger performance for the retail, industrial and residential sectors and also the niche sectors such as self-storage and life sciences. Debt secured against real estate is also attractive in the higher interest rate environment, as banks focus on managing their existing loan books.

Figure 2: Capital value and price indices (1Q12 = 100)



Source: MSCI; NCREIF; Refinitiv Datastream; UBS Asset Management, Real Estate & Private Markets (REPM), May 2024. Note: Global real estate capital values to 4Q23 and refer to Australia, Canada, Ireland, New Zealand, UK and US weighted by market size; global listed prices refer to FTSE Epra NAREIT Developed Index to 1Q24. **Past performance is not a guarantee for future results.**

Unlisted real estate sector performance outlook

	Negative		Neutral		Positive
US	Office		Retail, industrial, residential, hotel		
Canada			Office, retail, industrial, residential, hotel		
France			Office, residential	Retail, hotel	Industrial
Germany		Office	Retail, residential	Hotel	Industrial
Switzerland			Office	Retail	Industrial, residential, hotel
UK	Office		Residential, hotel	Retail	Industrial
Australia		Office		Retail industrial, residential	Hotel
Japan				Office	Retail, industrial, residential, hotel
Singapore		Office	Retail	Industrial, hotel	

Source: Oxford Economics; UBS Asset Management, Real Estate & Private Markets (REPM), May 2024.
Note: Classifications refer to expected total returns after currency hedging over the period 2024-26 versus global all property. **Classifications are not a guarantee for future results.**

Europe real estate

A new cycle begins

On your marks

“The European real estate market is healing. But the next few months will be crucial in determining how robust the recovery will be.”

Olaf Margeirsson
Real Estate Research & Strategy – Europe

Inflation has not been beaten yet

We've come a long way from the highs of inflation and interest rates – and the ensuing capital value correction. A new cycle is in its infancy, but the effects of the last one still linger.

Choppy inflation waters

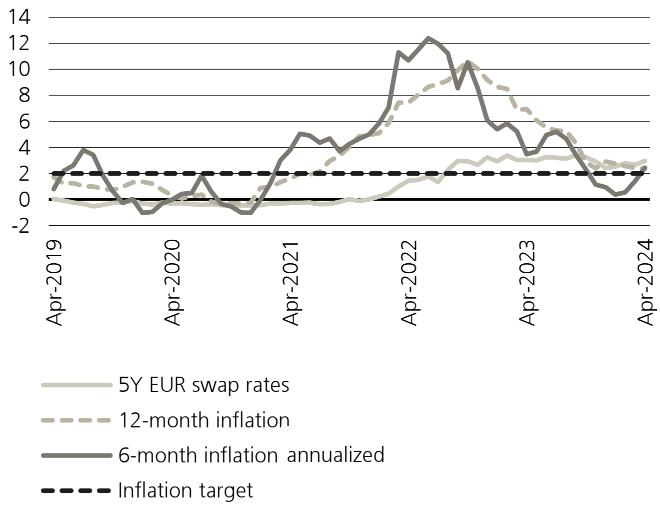
The European economy, despite lackluster growth, continues to surprise on the upside. The eurozone's gross domestic product (GDP) expanded by 0.3% in 1Q24, its strongest pace for more than a year and up from two consecutive quarters of GDP contraction, thereby marking the end of the recession. A key contributor to the growth was Germany, where the economy expanded by 0.2% in 1Q24, up from -0.5% in the last quarter of 2023. The Spanish economy, in the meanwhile, has now expanded by 0.7% two quarters in a row while France and Italy saw GDP growth of 0.2% and 0.3% respectively in 1Q24.

Across the Channel, the UK economy has exited its recession already, growing 0.6% in 1Q24. Purchasing Manager Indices (PMIs) also signal a growth trend, with PMI for services coming in at a solid 55.0 in April 2024, its highest value for almost a year. The manufacturing sector is somewhat struggling though, with April PMI coming in at 49.1. A similar story is to be told in the eurozone, where services are expanding (April PMI: 53.3) at a pace not seen for a year while manufacturing (April PMI: 45.7) is hampered by secure access to gas and cheap-enough energy, especially in Germany (manufacturing PMI: 42.5).

Overall, we expect the eurozone economy to expand by 0.6% and 1.2% this year and next, while the UK should see only 0.2% growth this year before rebounding to 1.5% in 2025. The two-speed dynamic between the service and manufacturing sectors should however be kept in mind, as it may create a downside case in the form of unequal growth between areas and parts of the economy which may affect the growth dynamic down the line.

Parallel to the resilient economy, the inflation dynamic continues to improve – albeit perhaps not enough. Headline annual inflation in the eurozone and the UK is currently around 2.4% and 3.2% respectively, edging towards the 2.0% inflation targets of the region's key central banks. However, the most recent data points imply that annual inflation has begun to flatten, repeating the pattern visible in the US economy: the annualized 6-month inflation is now equal to the 12-month inflation for the first time since autumn 2022. This implies that the momentum in inflation has stabilized around the current value (see Figure 1) and that value is still too high.

Figure 1: Eurozone inflation and interest rates



Source: Eurostat; Refinitiv; UBS Asset Management, Real Estate & Private Markets (REPM), April 2024.

Our base case is that inflation in the eurozone ends the year around its current value (2.4%) before softening marginally to 2.1% in 2025. The numbers are similar for the UK. This would, we expect, push interest rates on the short end of the yield curve somewhat down as policy rates are cut to 3.0% (deposits) and 4.25% in the eurozone and the UK respectively by the end of the year.

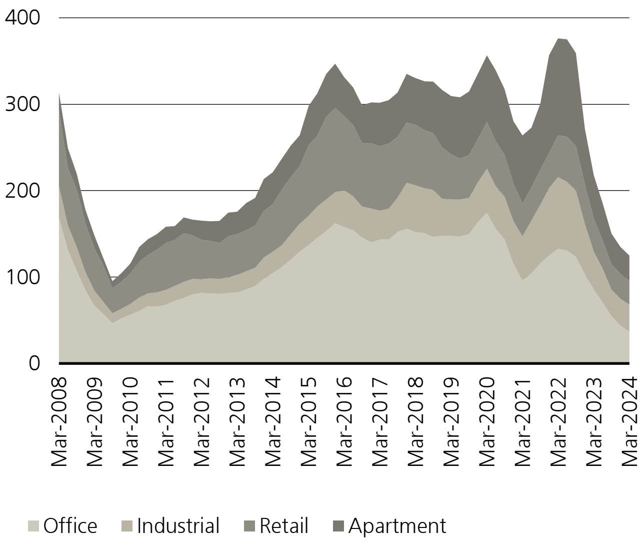
However, the risk exists that inflation momentum builds up again, especially as services inflation is still elevated at 3.7%. If that happens, the expected policy rate cuts are likely to be delayed to later this year. Longer-term risks to the inflation outlook are then also likely to spill over onto long-term interest rates, which are the key risk-free pricing standard for real estate investments. We can already see this risk being priced into interest rates as the 5-year EUR swap rate is now around 3.0% having dipped below 2.5% around the end of last year. This has raised the debt financing costs again, shrinking the set of attractive risk-adjusted investment opportunities at any given capital value.

The European real estate market is healing. But the next few months will be crucial in determining how robust the recovery will be. The key dynamic to watch is the inflation development, as it determines how aggressively central banks will be able to release their brakes by lowering policy rates. The dynamic will also affect mid- and long-term interest rates, and will consequently greatly affect how firm the recovery in real estate capital markets is set to be.

Transaction levels continue to be suppressed

Total annual commercial transaction volume in Europe amounted to EUR 95.7 billion by the end of 1Q24 according to preliminary data from MSCI: the lowest investment volume in real terms since 3Q09 (see Figure 2). Both the office and retail sectors are at their all-time lows in terms of (real) investment volume as of 1Q24, seeing EUR 36.9 billion and EUR 27.5 billion respectively traded in the year ending in 1Q24. The wider industrial sector, however, saw assets worth EUR 31.3 billion change hands over the same time period and apartments worth EUR 29.2 billion.

Figure 2: Europe, inflation-adjusted investment volume by sector (EUR billion)



Source: MSCI; UBS Asset Management, Real Estate & Private Markets (REPM), March 2024.

The disconnection between sellers' and buyers' price expectations is still in place, standing at ~20-25% in many cases. This gap can only be closed in two ways: sellers capitulate eg, due to valuations reflecting better the low level of liquidity in transaction markets, or buyers' risk-adjusted required returns are lowered eg, due to lower interest rates or easier access to debt financing. The latter is somewhat unlikely still, as the risk of higher-for-longer interest rates has increased again while data from the UK tells us that debt financing has hit its lowest value in over a decade.

The probability of sellers capitulating is also somewhat low: external debt was largely kept under control in the years after the GFC, keeping debt-service coverage and loan-to-value ratios at levels which allow investors today to absorb a considerable increase in debt costs. Indeed, distressed sales are few, amounting to less than EUR 2 billion in 2023 (compared to EUR 3–6 billion p.a. in 2016–2019).

Their share of total transaction volume is rising though, and as such they may increasingly become important data points in valuations as appraisers look for sales comparables in the market. Nevertheless, it is difficult to see transaction activity rising significantly while the new level of interest rates is digested by appraisers and investors alike. High-equity buyers are likely to continue enjoying the lack of competition in the transaction market.

However, there are some green shoots in place. First, the annual drop in transaction volume is somewhat improving despite it still being negative. This applies primarily to the industrial (logistics) sector, where the annual drop in inflation-adjusted investment volume is now -28% compared to -47% in 4Q23. So while the change in transaction volumes is still negative, the momentum has begun to improve.

Second, many contrarian investors would highlight the fact that investment volume has been so weak eg, hitting an all-time low in the office and retail sectors on an inflation-adjusted basis, and take it as a signal of a recovery being around the corner. Any investor that entered the market during the lows of 2009 would eg, tell you that the timing was optimal. However, the dynamic in leasing markets is now considerably different and calls for a granular and selective approach.

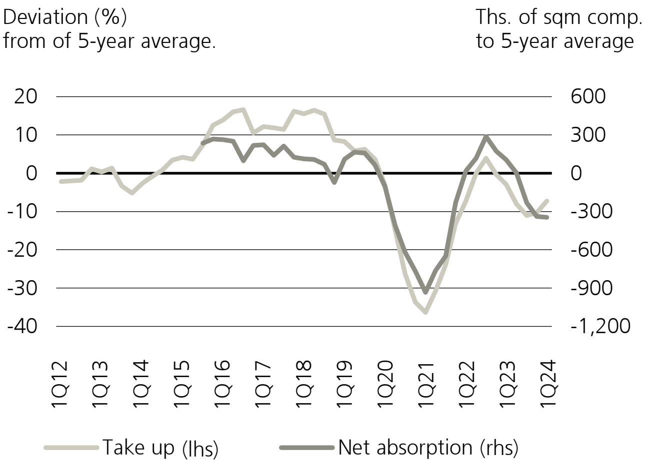
Leasing markets painted by structural trends

Two trends have generally continued in the office leasing market. First, total demand is soft (see Figure 3). Looking at the sum of some key European markets – 20 markets in total[1] – we see that only three of them are seeing gross demand (take up) for offices over the last year being higher, than over the last five years: Milan, The Hague and the City of London. Other markets' gross office demand is often 10-20% below the five-year average – which includes the COVID-19 affected numbers for 2020 and 2021. Looking at the sum of take up over the 20 markets we see it is approximately 7% below the 5-year average.

Furthermore, trailing annual net absorption (net demand) is negative by 266,000 sqm in the 20 markets and well below the average 5-year trailing net absorption. With office completions in 1Q24 totaling 853,000 sqm, only some of which were pre-let, the amount of vacant space has generally increased. However, vacancy rates still only sit around 8% on average over the region as a whole and out of the 28 markets we have up-to-date data for. Nearly half (11) saw their vacancy rates drop in 1Q24.

Furthermore, prime rents continue to rise over the past four quarters in many markets, up 13.5% in Madrid, 10.7% in London West End and 14.3% in Munich to name some of the cities with the strongest prime office rental growth. Only one market, Dublin, saw prime rents drop (-3.9%) over the past 12 months as vacancy rates, now at 17.7%, climb to levels last seen in 2013. The need for a nuanced view in European office markets is therefore high. Demand is clearly weak but it has shifted towards the high-quality assets which continue to see their rents rise despite the weak overall demand, the reason being that tenants want to rent high-quality assets in order to entice workers back from their desks at home.

Figure 3: Annual gross and net demand in 20 office markets in Europe



Source: CBRE; UBS Asset Management, Real Estate & Private Markets (REPM), 1Q24.

Demand in logistics markets continues to moderate around the pre-COVID-19 level of approximately 4 million sqm per quarter. After the soft economy affected demand during the latter half of 2023, net absorption hit 3.8 million sqm in 1Q24 in Europe's main logistics markets, up 12% QoQ. Net completions have recently kept pace with absorption, with 4-quarter trailing net completions amounting to 17.8 million sqm vs. net absorption of 12.7 million sqm over the same period.

Vacancy rates have consequently risen but from a low base, standing now close to 5% in the UK and France, but below 3% in Germany and the Netherlands. Prime rents are consequently still rising: out of 81 logistics markets in Europe, 64 are seeing rents rise over the last year, thereof 20 where rental growth is more than 10% YoY.

The residential sector is another sector where rents are rising on the back of shortage of housing for rent. Vacancy rates in the sector hover just above 1% in Europe as a whole, clearly showing how acute the supply shortage on the rental market is. Rents are consequently rising, with rental growth hitting 5.9% YoY by end of last year, beaten only by the industrial sector. Student housing rents are especially under pressure, a key reason why annual rental growth in the Spanish residential sector rose by more than 12% in 2023.

The life sciences sector also continues to prove its attractiveness from landlords' perspective. Lab vacancy in the Golden Triangle remains very low or around 1% in Cambridge and London but 4% in Oxford. The sector is slowly but securely transforming from the old owner-occupied model towards landlord-tenant setup as pharmaceutical companies wish to use their capital to invest in research and development R&D and other capex rather than bind it in buildings.

There is an acute shortage of flexible lab space in multi-let life-sciences buildings, especially for companies that are outgrowing their incubator space and are looking for space to accommodate them during their next growth stage. The life sciences industry is also facing multiple new trends – mRNA vaccine development, implementation of artificial intelligence (AI) in R&D and manufacturing and home-shoring to name just a few – that are likely to continue driving the leasing demand for life sciences buildings.

Finally, the retail sector continues to see improvements in the leasing sector, albeit mixed across countries. In Germany, vacancy rates in the sector have hit 11% as of year end 2023 while they are at only 4% in France. Even the UK, where the retail sector was struggling the most, has seen vacancy rates drop from their highs of 10% back in 2021 down to 6.5% today. Annual rental growth has now been positive, albeit low (1% by 1Q24) in the UK for five consecutive quarters, confirming that while the sector's recovery is weak it is far from the precipice, we were looking at 2–3 years ago.

Given how high yields are in the sector – ca. 6.0% for a well-let retail warehouse in the London area – income-driven investors may consider entering it again now that leasing fundamentals have improved significantly. In fact, the London retail warehouse segment has seen yields drop since the beginning of the year, sparking the question: are we at the trough in capital values?

Near the trough

The direction of capital values is a tug of war for now
There are four distinctive yet interconnected factors to consider when we estimate where we are in the capital value cycle: the gap between appraisals and transaction values, (long-term) interest rates, leasing market fundamentals and market sentiment.

We know that appraisal and transaction values can become disconnected, especially when fundamentals, such as interest rates, change quickly. The UK appraisal methodology focuses more on updating valuations so that they reflect potential transaction prices, while eg, German appraisers have the tendency to change appraisal models slowly. The latter creates a smooth valuation trend, which is welcomed by many long-term real estate investors, compared to the potentially sharp valuation corrections that are more often observed in the UK.

But smoothing valuations over time risks creating a wedge between transaction prices, which are a function of what potential buyers consider the fundamental value of real estate to be eg, interest rate levels, and valuations. At the same time, potential sellers anchor themselves at the appraisal value and are very reluctant to sell assets below it. If they are not forced to eg, due to limited need to de-lever portfolios, the number of transactions drops. This is indeed the situation in many European office markets.

Low transaction volume affects sentiment: many market participants want to see at least a normal level of transaction volume to have the confidence to enter markets. Weak market sentiment can cause the number of prospective investors to drop, which affects transaction values as fewer investors bid against each other on the assets that are sold. This can cause a pressure on transaction values, which then, with time, feed onto valuations as appraisers consider sales comparables when they estimate properties' values.

In our *last commentary from November 2023*, we discussed how common it is to see interest rates drop by ~150bps over the next two years after their cyclical peak. We penciled in a target of seeing the 10-year Bund and the 10-year Gilt around 2.3% and 3.5% respectively around the end of 2024 and, if history is any guidance, around 1.5% and 3.0% by end of 2025.

While we recognize the upside risk of policy rates staying higher for longer – see previous discussion – we see nothing that fundamentally changes our view regarding the longer end of the yield curve. We will need to see a few more negative inflation measures before we change our minds. Until then, however, our view from November on the interest rate influence is largely unchanged.

The same goes for the leasing market fundamentals. The key trends are: contraction of office demand but a simultaneous shift towards central and high-quality assets creating a wedge between prime and secondary rental growth; moderating but healthy logistics demand where increased supply reduces pressure on rental growth towards its structural trend; shortage of life sciences and residential housing driving rents where regulation allows and; weak but persistent rental growth recovery in the retail sector. There are few signs in leasing markets, bar secondary-quality offices and ESG non-conforming assets, that spell serious trouble for investors.

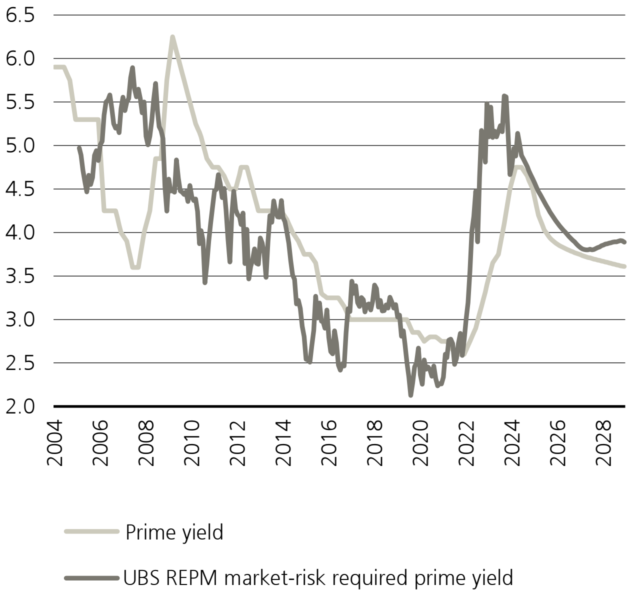
It is the first two factors – weak market sentiment and the gap between valuations and transaction values – which are heavy weights on European real estate markets. The other two, interest rates and leasing fundamentals, are however neutral or supportive by now.

Consider the following. As interest rates rose in 2022, so did risk-adjusted required returns across all real estate investment strategies. Higher required returns call for a) lower going-in price or b) stronger rental growth. Where rental growth was inadequate, values dropped and net initial yields rose. This is what happened in Paris CBD offices (see Figure 4).

However, now that yields have corrected and leasing fundamentals are sound, the gap between yields and market-risk driven yields has narrowed. This is the time when one should be investing in a market as values have largely corrected and the cyclical peak in yields – accompanied by the cyclical trough in values – is near. There is a tug of war happening between the first two factors, delaying the capital value recovery, and the fundamentals, which point to rising capital values.

[1] Vienna, Brussels, Paris Ile-de-France, Berlin, Dusseldorf, Frankfurt am Main, Hamburg, Munich, Dublin, Milan, Amsterdam, Rotterdam, The Hague, Utrecht, Lisbon, Bratislava, Barcelona, Madrid, London City, London West End.

Figure 4: Paris CBD offices – prime yield and our estimate for market-risk required prime yield (%)



Source: CBRE; UBS Asset Management, Real Estate & Private Markets (REPM). Last data point: 1Q24, forecast from May 2024. **Past / expected performance is not a guarantee for future results.**

On your marks!

The Paris 2024 Olympics start in July. Every runner knows that while the race only begins when the starter pistol goes off, the competition begins long before the training sessions: "train hard, win easy" as was once said about what Kenyan runners do. Injuries must also sometimes be endured, a period when runners may change their training and race schedule to recover. A successful race is also only performed if the runner has a good warm-up and is fully prepped on the line when the pistol fires.

Many investors in European commercial real estate markets have suffered injuries over the last two years. Some are likely to endure further setbacks, depending on when, if and how the gap between valuations and transaction prices is closed. Many investors are wary, burned by recent experiences. They are waiting for the starter pistol to go off before they re-enter the real estate market.

Other investors are not. They are warming up already, knowing that while they cannot with 100% accuracy predict when the market's pistol goes off, they certainly want to be ready at the starting line when it happens. They are the ones who are likely to outperform, the ones who train hard and win easy.

Switzerland real estate

Stability through strong fundamentals

Strong user markets support values

"The high demand on the housing market, the resulting rental growth and the reference interest rate mechanism have supported capital values on the Swiss real estate market in the higher interest rate environment. The recovery in risk premiums and (further expected) interest rate cut(s) should help the market regain momentum."

Kerstin Hansen, Research Analyst – Real Estate DACH

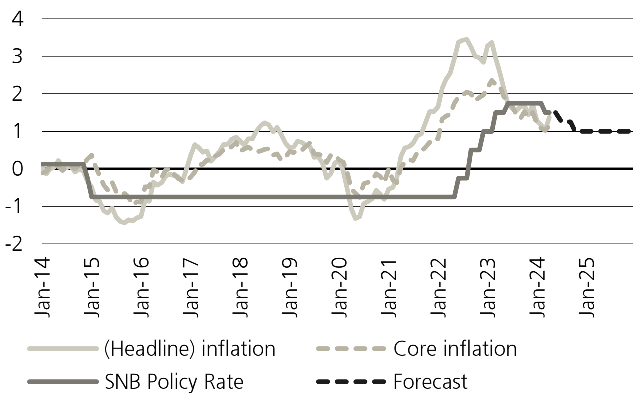
Recovery of risk premium

SNB initiates interest rate turnaround, brightening of economic conditions expected in 2H24
After the Swiss economy grew at an above-average rate of 2.7% in 2022 due to pandemic-related catch-up effects, significantly lower growth of 0.8% was recorded in 2023. This was mainly due to a weaker industry performance – driven also by the economic slowdown in neighboring European countries. The unemployment rate has gone up from the minimum of 1.9% in spring 2023 to a still low 2.3% in March 2024. Total employment still grew by 70,400 full-time equivalents.

Also, thanks to the solid employment situation, private consumption was stable in 2023, supporting particularly the services sector of the Swiss economy. The bifurcation of the economy remains evident in the current purchasing manager index (PMI) results. At the same time, the industry PMI at 41.4 points sits below the growth threshold of 50 points for five quarters now, the services PMI shows robustness at 55.6 points. With the service segment continuing to serve as the motor of the Swiss economy, growth is expected to be 1.3% in 2024 and 1.5% in 2025.

Inflation has come down significantly compared to the peak in the summer of 2022. In 2023, annual inflation was still 2.1% on average, but back in the Swiss National Bank's (SNB) target range of 0 to 2% since June. In April 2024, headline inflation came in at 1.4% and core inflation at 1.2%. Since February 2024, the price of domestic goods has also dropped below the 2% threshold. In view of the strong decline in inflation numbers, the SNB initiated the interest rate turnaround on 21 March 2024 and lowered its key interest rate from 1.75% to 1.5%. Two further rate cuts of 25 basis points each are currently expected for the remainder of 2024 (see Figure 1).

Figure 1: Inflation, core inflation and SNB policy rate



Sources: Refinitiv; SNB; UBS CIO GWM, May 2024.

Higher risk premiums lead to more market momentum
Prior to the aforementioned turnaround, the increase in the key interest rate by a total of 250 basis points between September 2022 and June 2023 has changed the environment for real estate investment drastically. With some delay, prime yields on the real estate market have adjusted to the new conditions. For residential and office properties, by 4Q23, initial yields in the prime segment have increased by 65 basis points compared to their absolute minimum in 2Q22. The net initial yield on prime retail space, which recorded much less momentum in the years before the interest rate turnaround, rose by 50 basis points over the same period. As the 10-year government bond yield came down, the real estate risk premium rose back to around 150 basis points in 4Q23, approaching its 25-year average of 170 basis points.

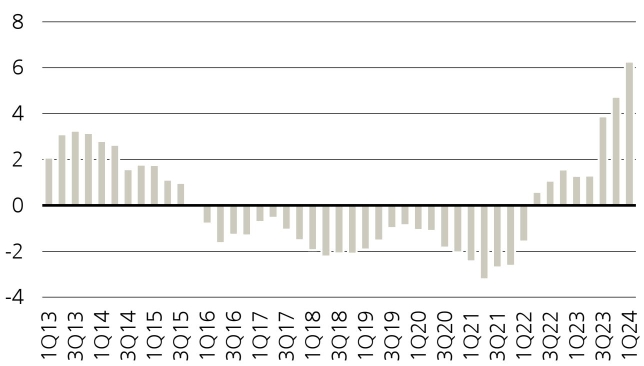
With risk premiums rising, the transaction market is likely to pick up again too. Due to the disagreement between buyers and sellers regarding a reasonable price level, transactions had literally come to a standstill over the past two years. In the residential segment, which is supported by a very strong user market, the correction in yields has slowed significantly, pointing to a bottoming out. Even though portfolio valuations are lagging behind slightly, the combination of the bottoming out, the interest rate turnaround and decreasing denominator effects should help the real estate transaction market to gain momentum again.

Strong demand growth drives up asking rents
Demand on the Swiss rental housing market continues to rise sharply. With net immigration of 98,900 people, the 2023 figure was only slightly below the 2008 record level. In the first three months of 2024, net immigration already reached around 21,500. At the same time, supply expansion remains depressed. At just under 32,700 residential units, annual building permits in 2023 were around one third below the long-term average.

With 9,300 permits in the first quarter, the start of 2024 does not indicate a strong trend reversal either. As a result, vacancies continue to fall, which in turn drives up rents. In 1Q24, asking rents rose by 6.3% YoY across Switzerland (see Figure 2). Regions with exceptionally high demand such as eg, Zurich recorded double-digit rental growth. On top of that, in-contract rents have risen as a result of two 25 basis points steps in the mortgage reference rate each in June and December 2023 to now 1.75%. The mortgage reference rate links to the average of all interest rates applied to mortgages in Switzerland.

If this rises, residential property owners can adjust rents. A further increase in the reference interest rate is currently no longer expected. However, due to continued strong household growth and record low construction activity, the vacancy rate is expected to drop below 1% in 2024. Thus, rents should continue to grow strongly. The increasing shortage and high rental growth are likely to lead to a further increase in the number of policy initiatives aiming at regulating the rental housing market. While around 30% of the Swiss rental housing stock is already subject to some type of regulation (cost rent, right of first refusal or rent control), this share could increase to about 50% if all currently planned additional measures are put into force[1]. This in turn would however further reduce the incentives to construct new housing and thus exacerbate the housing shortage.

Figure 2: Annual growth rates advertised rents
(%, YoY)



Source: Wüest Partner, 1Q24.

Polarization of commercial real estate sector
While the rental housing market is characterized by scarcity more or less across the country, the situation of commercial real estate varies greatly depending on the location and quality of the property. Office space demand has changed significantly over the past four years due to home office and hybrid working models. Compared to other countries, Swiss companies have, however, a significantly higher office presence.

Moreover, the effects of the current economic slowdown stay within reason due to the stability of the labor market. As a result, the supply ratio only increased marginally from 4.5% in the previous year to 4.6% in 2023. However, the polarization observed on international office markets is also evident in Switzerland. Hybrid work models reduce the space needed per employee. For the space demanded, however, quality requirements are way up.

As companies want to attract and retain employees in times of a labor shortage, there is strong demand for easily accessible, modern and sustainable spaces. Secondary assets, on the contrary, increasingly experience difficulties in rental negotiations. This is also reflected in the development of rents: while prime rents (of top objects in prime locations in Zurich or Geneva) in the office sector rose by 5.9% YoY in 1Q24, average rents fell by 3.1%.

The picture in the market is similar for retail space: despite currently poor consumer sentiment and declining retail sales, retail spaces in central, well-frequented locations continue to record solid demand and rental price growth. The popularity of prime locations is supported also by the return of tourists: with 41.8 million overnight stays, 2023 was not only a further recovery from the Corona-related slump, but a new record high for the Swiss hospitality industry.

Positive rental prospects support property values
The rise in interest rates has also led to corrections in the Swiss real estate market in 2023. Compared to many international real estate markets, due to the lower rise in interest rates and solid fundamentals of the user markets, the value corrections of -1.7% across all segments in Switzerland were however very moderate. The situation on the rental market was particularly supportive for the residential segment. While residential real estate lost 0.9% in capital values in 2023, the correction in the office (-2.6%) and retail (-2.5%) segments was almost threefold.

The focus on user markets that characterizes the Swiss valuation system compared to systems which are strongly oriented towards transaction markets means that the value corrections are more moderate compared to other countries but are also likely to drag on for a little longer. In the commercial segment in particular, the corrections should therefore continue in 2024 with -1.8% for office spaces and -1% for retail spaces. The very positive prospects for rental growth on the residential market are likely to turn capital growth of residential real estate positive again already in 2024, with an appreciation expected to be almost neutral at +0.4%.

While capital value growth was elevated due to the high investment pressure during the negative interest rate period, this is currently no longer expected. Income return and with that active asset management – especially when sustainability factors are taken into account – are therefore clearly slipping to the center of investment management.

[1] Details can be found in the publication *UBS Real Estate Focus 2024*.

APAC real estate

Easing into a recovery cycle

Stay alert

"Resilient macro performance is likely to keep interest rates elevated. More cap rate expansions are possible but the worst is likely behind us. We see values emerging in Australia and continue to like Japan residential."

Wai-Fai Kok
Head of Real Estate, Research & Strategy – Asia Pacific

Correction cycle nearing the end

The economy
APAC macro performance has been resilient in recent quarters despite much tighter monetary conditions. Since December 2023, Oxford Economics has upgraded its 2024 growth forecasts twice and the positive revision was broad-based across most countries. 1Q24 GDP releases so far have been solid with several countries surprising to the upside. Oxford Economics now expects APAC GDP to grow faster at 3.8% YoY for the full year (from 3.5% in December). Nevertheless, this represents a slowdown from 4.4% in 2023. Singapore, South Korea and Taiwan are projected to be among the outliers from this moderation as these trade-reliant countries benefit from the bottoming out of an export slump. On a 3-month rolling basis, APAC exports rebounded 3.3% YoY in February 2024 after a 6.3% decline in 2023.

Private consumption has slowed but not collapsed despite much weaker consumer sentiment, likely thanks to the robust employment situation. The labor markets remain tight and especially so in Australia. It should loosen as growth slows, but will likely be gradual without a recessionary outlook. Inflation is sticky as a result. Price pressure has moderated significantly from the peak but the last mile to central banks' targets seems painfully slow. This could be further exacerbated by tensions in the Middle East which have negative implications for oil prices.

An economic soft-landing is becoming a reality given the resilient macro and job markets. Consequently, there is likely little urgency for central banks to pivot in the immediate term. Interest rates could stay elevated and expectations of rate cuts have been postponed multiple times. Surprise rate hikes cannot be ruled out either as evidenced in Taiwan (+12.5bps in March) and Indonesia (+25bps in April). That is not our base case, however.

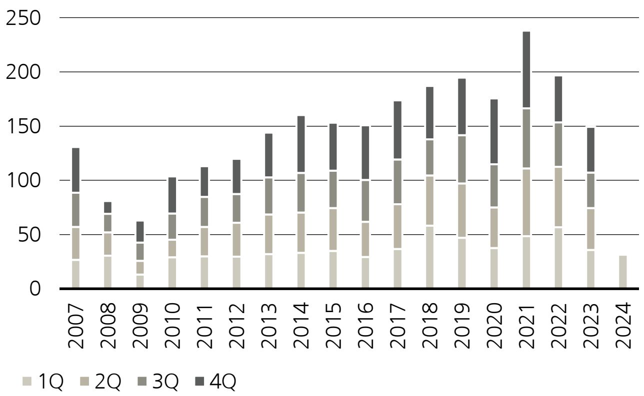
Based on UBS Investment Bank's latest forecasts, Europe will likely be the first to deliver a rate cut in 2Q24, followed by the US in 3Q24. In APAC, South Korea could start in 3Q24 and Australia among the last in February 2025. China has already been tweaking at the margin since 2023. Meanwhile, Japan is on a completely different track due to its reviving nominal growth. Its negative interest rate policy ended in March 2024 and the overnight call rate was raised, for the first time since 2007, by 10bps. However, the Bank of Japan's tone remained dovish for future rate hikes. Consensus expectations vary with UBS Investment Bank expecting the policy rate to reach 1% by end of 2025 while Oxford Economics thinks Japan will take 3 years to get there.

Leasing and capital markets
APAC leasing activity was generally resilient in 1Q24. According to CBRE, office net absorption improved slightly YoY with stable demand from the finance sector and signs of recovery in the tech sector. Demand in the logistics sector was steady and rental growth stayed positive. The retail sector continued to benefit from resilient household consumption and improved occupancy costs.

In the capital markets, weak investor sentiment lingers, and transaction activity stayed muted in 1Q24. According to MSCI (see Figure 1), APAC volumes for the quarter slid further by 13% YoY. Australia (-26%) and Singapore (-56%) were key drags. South Korea (+81%) performed well albeit from a low base and its strong office sector continued to draw attention. Japan fell 15% in USD terms but grew 6% in JPY terms. It has been the only stable market in recent years. By sector, office (-23%) remains the worst performer while industrial was the best performer (+26%). Retail (-6%) has been on a steady recovery trend due to its robust tenant sales and relatively palatable yields.

Cap rates was stable in 1Q24 after expanding meaningfully last year. In 2023, the expansion was most pronounced in Australia where cap rates (retail, office and logistics) rose 50–120bps. This was followed by South Korea (20–60bps) and Singapore (20–63bps). Hong Kong's movement was more modest at 20–30bps due to a lack of transaction evidence. China cap rates rose 10–45bps despite falling interest rates. For Japan, 1Q24 signal was mixed with CBRE showing an increase while other data providers showed stable cap rates. For overall APAC, we see further upward pressure in 2024 but at a much smaller quantum. Transaction activity should start to improve, likely gradually, as we enter a rate cut cycle in late 2024 / early 2025.

Figure 1: Asia Pacific transaction volume (USD billion)



Source: MSCI, May 2024. **Past performance is not a guarantee for future results.**

Values emerging Down Under?

Signs of bottoming in Australia
Investor optimism seems to be returning to the Australia real estate market if the listed market is anything to go by. So far this year, Australia REITs (AREITs) have outperformed relative to both regional peers and its national stock index. Year-to-April, AREITs' share prices have increased 7%, trumping APAC REITs (Japan 0%, Singapore -12% and Hong Kong -25%) and S&P/ASX 200 (flat). While the index heavyweight Goodman Group (+25%) drove bulk of this outperformance, we note the underlying performance was still commendable (-1% excluding GMG) in the context of 50bps higher 10-year government bond yields. Is there finally light at the end of the tunnel?

In the unlisted market, investment activity remains relatively quiet. Australia's transaction volume was among the worst hit in 2023 (-50%) and stayed subdued in the first quarter of 2024. Nonetheless, the bid-ask spread is narrowing fast, and sellers are becoming more realistic with pricing. Australia cap rates expanded aggressively and rose the most in APAC. Since mid-2022, prime yields have risen 120bps for office, 170bps for industrial and 60bps for retail (see Figure 2). At these levels, more deals are starting to offer reasonable returns.

While further cap rate expansions are likely in the coming quarters, we think the worst of this correction cycle is likely behind us. We believe the second half would likely offer a better entry point. By sector, we think industrial offers the best risk-reward ratio with fundamentals still solid. Residential build-to-rent could continue to see tight cap rates given a strong rental outlook and investor interest. However, core assets are not readily available and likely to limit the pool of buyers. Retail in the right segment could potentially offer strong returns given improved occupancy costs. Retail sales are tracking at 20–30% above 2019 levels, significantly above rental increases since then and offer reversion potential.

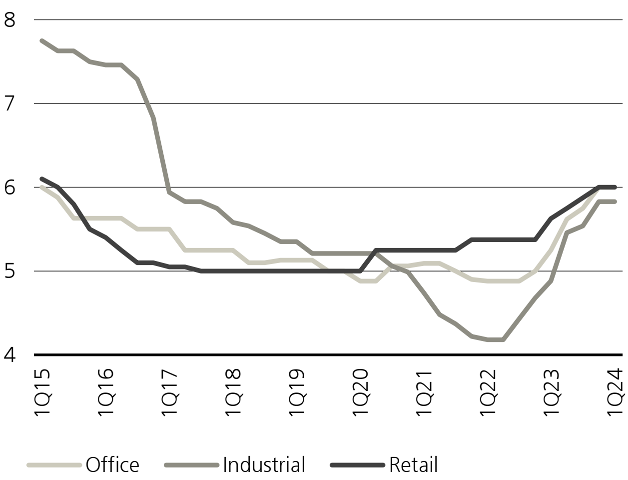
Office remains a challenging sector despite the sizeable correction thus far (-12% appraised valuations, -15% to -20% recent transactions). Stock picking is important given the market bifurcation. Among the big three cities, Brisbane is performing the best, followed by Sydney. Within Sydney, the flight-to-quality trend is keeping the best stocks desirable. In core CBD, premium grade valuation (-10% since mid-2022) was more resilient than the 30% decline for B grade assets, according to CBRE data. Singapore's Keppel REIT, for example, took a plunge at an A grade office in this location at mid-6% cap rate or 17% discount to peak valuation in 2022. Melbourne remains a tough market to underwrite given its record high incentive levels of 47% on the back of a low utilization rate.

Japan in transition
Japan has historically been a relatively easier market to underwrite due to its stability. Growth in the last few decades was uninspiring but its low and steady finance costs kept the market interesting. That dynamic is now changing as the country transitions into a new era with modest inflation and higher interest rates. It is not straight forward, but we think overall policy setting is likely to stay supportive. If successful, this environment could rekindle animal spirit and boost investment activity.

Mitsui Fudosan's recent announcement of reinvesting in growth under its new business strategies is a case in point. The plan includes recycling JPY 2 trillion (USD 13 billion) of real estate assets over the next three years. According to Bloomberg, more activist investors are participating in a push for Japanese companies to unlock values in their real estate holdings. All this could lead to improved liquidity for the market. After all, Japan's transaction volume only ranks fifth after the US, UK, Germany and China despite it being the second largest real estate market in size globally.

We continue to like the market but would be selective on real estate sectors that are able to deliver income growth in mitigation of potential cap rate pressure. Policy errors could be a risk and the weak JPY may be a trigger. The central bank's dovish stance remains at odds with the global higher-for-longer mantra. The authorities have a tough job to tread, a fine line between stabilizing the currency and seizing the golden opportunity to reinvigorate Japan.

Figure 2: Australia prime yields (%)



Source: CBRE; PMA; Oxford Economics, May 2024. **Past performance is not a guarantee for future results.**

US real estate

Cautiously optimistic

Improved performance on the horizon

> “Although one quarter does not make a trend, positive real estate returns in some sectors leaves us optimistic that improvement in 2024 remains on track.”
>
> **Tiffany B. Gherlone**
> Head of Real Estate Research & Strategy – US

Gaining optimism

After more than two years of adjusting to higher interest rates, private market real estate results were mixed during 1Q24 (see Figure 1), with value declines offset by income in several sectors. Returns for retail and industrial warehouse turned slightly positive. Self-storage returns were flat. Apartments and office buildings experienced negative total returns; though niche segments of the sectors, like medical office, manufactured and student housing outperformed.

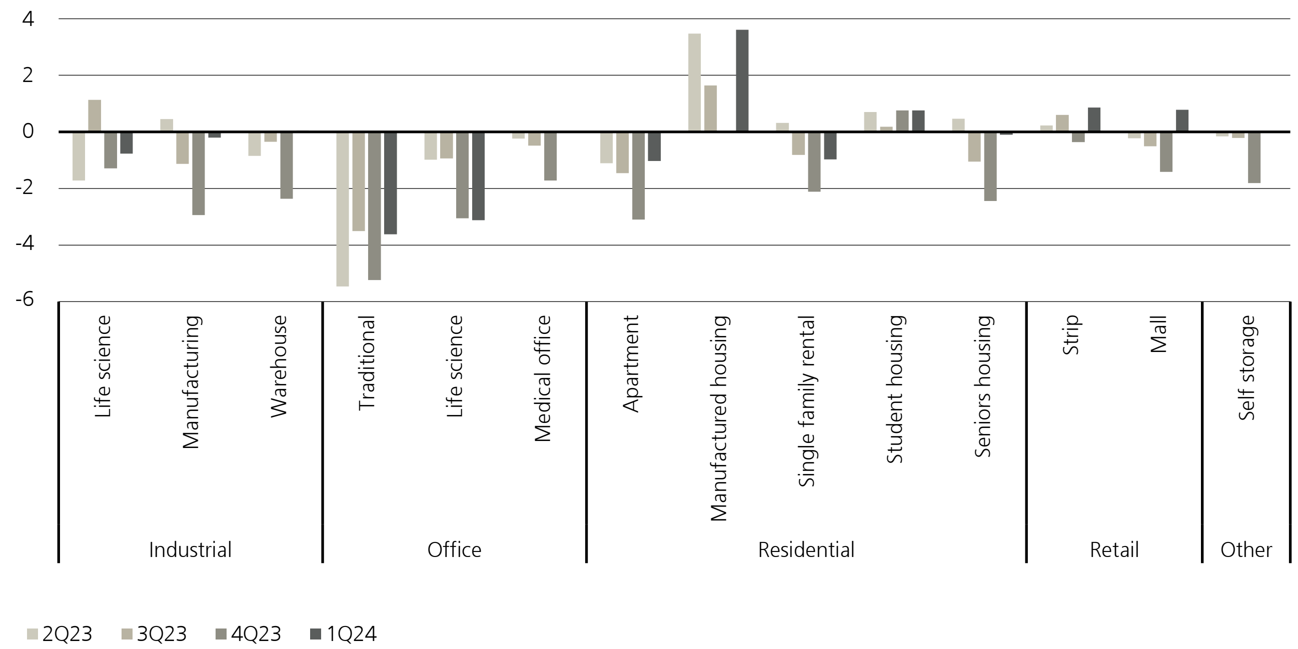
One quarter does not make a trend, and one-year total returns remain negative across most of the industry. However, even small positive returns mean our expectation for recovery begin later in the year – for all but the troubled office sector – remains intact.

Commercial real estate conditions will not improve materially until transaction volume increases, creating comparable sales and pricing confidence. During 1Q24, transaction volume was USD 78 billion, well-below average and 16% lower than 1Q23. Facing uncertainty in portions of their existing loan portfolios, lenders remain reluctant to accelerate the pace of new originations. Property owners can resist the discounted prices demanded by buyers as net operating income continues to grow across most sectors.

However, buyers face the daunting task of assembling capital in a higher interest rate environment. After reaching a peak near 5% in October 2023, 10-year Treasury rates are near 4.5%, signaling that market conditions may be improving. While the timing of rate decreases is uncertain, recent commentary from the Fed raises investor confidence that they are likely done raising interest rates.

Downturns are rare in private commercial real estate. Since NCREIF began in 1978, total returns were positive about 90% of the time. Periods of depreciation are difficult, but repricing and reduced buyer pools create opportunities for investors willing to accept more risk today for higher reward during recovery. Sectors with the highest rent growth and lowest capex burdens, like industrial, residential and self-storage, should continue to attract increased buyer interest, especially if expectations for a soft landing in the economy come to fruition. Current market dislocation offers a rare opportunity to improve portfolio diversification by adding niche property sectors at a discount to historical pricing.

Figure 1: Appraisal-based total NPI- Plus returns (%)



Source: NCREIF Property Index, as of March 2024. **Past performance is not a guarantee for future results.**

Primary sectors

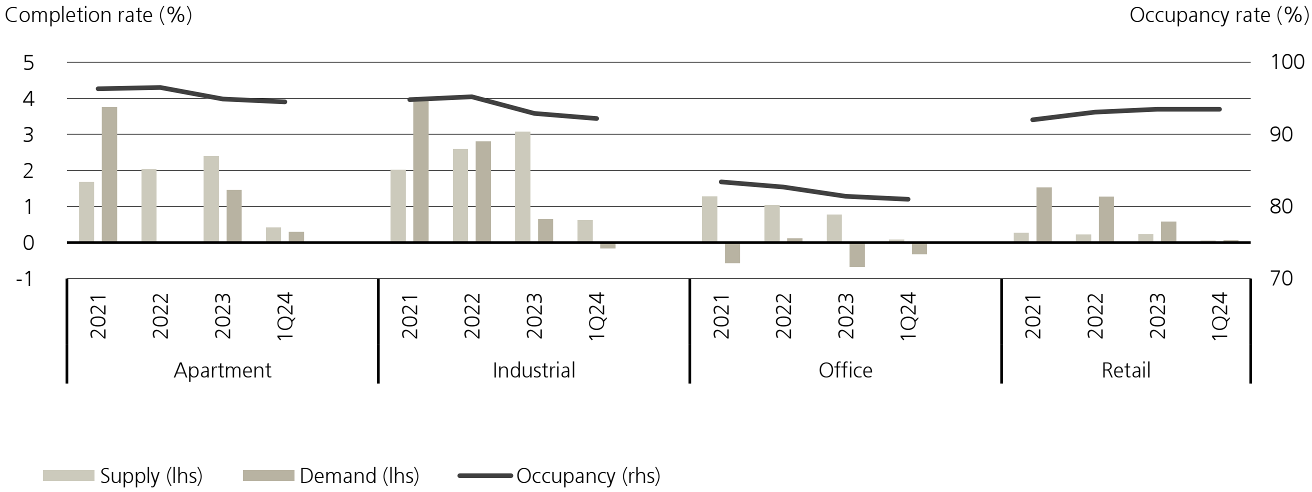
Apartment
Apartment demand reached higher-than-average levels in 1Q24 but still fell short of the amount of supply delivered during the quarter (see Figure 2). Apartment demand was 33.4% above its five-year historical first-quarter average, but even higher supply drove occupancy rates lower. Occupancy fell 10bps over the quarter and 60bps over the year to 94.5%. Apartment rent remained unchanged over the quarter but increased marginally by 0.4% YoY. Transaction volumes remained 25.3 % below 1Q23 levels, as capital market volatility continued to weigh on activity. The apartment sector delivered an annual total unlevered return of -6.5% in the year ending 1Q24 with negative, but less severe capital returns dragging performance.

Industrial
Industrial fundamentals continued to soften in 1Q24, even as rents grew at a solid pace. Tenant demand turned negative for the first time in fourteen years, as sustained economic uncertainties discouraged occupants from expanding their footprint. New deliveries stayed elevated and pushed the availability rate up by 70bps over the quarter and 230bps over the year to 7.8%. Despite weakening market fundamentals, industrial rents still rose by 4.9% YoY. Transaction volumes remained slow during the quarter, down 20.2% from a year ago. The sector's total unlevered return turned moderately positive in 1Q24, as income return offset capital depreciation. However, over the trailing four quarters, total annual return was -3.2%.

Office
Office sector fundamentals remained challenged in 1Q24 due to ongoing occupancy losses. Net absorption experienced a sharp decline during the quarter, as occupiers continued to downsize their office footprint. Completions slowed to the lowest quarterly level in over a decade and were 59.7% below its five-year historical first-quarter average. Office occupancy fell by 40bps over the quarter to 81.0%, marking the lowest rate in nearly 32 years. Ongoing capital market challenges and work-from-home headwinds weighed on transaction activity, which was 27.5% below 1Q23 levels. The office sector delivered an annual total unlevered return of -16.7% in the year ending 1Q24, a slight improvement from last quarter's performance.

Retail
Retail fundamentals continued its steady streak in 1Q24. Solid demand for retail space, combined with minimal new development, kept occupancy at a record high. Occupancy remained unchanged over the quarter at 93.5% in 1Q24 and was 30bps higher than a year ago. Transaction volumes were 14.3% below 1Q23 levels, as high borrowing costs continued to drive sluggish activity. Retail total return turned positive during the quarter, with income return outweighing moderate value declines. However, over the trailing four quarters, total annual return was -0.7%.

Figure 2: Sector fundamentals



Source: CBRE-EA, as of March 2024, Apartment Occupancy is Real Page, as of March 2024. 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.**

Selected niche sectors – mixed performance

Self-storage[1]
Self-storage fundamentals remained stagnant during 1Q24 compared to the previous two quarters. The primary driver of rent growth is currently existing customers, as move-in rents declined 15% YoY. Same-store occupancy for Public Storage (PSA), a self-storage REIT, was 92.1% in 1Q24, down 80bps from a year ago.

First quarter results for CubeSmart and Extra Space tell a similar story as occupancy levels have returned to pre-COVID-19 levels. Overall, rents for PSA grew by 0.8% after existing customer rate increases. The economic backdrop leaves self-storage in a tight spot as existing customers will likely be less able to absorb rent increases and interest rates remaining elevated dampens mobility and home sales. Supply remains the greatest headwind for the sector, but elevated construction costs, supply chain bottlenecks and labor shortages continue to push back the incoming pipeline.

Cold storage[2]
Cold storage net operating income (NOI) growth continued its solid performance in 1Q24. Americold, a global cold storage REIT that holds 86% of its inventory in the US, reported a 10.1% YoY growth in NOI. This performance was helped by a moderate 0.8% YoY growth in revenues combined with a 3.5% YoY decline in expenses.

Economic occupancy declined by 350bps YoY to 80.9% due to unusually high production in 2023 leading to comparatively lower results this quarter. Throughput volume remained low, down 760bps YoY, while consumer demand held steady. Food consumption indexes turned positive in 4Q23 for the first time since 2022 and grew at a faster rate during 1Q24.

Senior housing[3]
The senior housing sector – defined as the combination of the majority independent living and assisted living property types – continued to make positive gains in 1Q24. Occupancy rates in primary markets rose by 50bps to 85.6%, marking the eleventh consecutive quarter of occupancy increases. Occupancy is now only 150bps below pre-pandemic levels.

Solid demand combined with muted inventory growth helped drive occupancy gains. Quarterly net absorption was 0.7% of total inventory, outpacing new deliveries at just 0.3%. Occupancy rates are expected to make a full recovery back to pre-pandemic levels by the end of 2024.

Life sciences[4]
Life sciences fundamentals continued to soften in 1Q24, despite improvements in capital funding. Vacancy rose by 1.7% over the quarter to 14.8%, due to a 2.0% increase in supply and a 0.3% decrease in absorption.

Despite a slowdown in market fundamentals, capital funding saw some improvement during the quarter. Venture capital (VC) funding, a major driver of demand, increased above quarterly levels seen in 2019. Even as capital funding picks up again, the sector still faces an elevated supply pipeline ahead, with 26.9 million square feet or 13.4% of stock currently under construction. We expect the supply pipeline to weigh on market fundamentals over the near term.

Source: **1** GreenStreet, as of October 2023; **2** Americold Company Report, as of 3Q23; **3** NIC Map, as of October 2023; **4** CBRE, as of October 2023.

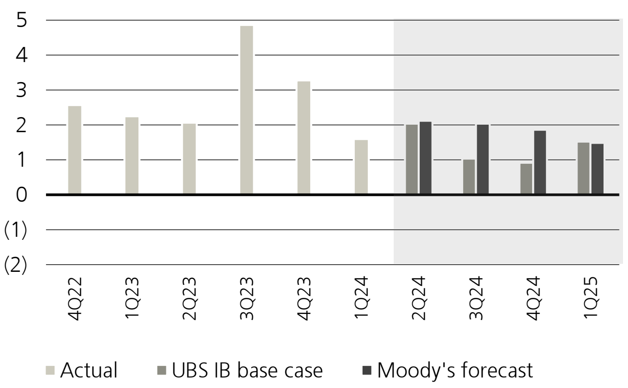
Nearing the end

Economic viewpoint

The US economy slowed during the first quarter of the year. Real GDP growth moderated to an annualized rate of 1.6% during 1Q24, below consensus forecasts of 2.5%. Consumer spending, the main driver of growth last year, came in slightly below consensus but contributed nearly 1.7% to first quarter GDP growth.

Net exports were a 0.9% drag on the first quarter GDP figure, but this was due to an increase in imports, a good sign for domestic demand. Fixed investment grew but was helped by an unsustainable 14% increase in residential investments. State and local government spending slowed as fiscal support for growth began to wane. Expectations for the second half of 2024 vary (see Figure 3), but a soft landing is becoming consensus.

Figure 3: Real GDP quarterly annualized forecast (%)



Source: Actual Moody's Analytics, as of 8 April 2024; UBS Investment Bank forecast, as of 6 May 2024. Note: Shaded area indicates forecast data. **Past / expected performance is not a guarantee for future results.**

Nonfarm payroll employment posted a 175,000 increase in April, below consensus and lower than the average monthly gains of 251,000 in 2023. The unemployment rate increased slightly to 3.9% and wage growth rose by just 0.2%.

Notable weakness was seen in professional and business services, which declined by 4,000. This reduction was primarily due to a 16,000-job decline in temporary workers, a segment which typically sees the first job cuts. Employment in the services sectors increased by 153,000, led by 95,000 gains in the health and education sector.

The Fed has signaled that they plan on cutting interest rates this year but emphasizes the need for data dependence in future rate cuts. The Fed has also cited a lack of confidence that inflation is maintaining a path towards their 2% target due to the most recent data coming in hotter than expected. In March, the US economy recorded a 2.8% YoY increase in the Fed's preferred inflation metric, the personal-consumption expenditures index which excludes food and energy. As a result, consensus forecasts have postponed expectations of rate cuts from the first half of the year to the second. All else equal, the impact of lower interest rates will improve values, as the cost of borrowing becomes less expensive.

Expectations between economists for the remainder of 2024 became muddied from the stickiness of inflation, the resiliency of job numbers and consumers, and comments from the Fed citing a lack of confidence in curbing inflation. While this led to speculative headlines, such as potential rate hikes, our view is that current rates are sufficiently restrictive.

As a result, we expect growth to continue to moderate in 2024, leading to rate cuts during the September and December meetings. Further rate cuts are anticipated in 2025, followed by renewed growth. Our base case is for GDP to increase by 2.0% during 2Q24 before slowing significantly during the second half of the year. Growth is expected to rebound in 2025, as the Fed would lower interest rates. In this soft-landing scenario, investors should benefit from the durability of income in real estate and stabilization of prices in 2024, followed by a return to growth in 2025.

Sustainability

Quantifying climate risk

Quantifying carbon and climate risk

"If you are concerned about capital values, rents, returns and income, you have to take into account sustainable investing because it is impacting values and future cash flows. Regardless of your philosophical stance, sustainable investing is a question of financials and most institutional investors I know aren't ignoring financials!"

Olivia Muir
Head of Sustainability, Real Estate & Private Markets

Global undersupply of green assets creates intriguing opportunity for real estate investors

While reducing carbon emissions is a crucial aspect of ESG, what are other important factors to consider for real estate investors?
Many of the issues we are tackling ultimately come back to carbon. Loss of biodiversity, for example, is an increasingly important topic for real estate investors to consider. But if we didn't have the massive carbon emissions problem we have and the resulting global warming, we probably wouldn't be seeing this scale of habitat and biodiversity loss.

Another important factor to consider in the near term is physical risk. This is not a new issue, but it is becoming more important not just to measure, which most people are doing now, but also to act to mitigate that physical risk where it can be mitigated, and to reconsider exposure, where it cannot be mitigated. Climate resilience and adaptation will also be an important issue, which the industry is not really talking about at the moment.

As the Migration Policy Institute (MPI) highlights, millions of people are already being forced to relocate due to natural disasters and climate change. But from an institutional real estate perspective, we don't seem to be talking about that adaptation. The climate is clearly changing, and we're not going to manage to stop that despite the massive mitigation efforts now starting and the consequence of that is relocation, the need for resilience and the need to adapt.

We must continue to focus on emissions without question, but we also need to prepare for a warming world. Crucially, that hasn't really started playing out in economics in some markets, but it will play out sooner or later, which adds a social angle.

Would you say there's been any improvement in the past five years in tools to measure the social aspect of ESG? Or is it still more anecdotal?
There has been progress, and there are more companies and teams (within existing environmental or sustainability consultants) that are focused on the social aspect. But, still, the metrics are difficult to define and measure. So, while there has been progress, the social aspects are still a long way behind the environmental factors because of that challenge around measurement and verification, in particular.

Are niche real estate subsectors emerging within sustainable strategies?
There are niche subsectors that are focused on sustainability, but they are swiftly becoming less niche. Life sciences is one example. It has been a subsector in the US for years, but in Europe, it is a relatively new asset class. That will change quite quickly, as the sector becomes better known and understood, and the fact that it is quite established in the US will translate over to Europe quickly.

Another strategy focused on sustainability that might be considered niche right now in real estate involves a *brown-to-green* transition, and we are seeing lots of funds coming to market now with this green-renovation focus. Additionally, social-impact plays, including residential or even retail, are coming to the market. The assets aren't necessarily niche, but the focus on a sustainability or social problem is.

They're taking that problem, whether it be high-emission offices in need of a brown-to-green transition, or an empty high street in the heart of UK towns, and they are looking to build a financially profitable and environmentally or socially additive solution to that problem. That's not niche; that's just business. Investors might need some time and education to understand that strategy versus a core balanced fund, but these strategies are here to stay. With so much of the office stock in such urgent need of upgrade during the next few decades, for example, I don't think that can be considered niche for any time at all. But that is how they are often being categorized at the moment.

How is environmental risk calculated into your portfolios?
Quantifying climate risk into a single financial number is fraught with challenges. A number of third parties have been offering that kind of tool in the past few years, but in practice, at least based on what we've seen, that number, that climate value at risk or climate estimated loss, is always going to be inaccurate because of the many assumptions that go into it and the many unknowns. A number of regulations are starting to require that number, which does put some pressure on the industry to make sure those approaches can be made more accurate.

But for now, we've not found a solution that adequately or accurately quantifies that risk in a dollar or percentage term. Consequently, we are building it into our process in other quantitative ways across multiple environmental risk metrics, but not in that simple dollar term.

Ultimately, the key thing is always to ensure your decision makers are informed of the risk profile of whatever they're looking at, because that's been the problem historically, that it simply either was completely missing or was very qualitative and not useful in the decision process. That's our immediate goal: to make the climate-risk information *decision useful*, to make sure it is informing the decision makers in the not-too-distant future with that accurate dollar value, which then truly can build into the financial modeling and cash flows.

One of the other things we're looking at is the application of some sort of carbon tax or carbon penalty in underwriting and, then, in future cash flows. It's a far-from-perfect tool, but it is one of the ways you can quantify risk and ensure it hits that bottom line in the forecasted return for investments and portfolios. Decision makers are still very focused on that ultimate projected IRR, so as soon as you can get climate risk into that in a sensible way, it starts to influence the decision making. But getting that dollar number is challenging, as I've said, and if decision makers have a quantitative single climate risk metric that is inaccurate because of missing items and incorrect assumptions, it's almost more dangerous that decision makers think they are informed when they might not be.

In terms of how we would price such a carbon tax or penalty, the voluntary carbon market is new, untested and challenged. But there are not many alternatives at the moment, so it's as good a place as any to start. We are running scenario analyses on today's carbon price as x, but in the future, the best estimates are that it will be eight times that. We should be looking at that over the hold period, considering the carbon price going up eightfold in the future and informing today's decisions accordingly.

What are the most important factors in ESG measurement?
In ESG measurement, it comes down to data and the accuracy of that data. It's as simple as that. Data was a big focus for us in 2023, and it's still our main focus for 2024, because data is the foundation to everything we're doing. If we have incorrect or incomplete data, then everything we build based on that data could be a waste of time and a waste of money. Getting the data and making sure it's accurate is everything if you want to measure anything in ESG.

Net-zero carbon emissions is top of most investors' minds globally, and transition-pathway planning is on every real estate sustainability team's plate. Let's say a building has a recommendation for LED lighting or a boiler change. If the data in that plan is incorrect, all of those recommendations could be incorrect. And then you start down a path changing your lights, but you get into the building and realize they're all LED already. Or the boiler was just changed last year. You have to have the right data to build on; you need a solid foundation or else the whole thing will fall down around you, sooner or later.

What should investors pay attention to specifically in the office sector, as the future of work post-COVID-19 evolves and green refurbishment costs become necessary?
The office sector right now is a little scary, in my opinion. Last year, we saw repricing globally in offices, and we expect capital values to bottom out fully this year. In some parts of the office sector, though, I think there is still more distress to come from a pricing perspective. Refinancing is coming due. Leases are expiring and, on top of that, you have the refurbishment costs associated with making these buildings attractive and green places for employees to return to work and, thus, tenants to demand space.

Properties that aren't green are at risk of becoming illegal to transact or uninsurable or unleasable, as climate risk for insurers increases and regulations in different countries evolve. The necessity of incurring those refurbishment costs just to enable assets to be leased or to give them a good commercial chance of attracting a tenant or future buyer is new in the past few years. So this represents a new challenge for the market that already has so many challenges.

And those refurbishment costs, in general, are still massively underestimated, in my opinion, leaving a liability that a lot of groups aren't fully pricing. When you have a fund that says it will be net zero by 2050, you have to determine whether they have done the work to actually understand what liability that is putting over their balance sheet for the next 26 years.

Becoming net zero means ensuring maximized energy efficiency, minimized energy demand or procuring renewable supply, which may require putting renewables on site or procuring off site, and finally, offsetting anything that's left. That is a huge cost that will be incurred to do all those things. Have they actually assessed the price of that? Have they put that in their future cash flows, in their balance sheets? Some groups have done that, but many have not, and that is yet another thorn in the office sector's side right now.

Can institutional investors ignore sustainable investing?

No, not if they want to fulfill what most institutional investors have as their primary fiduciary duty, which is to deliver risk-adjusted financial returns for their clients. You have to consider sustainability because it is impacting values and future cash flows. If you are concerned about capital values, rents, returns and income, you have to take into account sustainable investing. Regardless of your philosophical stance it is a question of financials, and most institutional investors I know aren't ignoring financials!

Is there still a green premium in property? Will a green premium deliver higher returns?

What we call a *green premium* or a brown discount is, fundamentally, pricing reflecting the sustainability characteristics of a building. And so, yes, the pricing should, does and will continue to differ between green vs. brown. I don't see that changing because of the fundamentally different future cash flows of those two types of assets. The upcoming regulation will hit all sectors, and the tenants who have made net-zero commitments are across all sectors and those are two big drivers that I believe will support this trend, these differentiated cash flows, and prices between brown and green.

Fundamentally, though, right now there is a massive undersupply of so-called green assets. Demand is going one way, so that undersupply, that mismatch, is only going to get more extreme. That is the huge opportunity the market has right now and we as investors, our clients and our competitors have today. We know tenants want green buildings for the potential for better employee performance and staff retention, and for net-zero commitments some of them have made publicly. And we know regulators are tightening the screws in terms of minimum standards.

We see that in New York and London very clearly. We know future buyers will want green assets. All of those factors and all the important stakeholders are pushing in the same direction, while supply is actually shrinking because every year the standards tighten. And if you have that sort of supply/demand dynamic in any market, it only means one thing for prices.

Infrastructure debt

In a sweet spot for 2024

A positive macro for infrastructure debt

"Infrastructure debt investors will be able to find more opportunities with attractive risk-adjusted returns in 2024, taking advantage of the still elevated base rates and improving credit fundamentals."

Alex Leung

Head of Research & Strategy, Infrastructure

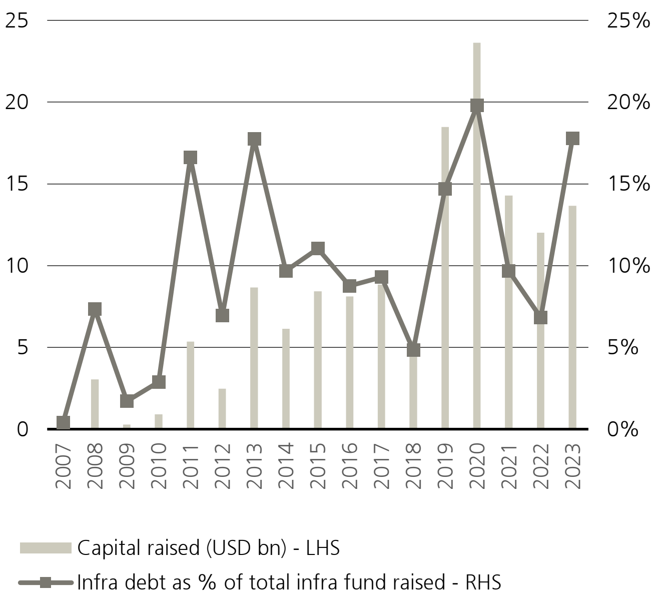
Infrastructure debt in a sweet spot for 2024

Infrastructure debt markets
Private infrastructure had a challenging 2023. After a record fundraising year in 2022, overall funds raised in 2023 fell by over 50%.

However, across all infrastructure strategies, the environment for infrastructure debt has been relatively positive. Rising rates increased the relative attractiveness of infrastructure debt (especially high yield) compared to core infrastructure equity investments, which has not seen significant changes in returns.

Infrastructure debt fundraising grew slightly in 2023, accounting for almost 20% of all infrastructure funds raised (see Figure 1). This is not surprising, given an Infrastructure Investor survey from the beginning of 2023 already highlighted infrastructure debt as the most in-demand infrastructure strategy.

Figure 1: Infrastructure debt fundraising



Source: Inframation, January 2024.

Inflation and the higher cost of debt continue to impact transaction volumes, as borrowers reduce their financing needs. Sponsors can no longer rely on cheap debt to fuel aggressive growth plans and are adjusting their capex to adapt to this new reality, while focusing on optimizing their capital structures across both senior and junior debt.

A positive macro backdrop
Looking at the macroeconomic environment, as inflationary pressures continue to subside, central banks will have more room to start cutting interest rates.

The US Federal Reserve signaled at the end of 2023 that they are looking to cut rate 3 times in 2024. Although hotter than expected inflation so far this year may have tampered those expectations, the general direction of travel is clear, even if rates stay higher for longer.

In Europe, inflation has actually been coming in lower than expectations compared to 6 months ago. Switzerland surprised the markets by being the first major economy to cut rates in 2024, and other European countries should follow. This should bring some relief to those concerned about potential financial distress.

Despite the economic volatility in the past 2 years, infrastructure fundamentals actually remain strong, due to a robust post-pandemic recovery, strong inflation passthrough, policy support, and the fact that most infrastructure investments are unique assets that provide essential services and have pricing power.

Looking at consensus estimates of over 100 listed infrastructure companies as proxy, 2023–2025 revenue estimates have been revised upward by an average of ~15% in the last two years. The risk of further financial distress and defaults in a stabilizing macroeconomic environment is unlikely since fundamentals have held up.

Activity to pick up in 2024
Looking into 2024, as inflation and interest rates have peaked, we could potentially see a recovery in lending activity, especially for borrowers who have delayed their financing plans, as well as increased financing needs as M&A activity picks up again.

As previously discussed, infrastructure fundamentals remain strong, which means transaction volumes should recover now that risks from this new normal is better understood (akin to the post-COVID-19 recovery).

In our view, infrastructure debt now sits in a sweet spot. The stabilization and gradual decrease in interest rates will incentivize investors to move away from cash and into private markets, while locking in the still relatively high base rates.

The slowdown of redemptions from insurance companies and the subsiding denominator effect due to recovery in equity markets mean there will be more appetite for infrastructure debt from investors in 2024

Infrastructure debt investors will be able to find more opportunities with attractive risk-adjusted returns in 2024, taking advantage of the still elevated base rates and improving credit fundamentals.

Secular themes for infrastructure debt

The infrastructure sector continues to benefit from secular tailwinds such as the 4 Ds – decarbonization, digitalization, deglobalization, and demographic change. Infrastructure debt is in a unique position to take advantage of these long-term investment themes. We will further discuss three of these secular themes below.

Decarbonization

The world's efforts to decarbonize have created one of the largest investment opportunities in a generation. Traditional renewables such as wind and solar will continue to offer the most investment opportunities. However, other green investments opportunities will also grow, including transportation, biofuels, hydrogen, carbon capture (CCUS)[1]. Infrastructure debt investors are particularly well positioned as they can find opportunities that can mitigate some of the downside risks associated with new energy transition technologies and business models.

Digitalization

The COVID-19 pandemic accelerated the adoption of remote work, education and healthcare with the popularization of HD video conferencing. The continued roll out of 5G, AI and internet-of-things (IoT) will increase demand for digital infrastructure. For infrastructure debt investors, digital infrastructure including towers, fiber and data centers are all attractive investments, given the demand for storage and transmission of data. Debt financing has become an important source to fund the growth of these platforms.

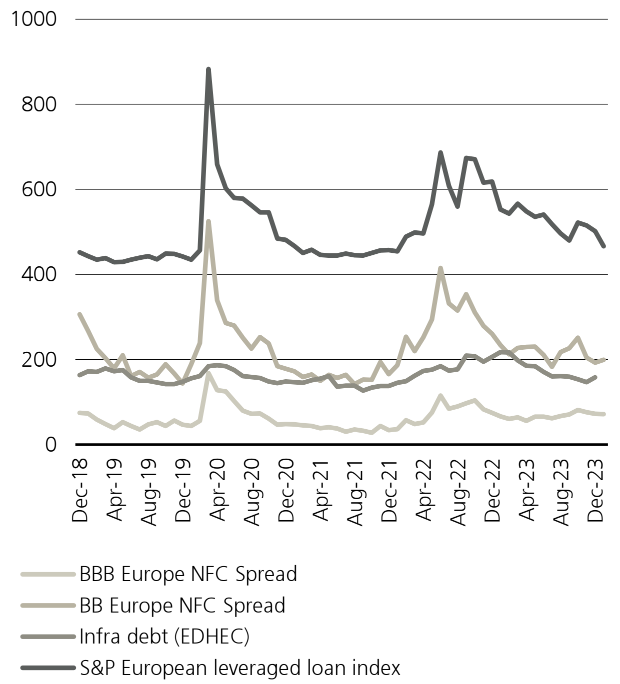
Deglobalization

Supply chain disruptions from the pandemic and geopolitical tension have made onshoring a necessity, with government policies such as the IRA driving hundreds of billions in domestic manufacturing investments. Large companies simply will not commit billions of dollars to build a new plant, without certainty around energy supply, transportation networks, utility services, and high-speed internet. Thus, deglobalization is a positive support for all infrastructure investments.

Pathways to success in 2024

Infrastructure debt has historically been a lower risk way to gain exposure to the infrastructure, as it offers a premium over corporate bonds while providing good downside protection and lower capital charges (for insurance companies under Solvency II). For example, credit spreads for European infrastructure debt remains much closer than corporate high yield than corporate investment grade bonds in 2023 (see Figure 2).

Figure 2: Private infrastructure debt spread (bps)



Source: Bloomberg; EDHEC Debt Indices (Europe); UBS Asset Management, April 2024.

Although the macro environment in 2024 is positive for infrastructure debt, there are still many factors to consider, to differentiate and create the most value, especially when looking to deliver extra premium versus fixed income or other alternatives. For example:

- Proprietary origination is an important lever to uncover value, as it is difficult to find attractive risk-adjusted returns in private placements or syndicated deals

- Mid-market segment continues to be less crowded with ability to secure off-market deals and realize "structuring premium"

- Although recent commitments have mainly been concentrated towards a few large manager (flight to quantity), smaller managers can often offer better value proposition thanks to a larger number of transactions in the midmarket space, allowing them to be more selective, as well as a greater focus on bilateral transactions and bespoke structuring

- Having a robust but pragmatic ESG framework with measurable KPIs would be an important differentiator in an industry that is increasingly focused on sustainability

[1] Refer to our *Future Green Investments paper* for details

Decarbonizing transportation

> "Overall emissions from transports are still growing… the decarbonization of transport benefits from converging tailwinds: falling technology costs, supportive policies and stakeholder pressure to reduce emissions."
>
> **Alex Leung**
> Head of Research & Strategy, Infrastructure

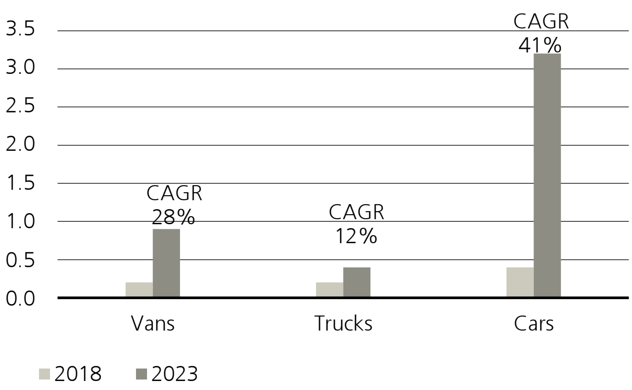
The diverging paths of transport decarbonization

The transport sector, often classified as a hard-to-abate segment, consists of surface, sea and air sub-sectors. In our paper published in 2023, we highlighted that the sector accounts for 14% of global GHG emissions and 20%+ of global CO2 emissions[1].

Overall emissions are still growing and the sub-sectors are decarbonizing at different paces, and since 2010, the sector's emissions have increased faster than for any other end-use sector, averaging +1.8% annual growth[2], highlighting the need for urgent investment. The decarbonization of transport benefits from converging tailwinds: falling technology costs, supportive policies and stakeholder pressure to reduce emissions.

Surface transport
Surface accounts for ~70% of transport emissions, within which, the passenger segment makes up ~45%while freight accounts for ~29%. The transition to zero emissions vehicles in the personal autos space is well underway with BEV reaching 11.1% of global sales in. BEV sales in the commercial vehicles segment are less than 3%globally, and as of 2023, almost all of the fleet is powered by diesel powered ICE vehicles (see Figure 1)

Figure 1: Share of EV in total vehicles stock (%)



Source: IEA, April 2024.

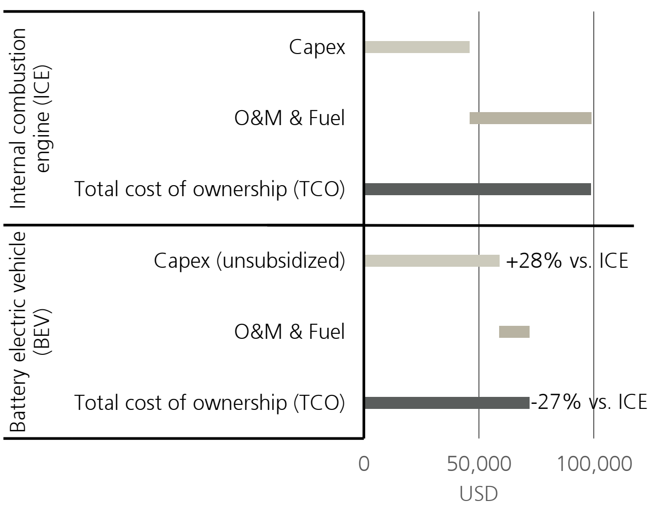
This trend is driven by supportive public policies, changing consumer preferences and the improvement in the total cost of ownership (TCO) – a metric which looks at the cost of the electric vehicle, including fuel and maintenance over the useful life of the asset. This is driven by falling battery costs of 90% over the past decade.[3]

The electric take-up is lower for commercial applications, with vans and trucks representing less than 3% of electric sales.

Given that freight makes up 30% of transport CO_2 emissions, this represents a significant opportunity for investors looking at accelerating the transition to zero emission transportation. We expect battery electric vehicles to be dominant for road transport except for long-distance trucks where a clear technology winner has not yet emerged.

Figure 2 shows that despite the higher upfront capex of commercial Battery Electric Vehicles (BEVs), the combination of fuel savings and lower maintenance cost can deliver a significantly lower total cost of ownership (TCO). In the case of a last mile delivery van, we estimate a ~27% saving in the US and a 30-40% saving in Europe.

Figure 2: Light duty vehicle sample TCO comparison[4]



Source: UBS Asset Management, OEM catalogue, EIA, Transport & Environment, September 2023.

BEVs require new infrastructure to deliver the fuel, i.e., the charging stations. Closed-loop applications are low hanging applications for electrification as charging can be centralized at the base, allowing lower capex, higher utilization and removing the dependence of public charging infrastructure.

Aside from BEVs, hydrogen fuel cell electric vehicles (FCEVs) have zero tailpipe emissions, and have a number of advantages over BEVs, such as shorter charging times and less impact on weight. Most importantly, FCEVs have longer ranges, which makes them more suitable for commercial vehicles that are typically driven over greater distances and for longer periods of time per day.
As discussed in the previous section, green hydrogen is produced through electrolysis using renewable electricity and can be used as a source of fuel for FCEVs.

However, currently, the cost of hydrogen and the cost of the fuel cell are prohibitive compared to diesel and BEVs. Nevertheless, we expect to see hydrogen take up where the users' purchase decisions are driven by factors other than cost, such as the range, time to recharge or weight considerations. Some practical examples where hydrogen may offer a solution are standby assets eg, emergency response vehicles, highly seasonal farming or municipal equipment, or back up range extenders.

Marine

The decarbonization pathway of the marine sector is set by the International Maritime Organization (IMO) regulation which targets a reduction of 40% by 2030, pursuing efforts towards 70% by 2050 versus 2008 levels.

Of the ~1 billion tons of CO_2 annual emissions from the marine sector, short-haul vessels make up ~13%, the rest can be attributed to long haul (primarily ocean going) vessels (see Figure 3).

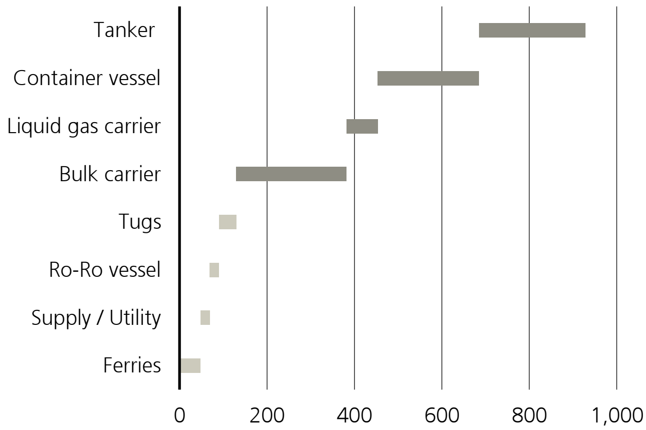
From a technological perspective, there is no clear consensus on the winning technologies, with market leaders opting for different solutions, headed by Maersk that seems to be betting on E-methanol. This gives investors less certainty and increases stranded asset risk.

Methanol is controversial as it is still a carbon-based fuel and so there is much debate on whether it should be considered green. A potential alternative is ammonia, which does not contain carbon and could be combusted in an internal combustion engine.
However, to date, there is no commercially available engine technology that can burn ammonia. The main challenge with ammonia is its high toxicity, creating high safety requirements.

Electrification is another pathway for decarbonizing the marine sector. However, electrification is not suitable for long-haul shipping, and to date, the batteries being commercially deployed onto vessels are all less than 10 MWh. The use of larger batteries is limited by cooling requirements and volume restrictions of the hull.
Near shore vessels such as tugboats and utility vessels could be better candidates for electrification. Some jurisdictions (eg, California, Rotterdam, Antwerp, Singapore, Auckland) have introduced laws requiring electrification of tugboats since they are typically a major source of local pollution.

One clearer short-term opportunity is for port infrastructure. For example, ports generate 6–7% of the total maritime emissions and could invest in commercially proven technology applications such as onshore power (OSP) and through the electrification of port equipment.

Figure 3: CO_2 equivalent emissions in marine segment, 2022 (Mt)



Source: BCG, 2022.

Aviation

The air sector contributes a similar share of emissions as marine, albeit it has been growing at a faster pace. There are limited options to decarbonize airplanes, as the weight and range of batteries make moving to electric power challenging while the low energy density of hydrogen creates space limitations.

Sustainable aviation fuel (SAF) is the only credible option to decarbonize air at scale. At present, SAF makes up around 0.1% of aviation fuel demand and it costs 35 times more than jet fuel. Upstream production of SAF needs to be scaled up to meet vast demand aligned with strong policy measures contained in the ReFuelEU Aviation (part of RePowerEU policy).

The US IRA, which provides a SAF subsidy of up to USD 1.75/gal, could also support the industry. Like many other energy transition technologies, we are also seeing large corporate offtakers (eg, United Airlines is the largest SAF buyer in the world) who are willing to pay a premium for SAF due to its environmental attributes.

A more immediate opportunity in the air sector is the decarbonization of ground service equipment (GSE) at airports. Although some of this is already electric (eg, baggage tractors), there are opportunities to further reduce emissions through the adoption of fixed electric ground power (FEGP) and the electrification of other GSE such as push-back tractors for certain planes.

[1] *Future Green Investments paper.*
[2] IPCC AR6 WGIII, Chapter 10, November 2021.
[3] Lazard's Levelized Cost of Energy Analysis 16.0.
[4] Example for Mercedes Sprinter van.

Food & Agriculture

Start with the farmer

From farm to fork

"Farmers worldwide have an important role in implementing more sustainable farming practices as well as enhancing the efficiency of both food production and supply chain resiliency."

Manisha Bicchieri
Sustainability and Research Analyst, Food & Agriculture

California farmers lead the way in sustainable agriculture while navigating water infrastructure limitations

The entire food value chain, from farm to fork, is often a major contributor to a country's gross domestic product (GDP), with the US Department of Agriculture stating that agriculture, food and their related industries contributed approximately 5.5 percent or USD 1,264 trillion to the US GDP in 2021. Food, specifically food prices, typically have a bigger impact on a country's economy than this figure suggests, as food prices tend to be a disproportionate contributor to inflation, especially in developing countries.

With half of the earth's habitable land in agriculture production and nearly 1 billion people working in the agricultural industry, food and agribusiness form a USD 5 trillion global industry.[1] Farmers worldwide have an important role in implementing more sustainable farming practices as well as enhancing the efficiency of both food production and supply chain resiliency. In many ways, US farmers have taken the lead and are setting the standard, while at the same time maintaining their position as the largest agriculture exporter in the world.[2]

Sustainable farming in practice

As a founding member of Leading Harvest, UBS is actively supporting US farmers across a multitude of regions and crop types to promote economical and sustainable farming practices. Leading Harvest is a nonprofit organization working to standardize sustainability measures and scale best practices in sustainable agriculture through their assurance program, the Leading Harvest Farmland Management Standard.

The Standard is outcomes-based and addresses economic, environmental (eg, soil health and water efficiency), social (eg, public health and local communities) and governance (eg, legal and regulatory compliance) matters through farm management. Leading Harvest recognizes that agriculture can be part of the solution and that alignment across the food value chain will allow farmers to demonstrate sustainability outcomes and unlock value at a global scale.

The Standard, which was initially developed for the US farming sector, has successfully been adapted for Australia and continues to evolve across geographies.

Responsible water use in California agriculture

More than ever, farmers today have an important role in furthering sustainability through the continued implementation and innovation of best farming practices. California agriculture is an example where sustainability, specifically through water management, is both environmentally and economically beneficial. More efficient water delivery and irrigation systems have improved crop yields and quality, reduced water applied per acre and positively affected water quality. In fact, California farmers' water use has been declining since 1980, while the value of agricultural production has increased.[3]

Though California farmers have implemented more sustainable water practices, they are still affected by natural periods of drought and flood, which are increasing in intensity, duration and frequency. This highly variable precipitation poses both challenges and opportunities for the state's agricultural production, which provides over one-third of the US' vegetables and almost three-quarters of the nation's fruits and nuts.[4] Thus, as a food security asset of the US, it is imperative to invest in and implement better water management strategies including the conservation, storage and diversification of water supplies to sustain California's agricultural production.

California droughts occur in drier years when there is less snowpack and precipitation. Water storage impacts the length and severity of droughts as supplies in surface water reservoirs are depleted and water levels in groundwater basins decline. This reduces the necessary water available for agriculture, which uses approximately 40 percent of the state's total water.[5]

Conversely, floods occur during periods of rapid snow melt and heavy precipitation. Though floods help to recharge groundwater and alleviate drought, excess water in populated areas can be detrimental to life and property. Due to limitations in the capacity to store and transport water effectively, this excess water often cannot be captured. California's water infrastructure, which includes dams, aqueducts and pipelines, is frequently overextended during times of flood due to age and inefficiency. This has resulted in significant water losses due to dam failures, levee breaches and widespread flooding.

Despite farmers' continued efforts, California is at a critical crossroads in regards to water management. While the Sustainable Groundwater Management Act enacted in 2014 addresses many issues such as overdraft and depletion, land subsidence and seawater intrusion, it does not fully address the need for improved water infrastructure.

California's need for water infrastructure investment
California precipitation variability will undoubtedly increase, and as such will the need for a reliable and secure water source for agricultural production. Thus, public and private investment in modern, efficient and flexible water infrastructure is crucial.

Reservoirs in California have been experiencing historic highs in 2024, reaching as much as 150 percent of capacity due to multiple large storms.[6] Snowpack is also above-average this year – the second in a row – with statewide snowpack measuring 110 percent of its historical average.[7] Despite this abundance, most of California's recent excess water has flowed into the Pacific Ocean due to inadequate water infrastructure.

Dams are essential to capturing water during floods and storing water for periods of drought, which is especially important when considering California's status as the nation's most populous state.[8] In fact, the state has not constructed a new reservoir since the last regional dam, the New Melones Reservoir, was completed in 1979 – over 40 years ago[9]. Yet over the same period California's population has nearly doubled.[10]

In March 2024, Congress approved an additional USD 206 million in federal funding toward the California Sites Reservoir project, which is targeted for a 2026 groundbreaking. This investment makes for a total of USD 439.3 million in federal contributions to date. The project will provide an additional 1.5 million acre-feet of storage capacity, improving the state's water reliability and resiliency.[11]

While this is a start, billions of dollars of public and private capital will be required to address California's water infrastructure challenges. In the short term, the continued implementation of more sustainable water management practices, including less capital-intensive groundwater recharge practices, is necessary. However, long-term capital-intensive water infrastructure projects such as the Sites Reservoir are the solution to sustaining California's agricultural production, which is critical for US food security.

Important information
Leading Harvest is a nonprofit organization that mobilizes the entire value chain to accelerate the transition to a more sustainable and resilient global agricultural system. It provides third-party audited standards that create trust throughout the business ecosystem while driving and validating improvement across the supply chain. UBS is a founding member of Leading Harvest.

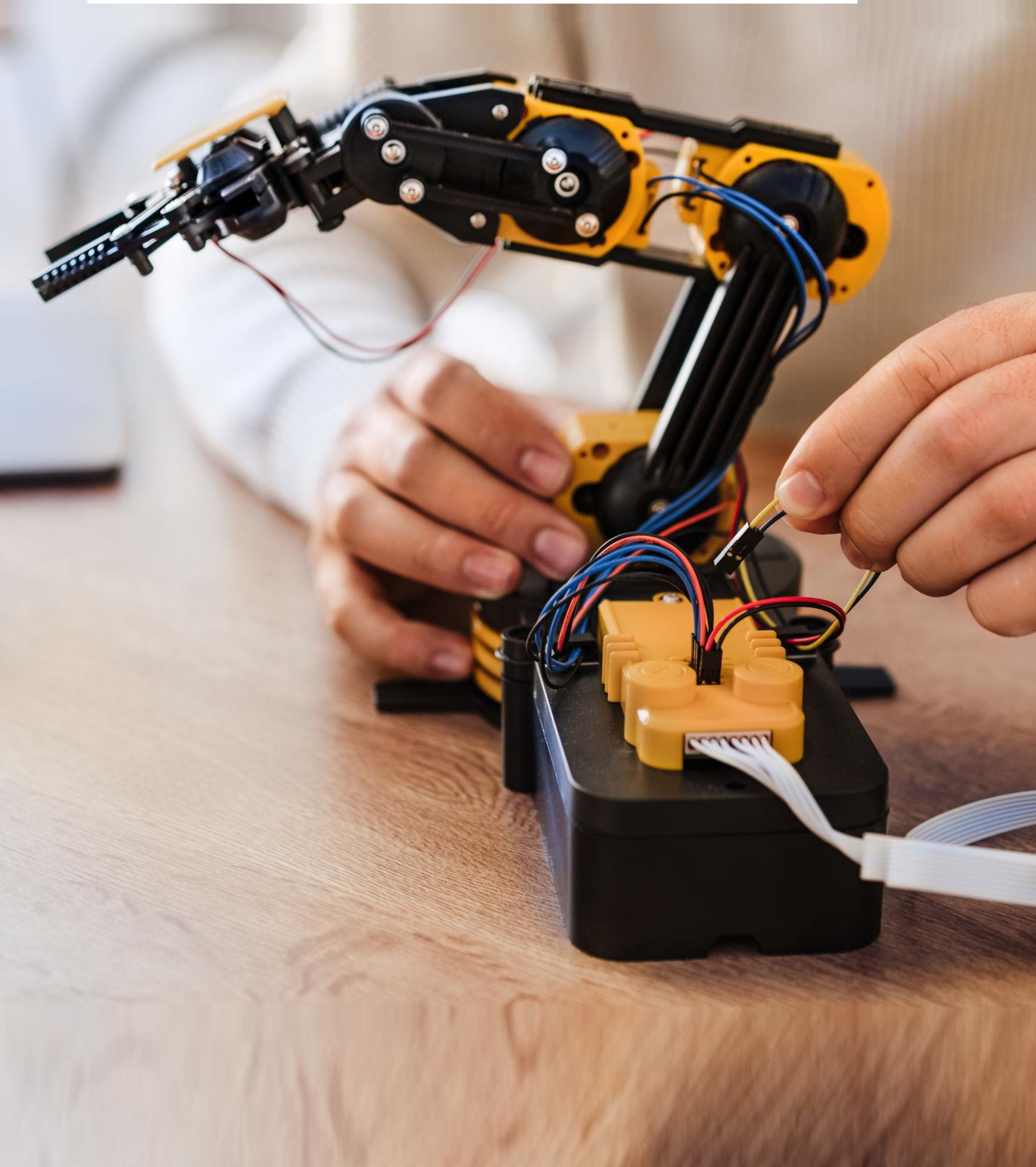
100% of UBS's farmland acres under management are enrolled in the Leading Harvest Farmland Management Standard as of 2020, the inaugural year. 100% of UBS's enrolled farmland acres are certified to the Standard by an independent, third-party auditor as of 2023.

For more info about Leading Harvest, please consult the webpage *here* and learn more about the Standard *here*. UBS's certification and surveillance audit reports are publicly available *here*. Enrollment fees based on acreage and crop type are paid to Leading Harvest by program users annually.

1 https://wwfint.awsassets.panda.org/downloads/bringing_it_down_to_earth___wwf_2021.pdf
2 https://www.fao.org/3/cc9206en/cc9206en.pdf
3 https://www.ppic.org/publication/water-use-in-californias-agriculture/
4 https://www.cdfa.ca.gov/Statistics/
5 https://water.ca.gov/Programs/Water-Use-And-Efficiency/Agricultural-Water-Use-Efficiency
6 https://www.nrcs.usda.gov/sites/default/files/2024-04/CA%20Water%20Supply%20Outlook%20Report-April%202024.pdf
7 https://water.ca.gov/News/News-Releases/2024/Apr-24/April-Snow-Survey-Shows-Above-Average-Snowpack-for-Second-Straight-Season
8 https://www.census.gov/library/stories/state-by-state/california-population-change-between-census-decade.html
9 https://www.watereducation.org/aquapedia/new-melones-dam
10 https://fred.stlouisfed.org/series/CAPOP
11 https://sitesproject.org/press-releases/press-release-sites-reservoir-awarded-additional-205-6-million-in-federal-funding-to-improve-western-water-infrastructure/

Private equity

A gradual return to growth



Finding a new normal

"From a buyer's perspective, more expensive leverage leads to lower modeled returns, fewer bids for companies, and a frozen market where companies are remaining in existing portfolios for longer. Research has shown a sustained return advantage for private capital even into a more turbulent 2023, and we expect this trend to continue as private equity funds navigate toward a new normal that is more reliant on operational improvement to drive returns."

James Pilkington
Multi-Managers Private Equity, Portfolio Manager

Higher-for-longer rates have put downward pressure on returns

Venture capital continues to struggle
The prolonged downturn in valuations and exits for venture capital (VC) funds and venture-backed companies continues into 2024, and this slowdown is taking longer to resolve than we had expected a year ago. After three negative quarters of returns leading venture capital funds to return -4.7% in 2023[2], GPs, LPs, and companies alike are anxiously awaiting a catalyst for recovery; companies continue to focus on managing cash burn and far fewer rounds are being raised, though there are signs that investor aversion to *down* rounds is subsiding, and lower valuations are beginning to prevail. At a minimum, extension rounds (done on the same financial terms as the prior round, but often with improved operating performance) are becoming more common.

AI finds an audience with VCs
Setting aside the downbeat returns picture in recent quarters, consumerized AI may be at the beginning of a cycle which allows VC and early-stage companies to regain some hype among consumers. Consumer excitement created many of the sharing-economy winners of the 2010s. It is too early to say whether widespread adoption of eg, ChatGPT, Gemini, and others ushers in a new wave of successful VC-backed companies. Cryptocurrencies were the last application of a general-purpose technology that captured the attention of casual technology observers; ultimately most VCs remained cautious and the number of companies generating *venture like* returns in the space was quite limited. AI is receiving a much wider audience among VCs, with consumer-facing and B2B applications now comprising the largest area of investment. Still, VCs are becoming wary of AI startups without tangible improvement in function or usability compared to the big-name generative AI platforms.

VC fundraising still muted
VCs raised 60% less capital in 2023 than in the year prior, and it will be a while before VC fundraising markets return to growth; investors generally re-invest the distributions of previous investments within the same asset class. Venture investments, which have usually taken longer to mature given the growth needed for these companies to reach the stage where they can exit, are now taking even longer to return capital to investors. The last VC vintage to show distributions greater than invested cost is 2014. Even storied VCs are not immune; an investor must look back to 2016 to find the last vintage year in which top quartile funds have distributed at least their invested cost.

Buyouts – all eyes on rates
In 2023, buyouts remained stuck in the lower-return environment that emerged in 2022, accompanied by reduced dealmaking. From a buyer's perspective, more expensive leverage leads to lower modeled returns, fewer bids for companies, and a frozen market where companies are remaining in existing portfolios for longer. The companies that are trading are selling for less, implicitly compensating buyers that have to put up more equity than two years ago when interest rates were lower. In 2023, the average multiple of EBITDA paid to acquire a company fell about one turn, to 11.0x from 11.9x EBITDA (slightly outpacing the decline seen in public markets).[3]

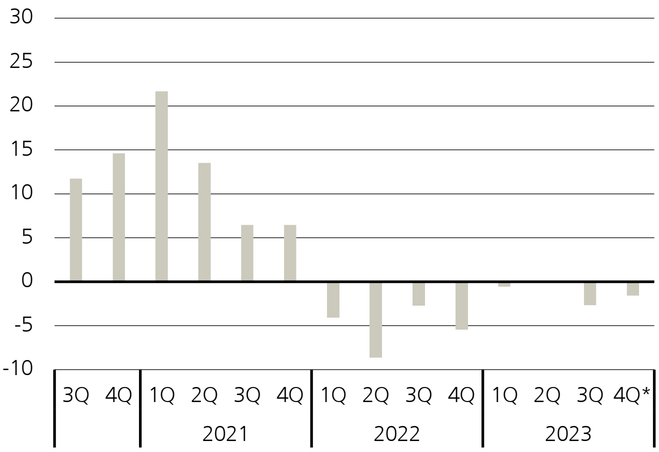
A challenging operating environment for private companies
Beyond the newfound complications of acquiring assets at attractive prices, GPs by and large report a difficult operating environment heading into 2024. In addition to borrowing costs, persistent inflation, wage and cost pressures, and waning consumer spending are weighing on private companies across industries. In addition, companies trading across borders are facing increased geopolitical complexity stemming from conflicts in the Middle East, Russia-Ukraine, and US-China trade tensions.

It should be noted that these dynamics apply to public companies as well as private ones, and private-equity backed companies still benefit from the typical value creation levers of improved management, processes, and technology (including AI), as well as a long-term perspective. Research has shown a sustained return advantage for private capital even into a more turbulent 2023[4], and we expect this trend to continue as private equity funds navigate toward a new normal that is more reliant on operational improvement to drive returns.

Investors crowd into larger funds
Buyout fundraising has favored larger funds; the top 15 funds raised approximately 40% of all capital heading into the end of 2023.[5] Outside of these top funds, many have closed below their targets, though investors may celebrate the greater selectivity likely to accompany this. Fundraising has tapered significantly into 2024; echoing VC, investors have less returned capital to re-invest: 2015 was the last vintage where the median fund has distributed at least invested cost. As consensus gradually builds around higher-for-longer rate policy, so do investor expectations for longer private equity holding periods.

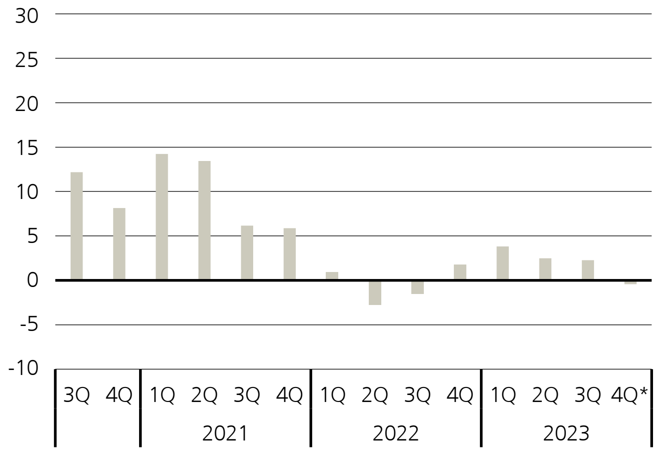
[2] Pitchbook, May 2024.
[3] McKinsey & Co, March 2024.
[4] CAIA Institute, April 2024.
[5] Private Equity International, October 2023.

Figure 1: Venture capital quarterly fund returns (%)



Source: PitchBook, May 2024. (* denotes preliminary data). **Past performance is not a guarantee for future results.**

Figure 2: Private equity quarterly fund returns (%)



Source: PitchBook, May 2024. (* denotes preliminary data). **Past performance is not a guarantee for future results.**

Secondaries as liquidity solution

As holding periods become extended, transactions require more equity, and many sponsors face a difficult fundraising environment, secondary investors have stepped in to fill the void. On the sponsor-led side, demand for secondary capital to support invested multi-asset funds as well as single asset transactions remains strong. While the best transactions may be oversubscribed (with pre-existing relationships the key to access), many will struggle to fill their capital needs, and secondary investors have an opportunity to dictate favorable terms.

Alignment can be very strong, with sponsors often contributing a substantial portion of the vehicle through in-the-money carried interest which represents a cash loss to the sponsor if the investment case is not achieved. On the LP sale side, the slow distribution environment will bring more motivated sellers to the table where buyers provide immediate liquidity and relief from the obligation to contribute additional capital; as the number of sellers grows, there is greater potential for premium stakes to trade below NAV (sub-premium funds are already trading below NAV). For both GP- and LP-led transactions, it appears that buyers will be in the driver's seat for the near future.

Private equity sector performance outlook

	Negative		Neutral		Positive
Americas			Venture capital	Growth equity, buyouts	Secondaries
Europe				Venture capital, growth equity, buyouts	Secondaries
Asia			Venture capital	Growth equity, buyouts	Secondaries

Source: UBS Asset Management, Real Estate & Private Markets (REPM), May 2024. Assessment informs top-down perspectives and strategy allocation. REPM will weigh the perceived relative attractiveness of these strategies using a scale of "underweight", "neutral" and "overweight" ratings. These ratings are the opinion of REPM and may not necessarily provide an accurate reflection of the ultimate success or potential return of a given strategy. **Past / expected performance is not a guarantee for future results.**

GP- led Secondaries

“A lack of full exits means it is too soon to say how well this latest generation of GP-led secondaries will fare, but the ingredients for success are all in place.”

Jochen Mende
Head of Secondaries

Pondering performance

How would you describe the supply/demand dynamics that you are seeing in the GP-led secondaries market today?
We are seeing strong demand for liquidity from the fund investor community, which is driving GPs to use the secondaries market more and more to generate liquidity options, in part also to facilitate new fundraising activity. What is particularly interesting in the current environment is that the quality of deals that we see is – on average – a lot higher than was the case two or three years ago.

Meanwhile, my perception is that only the highest quality opportunities are getting across the line. There seems to be a real bifurcation in the market. Those high-quality transactions are attracting a great deal of attention and capital, while transactions where either the GP or the underlying asset(s) have an issue, are a lot harder to get done.

What makes a high-quality GP-led secondaries deal?
Regardless of whether it is a single- or multi-asset GP-led secondaries transaction or a co-investment deal, we want to see a credible path to long-term operational value creation, along with good alignment of interest between ourselves, the fund manager and the management team of the underlying portfolio companies, at a reasonable entry valuation.

As far as the underlying assets are concerned, we have an affinity for certain sectors and business models. For example, a company in an industry that is very capex intensive is probably not for us, whereas tech-enabled business models with recurring revenues in certain sectors are going to be of interest. In addition, we are looking for a focus on operational value creation that is a good fit with the GP's track record and for the underlying companies and sectors. Finally, and maybe most importantly, we want to see strong alignment of interest between all parties.

> "My perception is that only the highest quality opportunities are getting across the line."

What represents strong alignment of interest for you and what would be an immediate red flag that would cause you to walk away from a deal?
For us, the more of their own money a fund manager puts at risk alongside us, the stronger the positive signal. At the moment, we are seeing fund managers contribute significant amounts of their own capital – often 5 percent or more – to GP-led transactions, which we view as a strong indicator of conviction and alignment of incentives.

For example, we invested in one GP-led secondaries transaction recently where the GP rolled over all proceeds, injected significant new money out of pocket into the deal alongside us, with successor funds also coming into the deal. Ultimately, the GP accounted for more than 10 percent of the continuation vehicle. It is that type of conviction that we really like to see.

Where do you see the line between GP-leds and co-investment? Is there an argument that GP-leds are really just co-investment with fees attached?
When we set up our transactions business, we had a discussion about what types of investment opportunities we would define as co-investment and what we consider to be a secondaries transaction. We took the view that any deal where a GP is adding a new asset to its portfolio and then offering a piece of that to their LP base is a co-investment. If you take that approach, it is pretty clear where the line is.

In answer to your second question, I do not buy into the argument that a GP-led is really just a co-investment with fees and carry attached because the dynamics are so different. In many cases, with a GP-led secondaries deal, the GP has spent a significant period of time working with the underlying portfolio company, identifying and resolving any problems that may have been the reason to invest in the first place and laying the foundations for growth. You do not get that dynamic with a typical co-investment.

Furthermore, I would argue that the alignment is greater in the GP-led space because of the significant investment that sponsors typically make. The amount of their own capital that GPs put into a deal alongside co-investors is simply not as great as those at risk in a continuation vehicle.

What changes have you seen in the way that LPs view GP-led secondaries?
I think the sentiment has turned from being very critical to being appreciative of the liquidity that these GP-led secondaries provide. Consider what took place in the broader exit environment last year: M&A activity has slowed down a lot and IPO markets have largely been shut. LPs have therefore come to recognize that GP-led secondaries represent one of the few avenues to liquidity available and, according to the broker community, these deals have contributed between USD 50 billion and USD 60 billion of liquidity that LPs would otherwise not have received.

What do you consider to be best practice when it comes to a GP's communication with its LP base in the run up to one of these deals?
What works well in our view is to get LP input into a process early on. It is also important to provide a clear rationale to investors as to why a certain asset has been selected for a GP-led secondaries deal and why the process is being run.

In terms of best practice, we think it is important to give LPs a decent amount of time to come to their own conclusion and to provide information in a fair and transparent way. These things are certainly helping to manage some of the negative perceptions that historically existed around these GP-led secondaries transactions.

How would you say this latest generation of GP-led deals is performing, or is it too soon to say?
Having had this conversation with a number of my peers, I think it is too early to know. As of early 2024, we haven't really seen many large-scale studies or survey results published – yet. We think all the ingredients are in place for this latest cohort of GP-led secondaries to ultimately perform very well, but we haven't seen many full exits take place.

From our own experience, we have participated in more than 20 GP-led transactions and have only seen one full exit to date that was announced at the end of last year. It hasn't closed yet but it looks promising, with a money multiple of 2.5 times and an IRR in excess of 30 percent. Hopefully we will see more of these, but for now it's just too soon to tell how this sub-asset class performs and compares to other private equity styles.

I would add that trying to benchmark GP-led secondaries transactions against other parts of the secondaries industry, or other areas of private equity more generally, is complicated. For example, comparing a single-asset GP-led secondaries deal with a multi-asset deal with 30 underlying companies, simply makes little sense.

"It is important to provide a clear rationale to investors as to why a certain asset has been selected for a GP-led secondaries deal."

What advice would you give a GP thinking of executing on a GP-led deal for the first time? What does it take to get a deal across the line, as seamlessly as possible?
First and foremost, I would say that if you are considering embarking on one of these deals you need to study the market and find yourself a broker that has a great deal of experience orchestrating these types of transactions.

Also, I think you need to be transparent with LPs about the rationale behind the transaction, the asset selections and the go-forward value-creation plan. Transparency is paramount, in our view.

How do you see the GP-led secondaries market evolving?
I think we will see more of the same over the next 18–24 months. I do not expect the broader exit malaise to dramatically change any time soon. Even if exit markets are more accommodative, there is just a large backlog that needs to be worked through. Certainly, I do not believe we will be returning to the situation we had in 2021, when you could sell just about anything. As a result, I think every GP will be trying to avail themselves of this tool that provides liquidity options to their LP base.

Meanwhile, what is particularly interesting to me, is the fact that a lot of GPs are now also trying to launch dedicated continuation vehicle strategies. Furthermore, it will be interesting to see the extent to which GP-led secondaries penetrate the venture market and, of course, I am curious to see what the performance of the GP-led secondaries segment will be.

"Trying to benchmark GP-led secondaries transactions against other parts of the secondaries industry, or other areas of private equity more generally, is complicated."

Private credit

New emerging themes and trades

New circumstances, new opportunities

> "As with any market, private credit experiences emerging themes or popular new trends that drive investor interest. In 2Q24, a few new emerging themes have become more prevalent, particularly second lien residential credit and digital infrastructure debt."
>
> **Joseph Sciortino**
> Head Multi-Managers Private Credit

Private credit financing in private real estate and digital infrastructure

Second lien residential credit
In private real estate, US residential credit remains a bright spot with strong fundamentals due to years of elevated HPA, built up homeowner equity, a resilient US consumer and low default rates. However, with interest rates so high, more than 95% of US mortgage borrowers don't have the money to refinance, resulting in reduced opportunities for traditional mortgage origination. Originators have consequently sought to find an alternative product, and recently started to turn their attention to second lien products. Borrowers that do not want to lose their low rates with a traditional refinance can take out additional incremental capital with a second lien loan at a higher rate and still maintain a lower blended cost of capital.

The solution provides an alternative to a home equity line of credit, cash out refinances or a personal loan, which are borrowers' other best options. Interestingly, the Federal Housing Finance Agency recently proposed a plan for a second lien home equity product to be offered through Freddie Mac, though it would focus on loans where the agency also owned the first lien mortgage. Freddie estimates that such a product could unlock USD 850 billion of potential origination volume. Managers appear to be accessing the strategy through various avenues, including direct origination of second lien loans, partnerships with specialty originators for deal flow agreements to purchase loan pools, or participating in private securitizations.

Digital infrastructure debt
AI, particularly the blistering proliferation of large language models (LLMs), remain in the spotlight as venture capital and mega-cap tech continue to pour vast amounts of capital into the space. However, with the influx of capital and sudden surge of compute power needed to train models, investors have been quick to point out that the required infrastructure (electricity generation and data/compute power) supply will be quickly outstripped by expected growth in demand.

As a result, a common adjacent investment theme to LLMs has been to invest in other parts of the AI value chain, specifically through the financing of digital infrastructure in the form of AI-specialized data centers. Managers have been entering the space through financing ground-up construction projects such as data centers, bridge/transitional financing for projects in later stages, as well as loans to data center operators backed by top tier tenants. The approach provides investors with an investment that is AI-adjacent and typically collateralized by new economy infrastructure, strong tenants and attractive exit cap rates.

Private credit sector performance outlook[1]

	Negative		Neutral		Positive
Americas			Special situations, Corporate	Commercial real estate	Residential real estate
Europe			Special situations, Corporate	Commercial real estate	Residential real estate

1 Source: UBS Asset Management, Real Estate & Private Markets (REPM), May 2024. Assessment informs top-down perspectives as well as bottom-up strategy and manager selection. REPM will weigh the perceived relative attractiveness of these strategies using a scale of "underweight", "neutral weight" and "overweight" ratings. These ratings are the opinion of REPM and may not necessarily provide an accurate reflection of the ultimate success or potential return of a given strategy. **Past / expected performance is not a guarantee for future results.**

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