The Red Thread

Our semi-annual insights into private markets

Edition December 2024



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Foreword

There is an upside to slow fundraising

"Dry powder for private markets is also at the lowest level since 2021... this means less competition for deals, and with the increasing visibility in the space, we believe the time for allocations to high-conviction ideas is now."



Alex Leung Head of Research & Strategy, Infrastructure

Dear readers

It gives us great pleasure to announce that going forward, we've teamed up with The Red Thread as a means of connecting thinking across our industry. We believe that by unearthing the key threads that run though market trends, our readers should be able to see opportunity and risk with greater clarity.

While the current market landscape is hardly 'predictable', it does seem to have fallen into a pattern of sorts lately. Macro indicators have been stabilizing – economic growth remains stable and has surprised to the upside in some regions, greatly reducing hard-landing risks. Though long-term rates have remained higher for longer despite recent rate cuts, the direction of travel is clear so risks have been priced in.

Private markets have faced headwinds from the denominator effect following weakness in public equities in 2022. But global equities are up 40% in the past two years, which should reduce any straggling adverse impacts. With the biggest election year in human history already behind us, it seems reasonable to say that the problems ahead are more known than unknown, as least compared to 12 months ago.

Investor sentiment remains subdued in 2024. Private markets fundraising continues to be challenging, but dry powder for private markets is also at the lowest level since 2021. When measured as a percentage of total assets under management, dry powder is at its lowest level ever.

Overall, an undeniably healthy macroeconomic backdrop is combined with strong equity markets and more clarity around global politics. Lower dry powder means less competition for deals, and with the increasing visibility in the space, we believe the time for allocations to high-conviction ideas is now. We remain optimistic about private markets heading into 2025.

Read on for in-depth insights from our experts on how the macroeconomic developments may impact private markets investments.

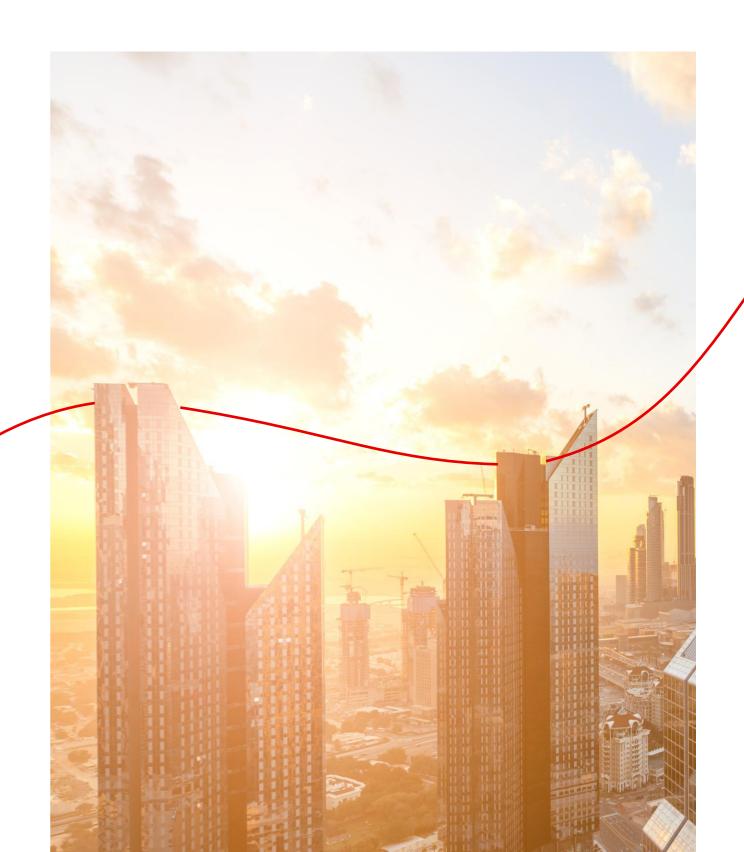
Global real estate

At the inflection point

"Outside of offices, real estate capital values look to be bottoming out, while transaction activity has been trending up this year. We expect market recovery to take hold in 2025 and capital values to rise. Proposed tariff increases by Donald Trump will likely impact logistics markets, affecting assets at airports, ports and land borders, while consumer focused facilities are less at risk."



Fergus HicksReal Estate Strategist



Aside from offices, market bottoms out

Economies continue to grow, with the US in particular remaining strong and brushing off renewed fears of recession over the northern hemisphere summer. The US grew 2.8% annualized in 3Q24, or 0.7% quarter on quarter (QoQ), slightly below the 3.0% annualized growth achieved in the previous quarter. The eurozone also showed decent growth, of 0.4% QoQ, while China remained weak, growing 4.6% year over year (YoY) and 0.9% QoQ. Fears over the Chinese economy prompted the government to release a large stimulus package in September, including interest rate and bank reserve ratio cuts, and support for the stock market. The package should at least prevent a further deterioration in the economy, but may not prompt a sharp rebound.

Alongside growing economies inflation has moderated, back to around 2%, and below in some countries, with the eurozone, UK and Canada all reporting sub-2% inflation for September. Going forward, we expect inflation to trend around the 2% rate but, as ever, will be subject to shocks. A further escalation of the war in the Middle East which hits oil supply and pushes up energy prices is one threat.

Against this backdrop, the widely expected cuts in interest rates across markets are now taking place, with the US Fed the last major central bank to start cutting as it delivered a jumbo 50bps rate cut in September, followed up with another 25bps in November and more cuts expected. The European Central Bank followed up on its June cut with back-to-back 25bps cuts in September and October, while the Bank of England cut by 25bps in both August and November. Japan continues to stand apart and move in the opposite direction, with another rise expected by year end.

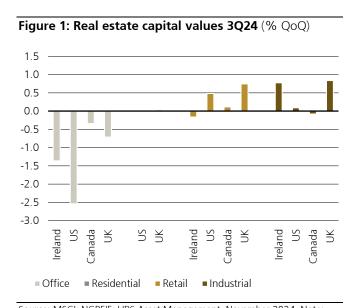
Rate cuts should help improve the mood of real estate investors, though financing costs look set to remain restrictive in the near term at least. This is a headwind for the sector since it prevents leveraged purchases from taking place, which are standard in real estate investment, especially for large lot sizes. Borrowers increasingly rely on non-bank lenders. As interest rates decline the situation should ease, but we're unlikely to return the widespread between real estate yields and borrowing costs which was seen for much of the post-global financial crisis (GFC) decade.

According to MSCI data, global real estate transaction activity bottomed out in 4Q23 and has been on a slow upward trend this year, though investment volumes did slip slightly in 3Q24. In USD terms and after allowing for seasonal effects, investment volumes edged down in 3Q24 in both EMEA and the Americas, while rose slightly in Asia Pacific. Globally, office was the weakest sector, and the only one to have fallen back below 4Q23. Overall, we expect global transaction activity to gradually accelerate once the market reaches a pricing investors regard as fair. Yields and cap rates were fairly flat in 3Q24.

In a global sample of over 300 city-sector markets we monitor, yields and cap rates were unchanged in 74% of markets, fell in 10% of them and rose in 16%. According to CBRE data, notable moves included rises in German logistics yields, mirroring the weak German economy and industrial sector, and increases in prime Australian office yields. By contrast the prime Paris office yield, a key yardstick for the market, dropped 25bps to 4.25%, the first fall since 2021. However, it remained well above the sub-3% peak pricing achieved in 2021. In the US, according to NCREIF data, cap rates were pretty flat, with rises in a small number of markets, focused on the industrial sector.

In terms of capital values, apart from offices, the market looks to have bottomed out. For higher frequency reporting markets with data already released for 3Q24, capital values mostly rose or were flat across the residential, retail and industrial sectors (see Figure 1). By contrast, offices saw further significant value declines across markets, down 2.5% QoQ in the US for example.

Within the office market the stark difference between market-leading properties, with features that occupiers desire, and the rest, persists. For example, according to MSCI, in the UK falls in office capital values ranged from just 1.3% YoY for better properties (75th percentile) to 14.9% YoY falls for worse performers (25th percentile). We expect office values to decline further in large swathes of the market as it continues to adjust to changes in the way people work. However, some employers are now more forcefully requiring staff to attend the office, sometimes on a five-day basis, providing some hope for the sector.

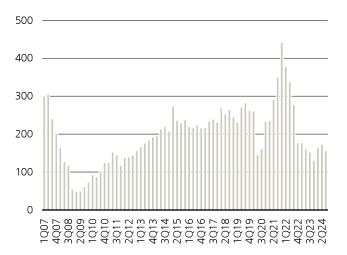


Source: MSCI; NCREIF; UBS Asset Management, November 2024. Note: residential is not covered for Canada and Ireland. **Past performance is not a guarantee for future results.**

Trump tariffs likely to impact global logistics market

In real estate markets, downturns typically affect both prices and transaction activity, with the current downturn being no exception. Investment volumes have fallen sharply from their peak at the end of 2021, when they were boosted by pent-up demand as the COVID-19 pandemic eased (see Figure 2). The drop in investment volumes has been driven both by lower capital values, down 16% since mid-2022 according to MSCI, and lower deal numbers. Investment activity fell as the market reacted to sharply higher interest rates and seller price expectations slowly adjusted. Investors also rebalanced their portfolios while more costly and scarce debt also had an impact.

Figure 2: Global investment volumes (seasonally adjusted, USD billion)



Source: MSCI; UBS Asset Management, November 2024. Past performance is not a guarantee for future results.

In 2024, the slow road to recovery in investment activity has begun, coinciding with the commencement of interest rate cuts and a leveling off in real estate prices. Prices are reaching the point where sellers feel comfortable transacting, even if at levels which represent a significant discount to their original purchase price. A recovery in transaction activity should permeate the whole market and result in greater liquidity for real estate funds too, allowing them to sell assets to meet any outstanding redemption requests.

We expect transaction activity to recover further in 2025, though do not expect a sharp, v-shaped recovery. Several factors should support the recovery. Following strong price gains in equity markets, rebalancing effects may now work the other way as investors need to increase their allocations to real estate to meet asset allocation model targets. Improved financing conditions should allow the recapitalization of closed-ended funds which have had their life spans extended during unfavorable market conditions as the downturn has unfolded.

Investment volumes for the lower quality end of the office market, and even for better quality assets, look set to remain more lethargic. Ongoing uncertainty over the sector will likely continue to weigh on transaction activity, even though more positive noises are being heard about office use and their long-term viability. By contrast, data centers, which fall into the investment universes of both real estate and infrastructure investors, look set to account for an increasing share of investment activity.

In 2025, we expect recovery in the real estate market to take hold, and that at the global level capital values will increase 2-3% YoY in local currency terms which, accompanied by an income return of 4-5%, should give a total return of 6-7% for the year as a whole. We expect performance to be broadly similar across the retail, industrial and residential sectors, but that offices will lag and that some offices will suffer further capital value declines.

In the US, the re-election of Donald Trump as president looks set to have both positive and negative effects on the real estate market, in both the short and longer term. In the near term, a hotter US economy due to the extension of tax cuts, increased spending, looser fiscal policy and lighter regulation looks set to boost occupier demand and could lead to a pop in rental growth. However, this will likely be countered by the impact of a higher path for interest rates to counter inflationary pressures on capital markets. In the longer term, changes to tariffs and trade will also have an impact and may curb growth in the US.

In global real estate markets, industrial and logistics is the sector which looks most exposed to Donald Trump's proposed tariff increases. A pull-back or reversal in global trade caused by tariff hikes and trade wars could see multinationals reconfigure their supply chains and trade volumes grow more slowly or even pull back. This is unlikely to happen overnight since it takes time for supply chains to be reconfigured.

However, investors should be aware of the impact that it may have on the logistics market in the medium term. We think it would impact the upper end of the distribution chain and impair demand for trade-focused logistics facilities at airports, ports and around land borders. The reshoring of manufacturing to the US could also reduce demand for factories in Asia Pacic, while boosting demand for them in the US. By contrast, we think the lower end of the distribution chain will be less affected, including warehouses and facilities focused on end-delivery to the final consumer or retailer, particularly in the US.

Unlisted real estate sector performance outlook

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

Source: Oxford Economics; UBS Asset Management, November 2024.

Note: Classifications refer to expected total returns after currency hedging over the period 2025-27 versus global all property. Classifications are not a guarantee for future results.



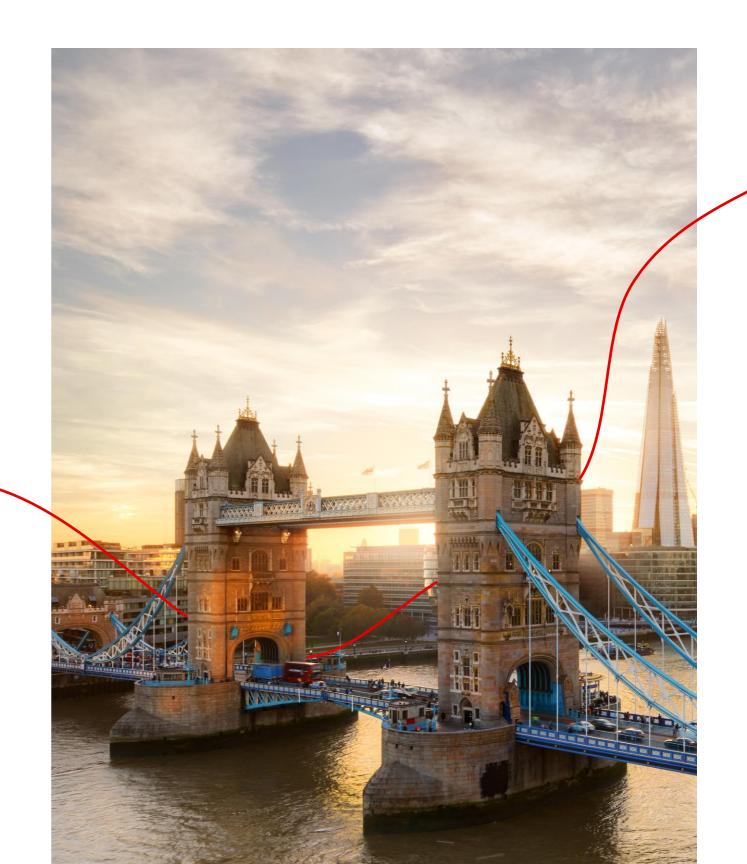
Europe real estate

Who dares wins

"Real estate investors should be ready to benefit from the structural changes that are likely coming. Changes are only inconvenient for those who do not prepare for them."



Olaf Margeirsson Head of Real Estate, Research & Strategy, Europe ex DACH



Better mid-term outlook but long-term challenges

"For years, Germany's business model was: the Americans protect us for free, the Russians sell us cheap gas and the Chinese buy our overpriced cars. None of that works anymore."

Oliver Welke, a German comedian

Start of a cycle, but granularity needed

Around six months ago, in our *last publication*, we wrote about the start of a new investment cycle in Europe. We highlighted the improvement in inflation and interest rates, in resilient purchasing manager indices (PMIs), especially for services, and how investors should act as athletes before the race begins: "train hard, win easy." Prepare and get outsized returns.

Since then, nothing has happened that would change our minds regarding the mid-term outlook. On the contrary, we increasingly see data points that confirm our former opinion that we are at the start of a new real estate cycle.

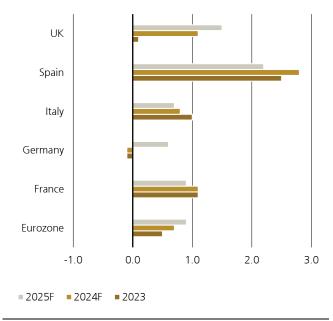
Top down, inflation has continued to improve. Annual eurozone inflation came in at 2.0% in October, in line with the inflation target of the European Central Bank (ECB). Across the Channel, the *Lady of Threadneedle Street*: Bank of England (BoE), and the ECB, are already cutting interest rates thanks to falling inflation. Now at 2.3%, it indicates a largely positive outlook. We expect policy rates in the eurozone to hit 2.0% by June next year and that the BoE will deliver 75bps rate cuts by September 2025, down to 4.0%. Thanks to lower inflation and policy rates, we also continue to expect interest rates to largely trade sideways or lower on the long end of the curve, with the German Bund around 2.25% and the UK gilt around 3.5% in a year's time.

The economy in the eurozone is holding up. Annual real economic growth came in at 0.9% in 3Q24, up from 0.6% in 2Q24 and 0.5% in 1Q24. Services are clearly the driving force, with the PMI survey results for that part of the economy above 50 (indicating growth) for nine consecutive months. But manufacturing PMI values have been below 50 (indicating a slump) since summer of 2022, hamstrung by high energy prices.

The headline economic picture is clearly positive from the marginal-improvements point of view. Not robust, but positive. But granularity matters. And when we look at the more country-level developments within Europe, we can see a diverging picture.

We expect economic growth in the region to stay adequate over the mid-term, i.e. until year end 2025 (see Figure 1). Clearly, Spain is set to outperform other key economies in the region while Germany acts as a drag. Germany has, in fact, been going through structural difficulties for quite some time now. Gross domestic product is all but flat since 2019 and industrial production, having peaked in 2017, has contracted by ~15% since then. That contraction is double as much as the contraction in industrial output in Italy over the same period. When we look at industrial production's most recent development, a notable gap is developing between Spain and Italy on the one hand, and Germany on the other.

Figure 1: Annual real GDP growth (%)



Source: UBS CIO, November 2024.

Structural challenges

We must have more than granularity in mind. Structural developments matter, especially in the long run – and the long run is the appropriate time horizon for real estate investors to consider, given the nature of the asset class.

Europe faces a fundamental, long-term challenge: not enough competitiveness. Welke's previously quoted quip, focusing on Germany, may be blunt but Mario Draghi stated the same opinion, in a frank, yet more bureaucratic tone, in his recent report on *The Future of European Competitiveness*. Draghi does not mince his words and some of the issues he points out are:

- Europe has strong innovation capacity, thanks to e.g., top-quality universities, but regulatory, financial and training barriers cause its companies and industries to struggle to turn this into successes within the global competitive landscape. As an example, many European entrepreneurs relocate abroad, first and foremost to the US, where they have a friendlier environment to grow over the long term.
- The energy crisis in Europe, driven mainly by the drop in Russian gas imports after the war in Ukraine, kept energy prices high, directly undermining European competitiveness. The drop in industrial output is a clear consequence of this.
- Europe's defense industry is fragmented, therefore not large enough to benefit from economies of scale. Given the new global geopolitical environment, there are doubts floating around NATO's ability or willingness to respond in case of an attack on one of its members, particularly in eastern Europe.
- A fragmented defense industry, which impacts strategic autonomy, exposes Europe to political and economic coercion from unfriendly actors. This may cause lower or more volatile economic growth, especially over the long run, impacting access to raw resources and intermediate inputs – think of periodic hiccups in the supply chain during the COVID-19 pandemic.

Draghi proposes solutions for these issues, including: reforming pension plan regulations for more flexibility in investing pensions into real capital investments; simplifying research and development frameworks; adding to cleanenergy investments; channeling defense procurement to European firms; and policies intended to secure access to critical material and outputs, including pharmaceuticals.

How can real estate investors respond?

The lack of competitiveness that Europe faces is nothing new, but it is increasingly being discussed due to notable geopolitical events. The Draghi report highlights this specifically and depicts how the relative labor productivity of Europe has suffered against the US over the last two decades. But policy changes are more likely to surface now in comparison to the past. Thus, real estate investors should consider how they can benefit from these structural challenges.

First, the Draghi report specifically highlights the need for changes in the pharmaceutical supply chain. According to him, the industry is "a sector of geostrategic importance." For example, in the life sciences real estate sector in Europe where the current stock (e.g., labs and manufacturing sites) is short given high demand, geopolitical forces continue to drive regionalization of pharmaceutical R&D further exasperating this shortage of stock. We've covered this topic in more detail in a *separate publication*.

Second, increased focus on clean energy and autonomy in this area in general will have clear implications for real estate investors. Heating and cooling constitutes around half of total energy consumption in Europe, of which 40% goes to industry and the rest to buildings. That means ca. 30% of energy consumption in Europe goes to heating and cooling of residential and commercial real estate.

The investment needed in procuring energy (e.g., solar panels) and retaining it (insulation) onsite is clear. The installation of heat pumps, solar panels and other energy-generating features should be considered more by real estate investors to entice tenants looking for lower energy costs. This is particularly significant given the gap in energy costs between Europe and its key competitors: the US and China. There may also be opportunities for real estate investors in installation of electric vehicle recharging points, including in shopping centers, last-mile logistics locations, apartment complexes and offices.

Third, logistics and manufacturing real estate is a clear winner in case of increased focus on regionalizing defense contracts. Europe spent EUR 240 billion on defense in 2022 – and would spend ca. EUR 80 billion more assuming all countries spent close to 2% of their GDP on defense.² Between June 2022 and June 2023, EUR 75 billion was spent on defense procurement, i.e. material, nearly 80% of which went to suppliers outside the region, mainly in the US.³ Therefore, if procurement is around a third of total defense spending, European defense procurement could be close to EUR 100 billion a year. This is based on the assumption that defense spending accounts for ca. 2% of nations' GDP or ca. 50% higher than it currently is (EUR 75 billion).

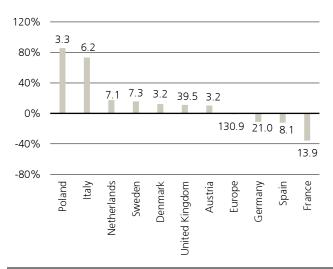
Clearly, if regional procurement increases, European defense contractors will likely need to expand their manufacturing capabilities, which may include a larger real estate footprint. The demand for warehouses capable of facilitating the necessary changes in defense supply chains is likely to increase as well. This would come on top of any changes focused on e.g., securing the supply of critical raw materials and inputs in e.g., electricity generation and distribution, water supply and protection, sewage and waste management and other critical industries that would need to be shielded from unfriendly actors in a new geopolitical world.

So to summarize, the competitiveness of Europe has been under pressure since the beginning of this century. A credible set of structural improvements, which is taken seriously by the European Commission that says it "sets the stage for a new era of sustainable growth," has been formulated. If executed, the improvements could affect the long-term development of the region for the better. Real estate investors must heed this development and be ready to benefit from the structural changes that are likely coming. Changes are only inconvenient for those who do not prepare for them.

Capital markets are coming back

Following the improved short- and mid-term outlook, European commercial real estate markets are beginning to see an increase in investment volumes. This is selective, however, and it is mainly markets where valuations have been updated to reflect market pricing, and where leasing market fundamentals are positive enough to encourage investors to price higher rent-driven capital values a few years down the line where the recovery is the strongest. Smaller, and perhaps somewhat more niche markets, are also improving relatively fast but from a lower base than larger, liquid markets.

Figure 2: Annual change (%) in year-to-date (YTD) commercial real estate investment. Bars represent YTD inv. volume (EUR billion)



Source: MSCI, 3Q24.

The above overview on the country and sector level shows that Poland and Italy lead the pack in terms of investment volume improvement if we look at YTD volume compared to the same period last year (see Figure 2). However, investment volumes are low, only EUR 3.3 billion in Poland, and so the relative movement can easily be outsized. More descriptive is perhaps the fact that Europe's largest commercial real estate market, and the 3rd largest one in the world according to MSCI, i.e. the UK, is seeing its YTD investment volume increase by a low double-digit number in relative terms, hitting EUR 39.4 billion in the first three quarters of 2024.

The total European YTD investment volume, EUR 130.9 billion, is however down 1% YoY, as Germany, Spain and France continue to see pressures on investment volume. One reason: those markets' valuations are somewhat less up-do-date than valuations in the UK, so investors are not keen on stepping into those markets yet.

Figure 3: European YTD real estate investment volume by sector and YoY change

	EUR bn.	YoY
Office	28.6	-17%
Industrial	28.1	12%
Retail	21.6	-9%
Hotel	15.4	55%
Apartment	27.4	7%
Senior housing & care	2.8	-40%
Dev site	7.0	-18%
Europe total, all sectors	130.9	-1%

Source: MSCI, 3Q24.

Looking at the sector breakdown (see Figure 3), we see that investment volumes in hotels are 55% higher YTD than last year. Amongst the major sectors, offices are well behind with a 17% contraction in investment volume, outperforming only senior housing which is a much smaller sector easily affected by single deals. There is no surprise that the investment volumes in the industrial and residential sectors is improving given the leasing market fundamentals of those sectors. But leasing markets dynamics may be surprising given news headlines.

Leasing markets: prime offices are outperforming

There has been much ink spilled on the troubles of offices. It is true that low-quality offices are struggling, and vacancy rates are close to all-time highs in that part of the sector. As an example, low-quality offices in Central London are close to 30% vacant according to data from MSCI.

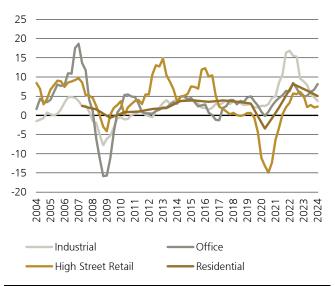
But high-quality offices are in demand, driven by tenants' preference to offer their employees an attractive working environment. It's also important to remember that while weekly occupancy rates (i.e. how occupied are let office spaces due to people coming into the office rather than working from home) are widely lower than the ca. 70% mark they were at before the pandemic, the increase in occupancy rates over the week are notable. Note that we are specifically talking about Europe here.

According to Savills, Madrid offices are steadying around 65% occupancy level while the West End market in London is hovering around 60% over the last year or so. Other markets, such as Paris, Warsaw and Prague are largely flattening around the 55% mark. This is a stark difference to the US, where occupancy is only 30-35% in some markets, see e.g., Los Angeles, New York and San Francisco.⁵ European offices are not facing the same problems that American offices do.

Therefore, while we expect that European office occupiers will continue to optimize their office footprint in the semesters to come – measures include e.g., more desk sharing and concentration of office locations into fewer buildings to reach scale and better information flow between teams – we are fairly confident about the prospects of high-quality, well-located offices.

This should not come as a surprise: prime rental growth for European offices is currently *outperforming* other sectors as there's a relative shortage of high-quality offices despite total office take-up, on the high-level, being ca. 25-30% lower than pre-pandemic levels. Prime office rents in Europe are up 8.2% on an annual basis as of September, with residential (all-property quality) rents rising ca. 5% over the same time. Prime industrial and high street retail assets are both seeing their rents rise by 3.7% and 2.3%, respectively (see Figure 4).

Figure 4: Europe, annual rental growth by sector (%)



Source: CBRE; Green Street; UBS Asset Management, 3Q24.

On the whole, we are looking at positive rental growth across most markets, with the trickiest segment being low-quality offices. In the UK specifically, we expect all-office rental growth to be close to 2.0% p.a. over the next three years, while industrial and residential markets should see closer to ~3.5% p.a. growth over the same period. But we also expect selected prime offices to see higher per annum growth e.g., ca. 4.5% and 3.5% in the City and West End markets by year-end 2027.

Elsewhere on the continent, prime offices are also expected to deliver positive rental growth, but the range is vast with e.g., Rome and Berlin seeing only ~1.0% p.a. growth over the next three years but Munich, Madrid and central Amsterdam closer to ~3-4% p.a. Industrial rental growth is more even, with most markets around ~2.5-3.0%, somewhat trailing the UK industrial segment.

Residential is outperforming other sectors in many cities, with market rental growth expected to be close to ~4-5% in Warsaw, Berlin and Barcelona but ~3-4% in e.g. Munich, Amsterdam and Dublin.

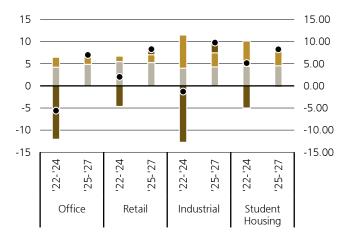
Overall, the market rental growth outlook is largely positive, driven by relative shortages of space in e.g., the residential and prime office segments. And importantly, prime rental growth should be higher than inflation in most markets, something that has generally been rather rare since we faced the spike in inflation in 2022. Therefore, we expect rental growth to largely contribute to positive total returns in the coming years. But the mere fact that yields have stabilized at a relatively high level is in many cases enough to make the case for real estate, given higher income returns.

The total return outlook has markedly improved

We've previously focused on the fact that inflation has come down markedly, and with it, interest rates. And as that happens, the yield spreads (risk premiums) between property yields and local government bond rates rise: yields stabilize and their impact on capital growth subsides. Add in a relatively healthy outlook for rental growth, and we end up with a total return outlook that is often close to high single-digit numbers per annum over the next three years for multiple markets.

The UK serves as an excellent example of how the tide has turned in terms of the contribution to total returns due to changes in yields. The graph below depicts the all-property outlook for each sector over the period 2025-2027 compared to what we expect to be the case for the period 2022-2024 (see Figure 5). The key improvement is simple: the yield expansion is all but over – we highlighted this in *May* – and even turning around in selected markets, especially those where rental growth is healthy.

Figure 5: UK, p.a. total return and its composition over two different investment periods (%)



■ Income Return ■ Rental Growth ■ Yield Movement ● Total Return

Source: UBS Asset Management, 3Q24. Past performance is not a guarantee for future results.

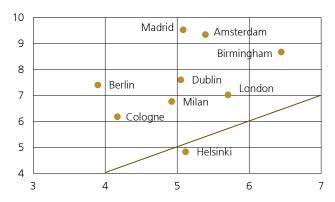
The picture is similar in continental Europe. As an example, when we consider our estimates of market-risk over a long-term (i.e. over the whole cycle) holding period in European residential markets compared to what we believe will be the actual gross returns over the next three years, we get the following picture (see Figure 6).

The residential market in Europe is famously low-yielding, one key reason being how relatively stable its capital values are, i.e. it is relatively low risk. However, there are clear pressures in the sector when it comes to rental growth, which is likely to drive positive returns within the sector despite various regulations slowing rents down. But the sheer lack of space in the sector, due to structural underconstruction for years, has generated an investment opportunity in the sector today that looks like it may generate healthy risk-adjusted returns in the coming few years.

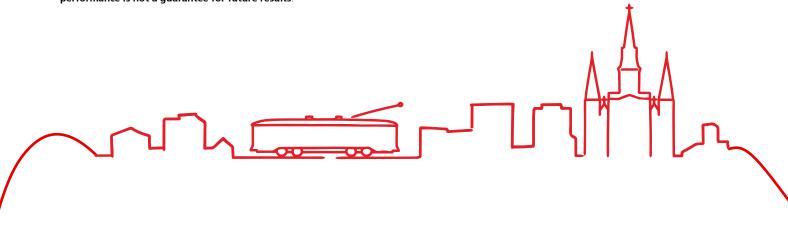
To summarize, the outlook for European real estate markets has markedly improved, be it in absolute terms (example in Figure 5) or on a risk-adjusted basis (example in Figure 6).

The improved mid-term outlook is, however, somewhat burdened by a long-term challenging environment where Europe needs to find its place anew in a world where geopolitics have shifted. But investors that prepare for such a structural change are those that will be able to benefit from it in order to generate attractive risk-adjusted returns from their portfolios. For the basis of investments is not to avoid all risks but to take calculated, fruitful risks — and Europe's commercial real estate markets are ripe.

Figure 6: Europe residential markets, est. required return vs. est. forecasted returns over the next 3 years



Source: CBRE; Refinitiv; UBS Asset Management, 3Q24. Past performance is not a guarantee for future results.



¹ European Commission: Energy, Climate change, Environment, *link*, accessed November 2024.

² European Defence Agency (2022), Defence Data – Key Findings and Analysis, accessed November 2024.

³ The future of European competitiveness. Part B I In-depth analysis and recommendations, September 2024. Accessed November 2024.

⁴ The European Commission (2024), Draghi's report on the future of European competitiveness: a blueprint for Europe's demographic and regional cohesion, accessed November 2024.

⁵ Savills, European Office Occupancy Rates, November 2024.

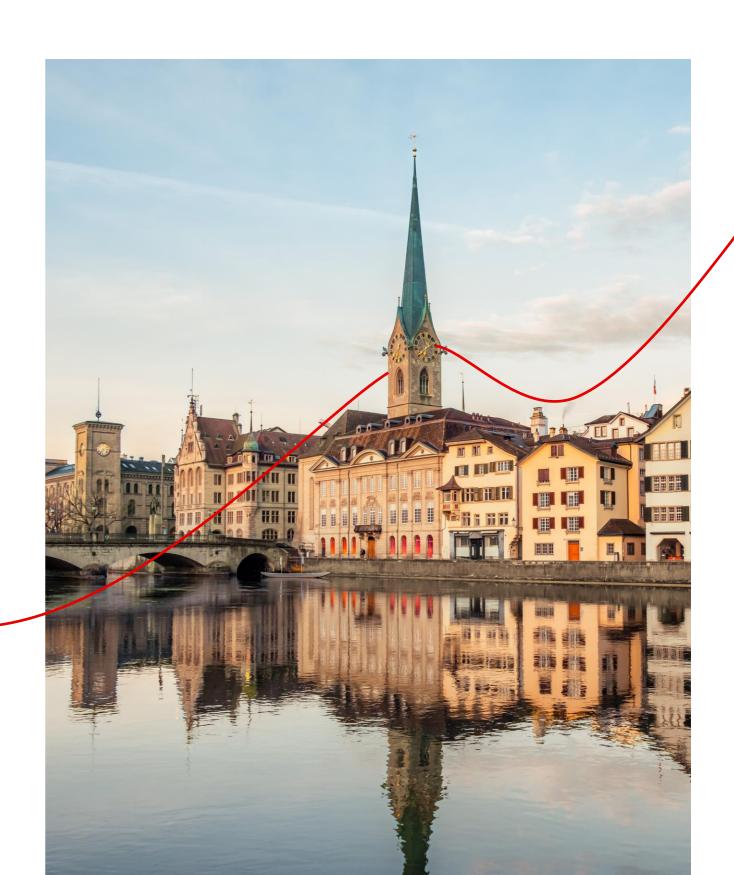
Switzerland real estate

Confidence returns

"The turnaround in interest rates has brought momentum back to the Swiss real estate market as yields are stabilizing and the risk premium is normalizing."



Kerstin Hansen Research Analyst – Real Estate DACH



Interest rate cuts driving momentum

Swiss economy performs solidly in a turbulent global environment

The macroeconomic environment in recent years has been anything but calm. The pandemic and the resulting economic slump were followed by inflation, interest rate hikes, and the associated fears of recession as well as geopolitical upheaval. The resulting uncertainty is also reflected in economic sentiment. The Purchasing Manager Index (PMI) has been continuously below the growth threshold of 50 points for manufacturing since January 2023. Germany is one of Switzerland's most important trading partners and the weakness of its industry is impacting the Swiss manufacturing sector. With a range of values between 43 and 57 points since the start of 2023, the PMI for services paints a somewhat less gloomy picture than the manufacturing index, but its high volatility still reflects the increased uncertainty.

After moderate annual growth of 0.7% in 2023, and 0.5% in the first quarter of 2024, the Swiss economy was able to record slightly above-average growth of 0.7% in the second quarter despite the lack of tailwind from abroad. Growth was boosted by strong expansion in the chemical and pharmaceutical industry. However, the labor market is not fully in line with the growth numbers in the economy. Following the significant employment growth of 77,200 full-time equivalents (FTEs) in 2023, employment growth in the first half of 2024 was relatively moderate at 26,900 FTEs. Similarly, the unemployment rate has risen from 2.2% in January to 2.5% in September. Overall, growth of 1.4% is expected for 2024, which represents a significant improvement compared to last year though still below the trend growth rate of 1.6%.

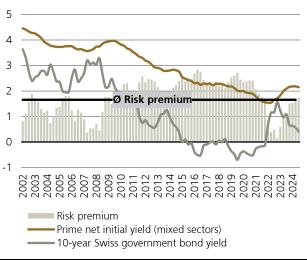
Low inflation allows the Swiss National Bank to lower interest rates

In contrast to other European countries and the US, inflation in Switzerland has remained within the target range of the Swiss National Bank (SNB) of 0-2% for more than a year now. Furthermore, over the third quarter of 2024, inflationary pressure in Switzerland fell further. Imported goods in particular have had a deflationary effect since November 2023. However, the year-on-year rate of change for domestic goods also no longer exceeded the 2% mark in 2024. Accordingly, the SNB lowered its interest rate by another 25 basis points to 1% in September. With the strengthening of the Swiss franc and the easing of energy prices, the SNB also revised its conditional inflation forecast significantly downward in the September meeting. This means that two further interest rate cuts of 25 basis points each are currently expected in December 2024 and March 2025.

Risk premiums back above long-term average

Swiss real estate investment lost some of its attractiveness in the past two years, but investor sentiment has improved considerably again in 2024, thanks, at least in part, to the normalization of the risk premium. At around 175 basis points, the risk premium for direct real estate investments is back just above the level of the long-term average since 3Q24 (see Figure 1). In addition to the significant decline in yields on Swiss Confederation bonds, the corrections in real estate yields over the past 24 months has been a contributing factor. Compared to the low point in the first half of 2022, prime yields in the residential segment have risen by a total of 65 basis points and prime yields in the retail segment have also risen by 53 basis points. The comparatively low corrections in the retail segment can be explained by the lower yield compression in this segment during the pandemic due to the boom in online retail.

Figure 1: Risk premium back to long-term average Yield on 10-year Swiss Confederation bond, net initial yield on prime real estate and resulting risk premium (%)



Source: Wüest Partner; Swiss National Bank; UBS Asset Management, last data point: 3Q24, November 2024.

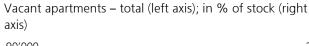
Residential properties, on the other hand, experienced strong yield compression during this period, which resulted in a somewhat stronger correction after the interest rate turnaround. In the case of office properties, the change in conditions in the capital markets was amplified by structural shifts that are putting additional pressure on the segment. As a result, office properties worldwide have suffered the sharpest corrections in the past two years. With an increase of 70 basis points, office yields in Switzerland also experienced the most significant correction, although – by international comparison – this remains very moderate. Over the course of this year, yields across all segments have stabilized and have even started to come down slightly in the third quarter of 2024. The resulting brightening in sentiment becomes clear when comparing this year's capital market transactions with those of the past two years. With CHF 3.6 billion of raised capital (debt and equity), total capital market transactions in 2024 exceeded the total of last year by 76% at the beginning of November.

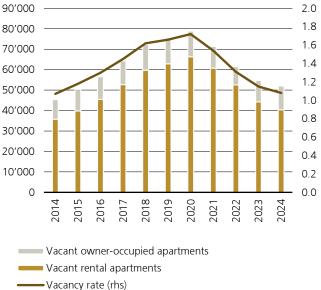
Population growth continues to drive demand

Demand for rental apartments remains high

The fundamentals of the Swiss housing market remain very positive. Following the record figure in 2023, net immigration is down year-on-year at just over 58,000 between January and September 2024, but remains at a high level. As a result, demand for rental apartments continues to rise sharply, while the increase in supply, with 38,000 residential units approved for construction over the past 12 months, is only slowly recovering from very low levels. This means that the vacancy rate has fallen further from 1.15% in the previous year to 1.08% at present. The decline was once again driven by rental apartments, where the vacancy rate fell by 8.6%, while 9.5% more owner-occupied units were recorded (see Figure 2).

Figure 2: Vacancy rate continues to fall





Source: Federal Statistical Office, last data point: June 2024, September 2024.

As a result, the ongoing shortage is driving rents up further: according to Wüest Partner, asking rents rose by 6.4% across Switzerland in 2Q24. Growth remained strong in the third quarter as well at 3.8% year-on-year, despite the already strong increase of 3.9% in the same quarter of the previous year.

Last year, two increases in the mortgage reference interest rate of 25 basis points each in June and December 2023, also led to an increase in existing rents in the rental apartment market. As the reference interest rate is based on the volume-weighted average interest rate of the outstanding mortgage receivables of Swiss banks, no further increase in the reference interest rate is expected due to the recent fall in mortgage interest rates. However, due to the high proportion of fixed-rate mortgages, the interest rate level for part of the total mortgage portfolio continues to rise or at least remain stable (depending on the term and time of refinancing) despite the rate cuts. This means that changes, such as the current fall in interest rates, are reflected in the reference interest rate with a certain time lag.

Population growth also supports commercial markets – despite structural challenges

In addition to the turnaround in interest rates, the commercial real estate market continues to be affected by the ongoing uncertainty regarding future space requirements in light of hybrid working models and the growth of online shopping. On top of that came little dynamic from the economy, to which the commercial segment is inherently more sensitive than the housing market. Despite these adverse circumstances, the commercial segments of the Swiss real estate market are relatively robust.

Employment growth is having a stabilizing effect on the office space market. At 26,900+ full-time equivalents, growth slowed somewhat in the first half of 2024 but remained positive. It also helps that, according to CBRE, Swiss companies have an above-average office presence by international standards. As a result, vacancies in Swiss office locations remain largely stable. Demand for office space in prime locations in particular remains high. As secondary properties are in an increasingly difficult situation in the wake of space consolidation, the result is a polarization of the rental market.

This is reflected in the varying development of rents: while prime rents have risen by 4.1% since the start of the pandemic, average rents have fallen by 5%. The situation on the retail market is similar: according to Wüest Partner, rents for retail space fell by another 0.3% in 3Q24 quarter on quarter. By contrast, rents in prime locations, which are also supported by the return of tourists, have risen significantly, particularly in Zurich.

APAC real estate

A brighter path ahead

"Investor appetite is improving on the back of benign macro and the start of a rate-cutting cycle. Liquidity is already recovering in several markets and we think expected returns have bottomed out. More opportunities are bound to emerge next year."



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



Staying the course

The economy

APAC GDP expectedly slowed in recent quarters amidst a tight monetary backdrop. Nonetheless, the slowdown was gradual and most economies stayed largely resilient. Exports generally improved this year driven by a tech upcycle. Oxford Economics has upgraded its forecasts several times this year. It now expects APAC GDP to grow 3.9% in both 2024 and 2025, compared to 4.4% in 2023. 3Q24 numbers, so far, are still painting broadly the same story: falling inflation, a healthy job market, improving external trade and resilient consumption.

Overall, the macro seems to be chugging along. However, there could be downside risks on the horizon. The political landscape has shifted rather meaningfully and could risk throwing a spanner in the works. A Trump presidency is now the reality, which could have ramifications on geopolitics and trades. The immediate risk is a 60% US tariff threat on China. If this comes to pass, UBS Investment Bank (UBS IB) estimates it could lead to a 250bps drag on China's GDP growth with half the impact coming from a decline in net exports and the rest from an indirect impact on consumption and investment. Some mitigation is expected from potential policy support which could limit the negative drag to 150bps. It remains to be seen how China will react. Encouragingly, there has been some positive changes in the government's attitude since September after a long period of lackluster policy responses.

The impact on other APAC countries is less clear at this point. A weak China typically spells bad news for the trade-reliant region. However, trade re-routing, supply chain re-alignment and a stronger US growth could play offset. Vietnam, India and ASEAN, for example, could be relative beneficiaries from the adjustments in supply chain.

We think higher US bond yields and a stronger USD have negative implications for APAC. The former keeps costs of capital elevated while the latter may restrict the ability of APAC central banks to cut rates. For now, the consensus still broadly expects the same trajectory for interest rates. UBS IB forecasts US Fed to cut another 25bps in December and 125bps in 2025.

In APAC, South Korea started to cut rates in October 2024 and could deliver another 125bps cuts in 2025. Australia is holding still and expected to only start reducing rates in May 2025. Japan's situation is more complex. The loss of a majority government casted doubt on whether the Bank of Japan (BoJ) would continue its policy normalization. Now, a stronger USD outlook post the US election may force its hand to carry on. UBS IB continues to expect a 25bps hike in December 2024 and two more in 2025. USD/JPY are now expected to stay at the current 155-160 levels for the next two years.

Leasing and capital markets

APAC leasing activity was mixed in 3Q24. According to CBRE, office net absorption was flat QoQ but was still up YoY on a 9M basis driven by demand from tech and finance sectors. Logistics space take-up continued to normalize from pandemic-highs as occupiers became cost-conscious. Coupled with elevated supply, vacancy rates rose and rents fell driven by China and Hong Kong. Australia remained the bright spot. The retail sector stayed resilient with stable rents and lower vacancies despite moderating sales performance.

In the capital markets, transaction activity is still weak in 3Q24 but starting to show signs of recovery in markets that have seen significant repricing. According to MSCI (see Figure 1), APAC volumes for the quarter improved 6% YoY off a low base. Australia (+20%) and South Korea (+24%) rebounded after significant repricing. Singapore jumped 520%, boosted by a huge industrial portfolio transaction by Warburg Pincus and Lendlease. China also improved 15% with distressed deals making up nearly a quarter of volume. Offsetting this was Japan (-46%), though MSCI data here typically gets revised up. By sector, the recovery was broad-based except for the hotel sector (-26%).

Cap rates are starting to stabilize in most countries. In Australia, Melbourne continued to expand in 3Q24, while Sydney was stable for office and compressed 10bps for industrial. China was an outlier where cap rate expansion seems to be gaining pace across all sectors. Broadly, we think the cap rate upcycle is nearing the end. Elevated interest rates could trigger further increases but likely marginal. This is evidenced by the revival of investment interest in key markets.

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

Does the recovery have legs?

APAC real estate market returns are showing signs of bottoming out. Based on MSCI data, Japan's total returns have improved for two consecutive quarters in the first two quarters of 2024, while Australia also delivered its first positive returns in 18 months. In the listed market, while Australia is the only country that recorded positive performance year-to-date, other REIT markets are also mostly up from their recent lows. Is the worst finally over?

In our base case, yes. However, the answer comes together with several ifs and buts. Importantly, interest rates will have to continue falling according to current market expectations. Also, inflation will have to stay well behaved. Further escalation in geopolitical tensions is a tail risk but the current assumption is for it to remain contained. Barring unforeseen events, the current macro setting, as covered on the previous page, should be supportive of a continued recovery in real estate.

We think the current yield expansion cycle is nearing an end. Overall, we expect there may be a bit more to go at varying degree by market. Comparing the current yield spread to the long-term averages should provide a good indication, though the changes in fundamentals should also be taken into consideration. For example, the industrial sector in general should justify a tighter yield spread than in the past, as its stronger growth profile supercharged by e-commerce is a relatively recent phenomenon. Similarly, Japan's emergence from its deflation past also renders any historical comparison less meaningful.

Broadly, we estimate that the 3Q24 real estate yield spread is still at about 25-50bps below 'fair' levels. In other words, current real estate valuations are already factoring in interest rate cuts to some extent. If this fails to or takes longer to play out, we think there would be risks of further cap rate expansion. By sector, retail yield spread is almost on par with the 10Y pre-pandemic average, implying a relatively 'fair' cap rate. Office yield spread is still 40bps below historical average, implying potentially more expansion if bond yields stay elevated. Industrial yield spread is furthest away at 140bps below its historical average. Some further expansion is possible, but we do not expect the gap to be fully closed given its stronger fundamentals and investor interests (see Figure 2).

By country, Hong Kong has the tightest yield spread and likely most vulnerable to further correction. This is followed by Singapore, though its strong macro and long-term capitals are likely to provide support. Australia is close to average but not quite there yet (25-50bps below). At the other end of the spectrum, China has the highest yield spread and above historical average. The same analysis would imply upside potential, but we think China is an

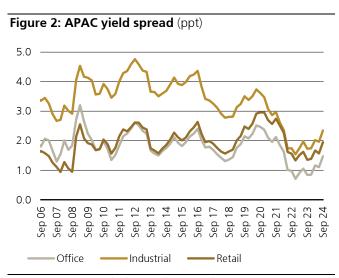
anomaly. Investors are likely baking in higher risk premium given its weak fundamentals and geopolitical risks.

Revival in Australia and South Korea

Australia and South Korea have witnessed consecutive quarters of volume recovery this year. In 9M24, transaction volume jumped 14% and 25%, respectively, outperforming the APAC average of +3%. This indicates that yield spreads for both markets are now at more palatable levels for investors to bite.

In Australia, cap rates expanded the most among other APAC markets with logistics and office up close to 150-200bps since mid-2022. Logistics capital value held firm thanks to a positive offset from phenomenal rental growth. Meanwhile, office capital values fell 20-30% for prime assets in Sydney and Melbourne. The decline was similar to the GFC period despite limited distressed deals. It is no wonder many overseas investors are taking the plunge. For example, three companies from Singapore have each picked up a prime building in Sydney this year.

In South Korea, 9M24 volume has already recovered to 5% above 2019 levels. Logistics made a comeback and rebounded 52% YoY following cap rate expansion of 70bps since early-2023 (120bps since mid-2022). While the repricing has not been as great as in Australia, South Korea's yield spread has improved significantly due to meaningful improvements in the financing environment. For example, 5-year interest rate swap has fallen 90bps from the 4Q22 peak to about 2.9% in 3Q24 on the back of falling inflation expectations. Meanwhile, office cap rates have not expanded much (+30bps) but continues to garner strong investor interests due to its robust rental outlook.



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

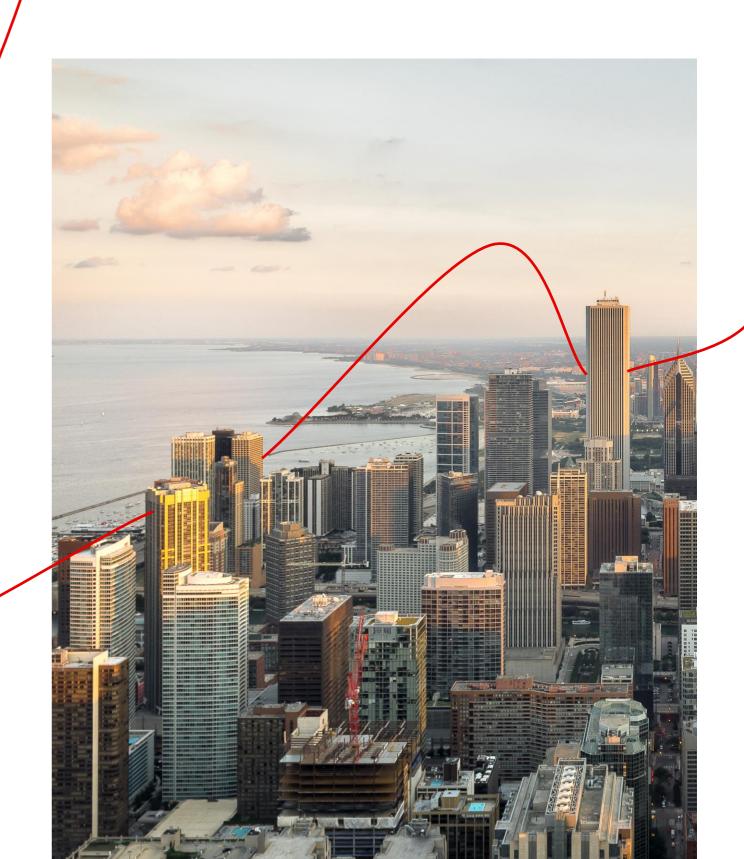
US real estate

Things are looking up

"The Federal Reserve is finally cutting rates. US transactions volume is increasing year-over-year. Even though prices may not quite be at bottom, income returns are high enough to offset lingering depreciation, turning returns positive - for all but the Office sector. Leading indicators signal continued improvement in US real estate markets, and recovery has begun."



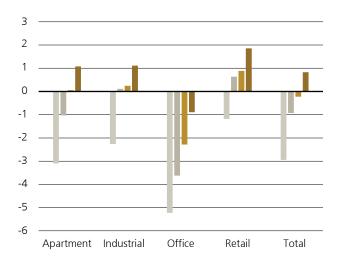
Tiffany B. Gherlone Head of Real Estate, Research & Strategy – US



Signaling improvement

Leading indicators signal continued improvement in US real estate markets, and recovery has begun. Interest rates are volatile, but as of early November 2024, rates across the yield curve remain below their Spring 2024 highs. As competition for high-quality investments increases, lenders are charging lower spreads than earlier in the year. Transaction volume is poised to grow, and quarterly returns turned positive for all but the troubled office sector (see Figure 1).

Figure 1: Quarterly total returns (%)



■4Q23 ■1Q24 ■2Q24 ■3Q24

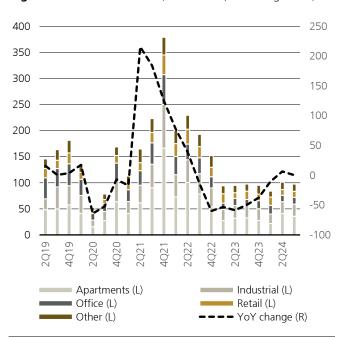
Source: Expanded NCREIF Property Index, September 2024. **Past performance is not a guarantee for future results.**

Still, the downturn is not completely over for private real estate investors. The unlevered NCREIF Property Index declined for seven consecutive quarters from 4Q22 to 2Q24 but posted a positive total return of 0.8% in 3Q24. Income return of 1.2% offset mild depreciation of -0.4% to lift the index into positive territory. Throughout this recent downturn, net operating income growth remained positive for all but the office sector, which softened the negative effect of higher interest rates and rising cap rates. It's likely that income growth will continue to carry the day during much of the recovery.

In November 2024, the US held a pivotal election where the balance of power shifted firmly to the conservative party. We cannot know with certainty what policies will be enacted in the coming years. Relative to a pre-election forecast, expectations are that taxes, regulation, and immigration will be lower; while tariffs, inflation and interest rates will increase. Higher interest rates – fueled by inflation and deficit spending – would weigh on the private real estate sector, but the drag would be more than offset by lower taxes, less regulation and rental rate gains. Ultimately, the results of the US election should boost the real estate sector in the near-term, and recovery should remain intact.

The Fed's decision to begin lowering rates signals a turning point for commercial real estate, but for a true bull market to take effect, transaction volume must increase substantially, creating comparable sales and building pricing confidence. During 3Q24, transaction volume was flat compared to a year earlier at USD 97 billion. Property owners can resist the discounted prices demanded by buyers as net operating income continues to grow across most sectors.

Figure 2: US transactions (USD billion, % change YoY)



Source: MSCI Real Capital Analytics, September 2024. **Past performance** is not a guarantee for future results.

Primary sectors

Figure 3: October US real estate return expectations

Total return (%)	2021	2022	2023 f	2024 orecast	3-year forecast
Apartment	6.9	(3.2)	(3.1)	0.4	6.4
Industrial	13.3	(3.6)	(2.3)	1.8)	6.5
Office	1.8	(4.6)	(5.2)	(8.7)	2.3
Retail	2.2	(1.6)	(1.2)	3.5	6.9

Source: Forecasts – PREA Consensus Survey, August 2024. Total return: NCREIF as of September 2024. Data shows unlevered NCREIF Property Index total returns. **Expected / past performance is not a guarantee for future results.**

Apartments

The US apartment sector continues to stabilize as low unemployment and moderating inflation support tenant demand for rental units. Outpacing new supply, growth in demand pushed the national vacancy rate down to 5.3%. Rents increased marginally by 0.3% year over year (YoY). Values are down, and buyers are taking advantage of the possibility of buying at discounts. Apartment transactions totaled USD 35.8 billion during 3Q24, an increase of 9% YoY that followed a 27% annual increase the prior quarter. Nationally, the ODCE NPI apartment sector delivered an annual total unlevered return of -3.3% in the year ending September 2024. Values during 3Q24 remained unchanged, a welcome turnaround after seven quarters of depreciation. As supply rates decrease over the next three years, apartment returns should improve (see Figure 3).

Industrial

Even as demand is contesting with the tail-end of a wave of new supply, total returns for industrial remain positive. New deliveries pushed the availability rate up by 10bps over the quarter and 180bps over the year to 8.3%, the highest national availability rate in eight years, and industrial rents rose by just 1.6% YoY. However, new leases are being signed at rent levels that have increased 25% over the past three years. Transaction volumes picked up slightly during the quarter, down 2% from a year ago and compared to a decline of 6% during the previous quarter. For the first time in seven quarters industrial values rose for ODCE NPI industrial, increasing by 0.025%. Over the past year, total returns declined by –0.8% but momentum is positive. Year-to-date 2024, industrial returns are up 1.3%.

Office

The US office market is a long way from stabilization, but there was one spot of good news during 3Q24 when vacancy rates held steady at 19.0%. Leasing demand was weak but positive for class A properties in both Suburban and Downtown locations; while lower-quality office buildings struggled with tenants giving back space and low

leasing velocity. Risk premiums available in the capital market are not yet high enough to entice buyers or encourage lenders to become more active. Office transactions totaled USD 57 billion in the year ended September 2024, compared to USD 153 billion in the year ended September 2022, before the one-two punch of increased work-from-home and higher interest rates. ODCE NPI office delivered a total unlevered return of –13.3% in the year ending 3Q24, which was less negative than last quarter's performance. The extreme depth of the downturn may have passed for the office sector, but recovery back to pre-pandemic occupancy and values is expected to take many years.

Retail

US retail investments are well into recovery after three consecutive quarters of positive total return. During 3Q24, NPI retail returned 1.9%, including an appreciation return of 0.5% during the quarter. Solid demand for retail space, combined with minimal new development, kept occupancy at a record high. As shown in Figure 4, occupancy remained unchanged over the quarter at 93.5% in 3Q24 and was 10bps higher than a year ago. Buyers are not yet responding to retail's strong fundamentals; though lower interest rates should help increase transactions over the next few quarters. Retail transactions totaled USD 11.6 billion during 3Q24, which is down 27% compared to a year earlier. For the year ended September 2024, NPI retail increased 2.2%, the only major commercial real estate sector to boast positive performance over the full year.

Figure 4: Sector fundamentals (Completion rate, %) 40 100 3.5 95 3.0 90 2.5 2.0 85 1.5 80 1.0 75 0.5 0.0 70 Industrial Supply (left) Occupancy (right)

Source: CBRE-Econometric Advisors, September 2024. Note: Completion rates shown are the total supply delivered within the year as a percentage of inventory. Past performance is not a guarantee for future results.

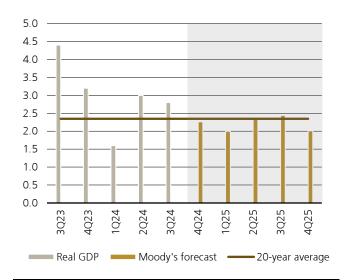
Light at the end of the tunnel

Economic viewpoint

Recovery is beginning for private real estate as the transaction market finds its footing and total returns turn positive, supported by an outlook for continued growth in the economy and lower borrowing costs. After several quarters of guessing and mixed economic results, the labor market and inflation cooled enough to allow the Federal Reserve to begin cutting rates. US economic growth remained strong as GDP increased by an annualized 2.8% during the third quarter of 2024 (see Figure 5). US GDP is growing at or near potential, which helps maintain positive momentum in real estate space markets and net operating income growth.

Consumption typically accounts for two-thirds of the US economy. During the year ended September 2024, consumers remained the key driver of growth with spending coming in above consensus expectations at 3.7%. Nonfarm payrolls also remained robust during September with an increase of 254,000 jobs, well above expectations. During the same period, the unemployment rate decreased slightly to 4.1% and wage growth accelerated, rising by 4.0% YoY.

Figure 5: Real GDP quarterly annualized forecast (%)

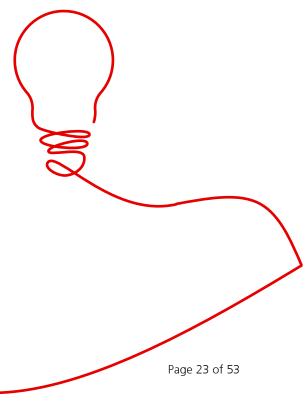


Source: Moody's Analytics as of October 2024. Note: Shaded area indicates forecast data. **Past performance is not a guarantee for future results.**

Current consensus is for approximately one Federal Funds Rate cut per meeting until mid-2025. If consumer spending and labor market conditions remain strong, the Federal Reserve has room to slow the pace of rate cuts somewhat. However, many datapoints still show a cooling labor market, which would entice more easing, especially with inflation nearing target.

While not yet at its 2% target, inflation is trending lower. During September, the US economy recorded a 2.1% YoY increase in the Fed's preferred inflation metric, the core personal-consumption expenditures index, which excludes food and energy. Further rate cuts anticipated this year and in 2025 would continue to support economic growth, real estate revenue and investor optimism.

If policy changes cause tariffs to increase and taxes to decrease, inflation may reverse course and move higher. Higher inflation would likely prompt the Fed to pause rate cuts or even move the Federal Funds Rate up to slow the pace of inflation. In fact, the market is already pricing in higher inflation expectations which has caused interest rates in longer-dated bonds to increase. Thus far, those increases have not been enough to alter our view that strong income growth with tailwinds from decreasing supply creates more than enough momentum to sustain improvements in commercial real estate markets. The Fed should continue to lower rates on the short end of the curve, which will help control the cost of debt. As a result, the recovery in US private real estate markets remains on track.



| Artificial | Intelligence

The next transformative technology

"What was once just a buzzword, is now reshaping industries and creating an environment ripe with investment opportunities. This transformative force is driving efficiency and innovation across industries and sectors, including real estate."



Fergus Hicks Real Estate Strategist



A technology with great potential

Al and the economy

Al has the potential to reshape the real estate sector. It can improve the investment process and enhance the asset and property management functions. We also expect Al to create attractive real estate investment opportunities and allow investors to access new markets. Al may be the next transformative technology, and although its potential has been increasing for years, the more recent expansion of accessible tools such as ChatGPT have made it mainstream and the potential for Al has helped push equity valuations higher.

In the broad sense, AI refers to the use of machine learning and deep learning algorithms to study data to predict future behavior or trends, mimicking some human cognitive functions. It's hoped that AI will have a major impact on the economy as its further integration into the jobs market will help to enhance overall productivity. It could mirror the period running up to the millennium when more widespread use of computing saw strong productivity growth. In the US, Oxford Economics expects the use of generative AI to assist and automate workplace tasks and boost annual GDP 2.9% by 2032. The productivity of the overall US workforce is expected to rise by more than 10% over the same time period. Hence, generative AI has the potential to significantly raise the outlook for GDP growth in the US and other countries too.

Despite the prediction that AI will help enhance productivity, the key questions are which jobs are at risk of being displaced and which ones will be enhanced by AI. This has important implications for the real estate sector. On the one hand, productivity enhancing AI can boost overall job numbers if innovation spurs a sector and causes demand to grow in excess of the productivity gains delivered by AI. On the other hand, if output is static, productivity advances can see the same amount of output produced with fewer hours from people required.

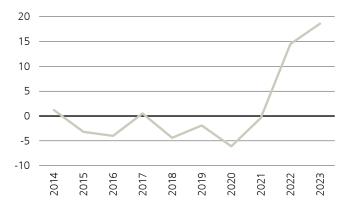
Al as a technology is still in its early phases and will likely impact the economy in ways not yet envisaged. The wide range of outcomes means there is significant uncertainty about the future of Al and its impact on the labor market. The downside is greater structural unemployment due to job displacement, while the upside is net job creation and productivity enhancements. The overall impact will vary by sector. However, Oxford Economics estimates that over 9% of the current US workforce will be displaced by generative Al by 2032. The affected workers are predominantly in the office-using sectors such as information, professional, scientific and technical services. This will likely present some headwind to future space demand for offices.

Al and real estate investment

Ultimately, real estate values are determined by the income that assets generate, its expected growth trajectory and the discount rate applied to those income streams. The discount rate in turn is determined by market interest rates and the risk premium applied, which itself relates to the risk and volatility of expected income flows. Properties which generate outsized income growth compared to expectations will tend to generate higher returns than expected. Hence, when assessing real estate investment opportunities which might arise from AI, we should focus on the impact on the overall demand for space from occupiers, the ability of occupiers to pay rents and any impact on the volatility of income flows and risks associated with them. Finally, we also need to consider how responsive supply is.

The most obvious investment opportunity arising from the widespread adoption of the technology is data centers, the engine room of Al. As companies incorporate Al into their businesses, they will require more computing power, cloud-based data and data center capacity. As such, data centers and towers present both short-term, potentially higher returning development opportunities, and also longer-term opportunities to acquire stabilized assets. Data centers have shown good rental growth, indicating strong occupier dema nd (see Figure 1).

Figure 1: North America data center rental growth (2014 to 2023, % YoY)



Source: CBRE; UBS Asset Management, April 2024.



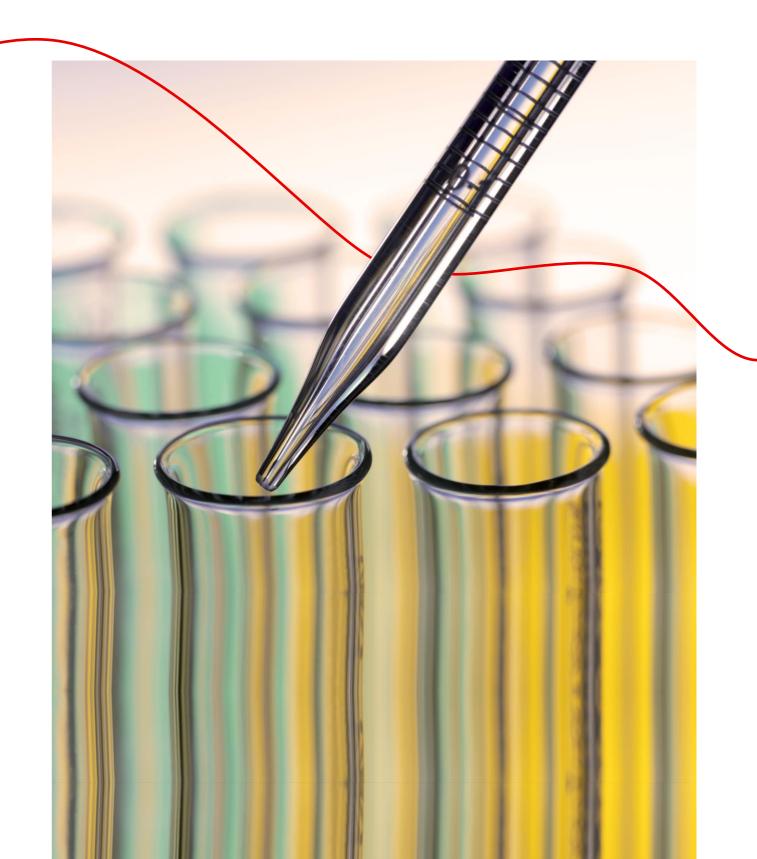
Life sciences real estate

Adapting to a new normal

"If European governments plan on making it easier for pharmaceutical companies and wholesalers to design, manufacture and distribute medicines within Europe, the industry will need more real estate to be able to meet such a challenge."



Olaf Margeirsson Head of Real Estate, Research & Strategy, Europe ex DACH



Creating space in face of developing geopolitics

Earlier this summer, we made the case that the real estate assets meeting the needs of the life sciences industry in Europe had the potential to deliver attractive risk-adjusted returns to investors.

The drivers are numerous, including attractive demographics, worldwide improvement in income and living standards, and exciting new technologies (e.g., new modal techniques in drug administration and artificial intelligence) that need the right real estate assets to be realized. However, another factor deserves special attention: geopolitics and its impact on supply chains.

In 2023, widespread medicine shortages took place in Europe, a continuation of a trend from the COVID-19 pandemic. According to the European Association of Hospital Pharmacists (EAHP), 95% of European hospitals experienced some sort of shortages of medicines in 2023, up from 86% in 2014. In 2022, 55% of hospital pharmacists reported more than 10 times a shortage of medicines that have only one manufacturer. The shortages frequently caused delays in patient assistance, suboptimal treatment or altogether cancellation of care.¹

The supply chain in pharmaceuticals is complex and fraught with breaking points

The medicine supply chain in Europe is a complex and multi-layered system, which means that it has multiple potential breaking points.

Manufacturing

Medicines are produced by pharmaceutical companies, both inside and outside of Europe. This involves the synthesis of active pharmaceutical ingredients (APIs) and the formulation of these APIs into final, consumable products. Worryingly for Europe, a large part of the API market is supplied by Indian and Chinese companies, exposing European producers and patients to geopolitical risks. Furthermore, almost half of the quality certificates needed for drug APIs to be used in Europe are held by Chinese and Indian companies.² The countries' share of final products is also often large. In 2020, China controlled more than 80% of the tetracycline/doxycycline (a type of antibiotics) supply, nearly two thirds of vitamin B1 and nearly half of all aspirin.³

Regulation and Quality Control

The European Medicines Agency (EMA) and national regulatory bodies oversee the approval and quality control of medicines. This includes making sure that drug manufacturers outside of Europe are fulfilling quality standards. And, again, geopolitical risks are abound. Earlier in 2024, western pharmaceutical companies that have manufacturing sites in China ran into issues in certifying the quality of their production because China, on the back of newly adopted Chinese anti-espionage laws, threatened to arrest the inspectors as they'd be collecting data on Chinese manufacturing sites. The German Medicines Manufacturers Association (BAH) was amongst the industry bodies pointing out this problem.⁴

Distribution

Once manufactured, medicines are distributed through a network of wholesalers and distributors. This requires real estate units to store and transport medicines while ensuring they remain in optimal condition.

Pharmacies and Hospitals

Medicines are then supplied from distribution hubs to pharmacies and hospitals, where they are dispensed to patients.

European governments took notice

To improve supply chain security, European governments have already introduced measures. For example, the Swiss government, in August 2024, introduced measures to ease the imports of critical medicines and to build up and maintain a compulsory minimum of certain medicines in stock in the country. A closer cooperation with producers was encouraged, including increased domestic production capacities of critical drugs. 5 The EU commission, back in 2023, introduced steps to prevent the shortage building up further. This included planned measures to diversify supply and modernize the production of critical medicines, especially within Europe. 6 The Commission also wants to reform the EU legislation on pharmaceuticals.7 Amongst the aims is to create a true single market for medicines within Europe, to promote competitiveness and innovation within the pharmaceutical industry, improve access to affordable medicines and ensure the future supply of drugs in general.

And most recently, the report on The Future of European Competitiveness – authored by Mario "whatever it takes" Draghi – drew attention to the structural necessity of the pharmaceutical industry in general for Europe:

"Pharmaceuticals is also a sector of geostrategic importance... The capacity to swiftly develop, produce and administer vaccinations was crucial in allowing the EU's economic recovery."

What does all this have to do with real estate?

If European governments plan on making it easier for pharmaceutical companies and wholesalers to design, manufacture and distribute medicines within Europe, the industry will need more real estate to be able to meet such a challenge.

In fact, the market is already short on space. As an example, vacancy rates in wet labs in Europe are commonly around or below 5%.8 In-place demand for space that is not being met was around 30% of existing stock back in 2023.9 Prime space is consequently seeing strong rental growth - 36% and 15% YoY in Cambridge and Oxford respectively in 20238 – despite the around 40% drop in venture capital funding from the peak in 2021 to 2023 on the European level. Furthermore, a vast net of distribution hubs, i.e., warehouses, must be built to meet any government-ordered requirements of minimum stock of critical medicines. That same net of distribution hubs must be able to act as storage hubs for medicines rolling off the conveyor belts at new medicine production points, which also must be built, across Europe if politicians' plans of improved supply chain security is to be met.

There are many things that can go wrong. Perhaps none of the governments' plans will come to fruition and Europeans will simply accept being exposed to increased supply chain risks in the future. But real estate investors focusing on the life science industry in Europe may, in the alternative scenario, be at the cusp of an era where European governments make it easier for them to build much-needed space for European pharmaceutical companies across the whole pharmaceutical supply chain.

- ¹ EAHP 2023 Shortage Survey Report, accessed September 2024.
- ^{2,3} The great medicines migration Nikkei Asia. April 2022, accessed September 2024.
- 4 Pharma groups warn of supply crunch over China spying law (ft.com). April 2024, accessed September 2024.
- ⁵ Medikamentengpässe: Der Bund präsentiert neue Massnahmen News SRF. August 2024, accessed September 2024.
- 6 Stepping up action to prevent shortages of medicines in Europe European Commission (europa.eu). October 2023, accessed in September 2024.
- 7 Reform of the EU pharmaceutical legislation European Commission (europa.eu). May 2024, accessed in September 2024.
- 8 Life sciences trends and outlook 2024, Savills. April 2024, accessed September 2024.
- ⁹ Golden Triangle Lab Space Demand Continues Despite Shortage Of High-Quality Stock, Cushman & Wakefield, August 2023, accessed September 2024.



Sustainable investing

Net zero pathways in real estate

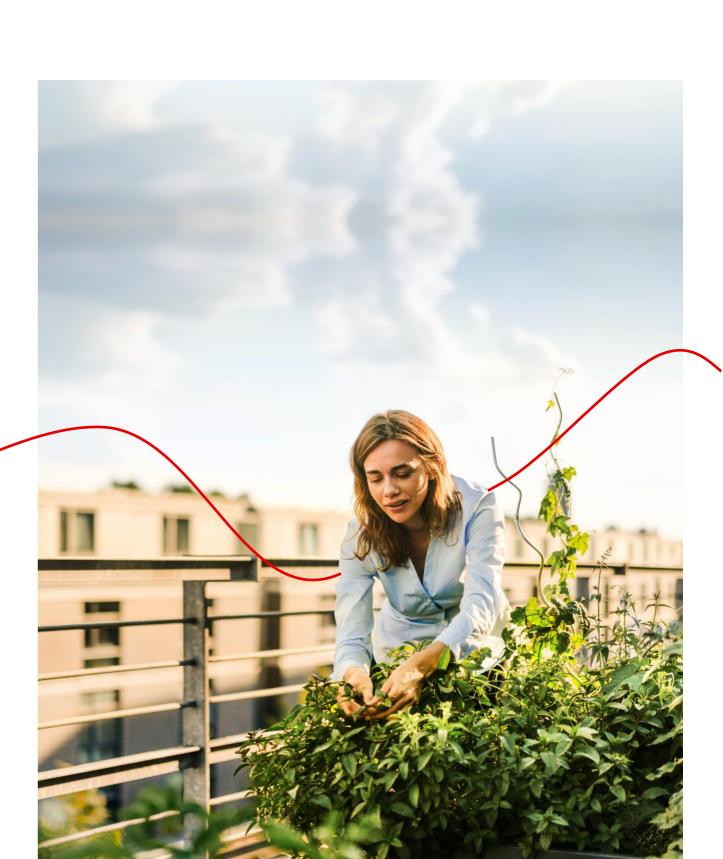
"Net zero pathways help make the long-term decarbonization trajectory tangible, enabling real estate managers to review the impact of their planned decarbonization measures regularly."

Olivia Muir Head of Sustainability, Real Estate & Private Markets



Peer PetersenSustainability Specialist,
Real Estate & Private Markets





Not all net zero pathways are created equal

Improving real estate's sustainability profile is pivotal to addressing climate change, as the sector contributes some 40% of global greenhouse gas emissions. But improving this sustainability profile isn't just a 'save the world' exercise: for building owners and associated stakeholders it is also vital to establish the necessary long-term action plans towards net zero to protect income streams and value and manage costs.

The current trend is towards publishing net zero pathways

Investors are demanding more precise disclosures to compare different investment products, not only in terms of returns or risks, but also progress towards reducing greenhouse gas emissions.

Net zero pathways represent a product's timeline of the 'path to net zero' based on the underlying real estate asset's operating emissions. Therefore, such pathways are helpful tools for comparing investment products' climate ambitions and progress over time. Additionally, net zero pathways help make the long-term decarbonization trajectory tangible, enabling real estate managers to review the impact of their planned decarbonization measures regularly.

While real estate managers in most countries have yet to publish net zero pathways for real estate investment products, large institutional real estate managers in Switzerland are already disclosing their pathways. Moreover, we expect this to prevail across other markets in the near term. As is so often the case, disclosure and transparency are the first necessary steps before we can assess actual progress and performance.

But, the devil is in the detail. Disclosure alone is not enough

Currently, there are no binding industry-wide standards for calculating and presenting net zero pathways. Thus, real estate managers and investors can only loosely compare real estate products' pathways as approaches, parameters and assumptions vary by product. Until industry-wide standards are established, investors should scrutinize the detailed assumptions and parameters applied by real estate managers in their net zero pathways. Not all pathways (and disclosures) are created equal.

Top five pivotal questions to ask when considering net zero pathways:

1. Which types of emissions have been considered in the net zero pathways?

Net zero pathways show the expected development of emission intensities over time, measured in CO2-equivalents (CO2e) per annum per reference area. When comparing projected emission intensities between products, it is vital that investors check which types of emissions and which reference area is considered. Owner-controlled emissions from real estate operations are assigned to Scope 1 or Scope 2.

- **Scope 1** emissions are direct emissions from the combustion of fossil fuels in gas or oil heating systems installed in the property itself.
- Scope 2 emissions are indirect emissions that arise from the purchase of district heating as well as electricity for central systems and common areas.
- **Scope 3 Category 13 emissions (3.13)** are indirect emissions that arise from tenants purchasing electricity in their rental spaces. They are heavily dependent on tenant activity with limited landlord control or influence. Large institutional real estate managers in the EU and the Americas are increasingly using the Carbon Risk Real Estate Monitor (CRREM) tool to calculate net zero pathways and as an internal planning and risk management tool. In addition to Scope 1 and Scope 2 emissions, Scope 3.13 emissions are also included.

The adoption of CRREM by real estate managers has grown substantially over the past few years and already surpassed USD 1.3 trillion AUM, yet it remains unusual for real estate managers to lay open their decarbonization pathways to investors. Switzerland is ahead on the transparency curve in this respect, with most large Swiss institutional real estate investors already publishing net zero pathways in their products' annual reports as good market practice. However, those net zero pathways to date include both Scope 1 and Scope 2 emissions, while excluding Scope 3.13 emissions.

While it is common in many markets to compare properties by Gross Floor Area, local market practices may differ. Since calculated emission intensities may vary widely depending on which scopes, greenhouse gas emission factors and reference area have been considered for the calculations, investors may need to adjust for such differences when comparing products, especially when doing so across geographies.

2. Which data has been used to define the baseline?

Net zero pathways start with a baseline, comprising an emission intensity at the outset of the decarbonization journey at year zero. To ensure an appropriate baseline, real estate managers should strive to use measured consumption and emission data for their properties. Where such measured data does not exist, which is often the case with Scope 3.13 data or with newly purchased or developed properties, real estate managers may depend on estimated data (often based on extrapolated previous periods' measured data).

Where consumption and emission data is completely unavailable, market standard benchmark data may have to be applied to fill any final gaps. Where sophisticated building software solutions are available, consumption and emissions may also be calculated through model estimations

To promote data quality, real estate managers should evaluate each asset's metrics with the support of sustainability specialists, regardless of the data sourcing method used. Where in doubt about the source of the applied baseline data, investors are advised to enquire regarding the details and steps undertaken.

3. Which future decarbonization measures have been considered in the net zero pathway?

A further component of net zero pathways is the application of bespoke decarbonization measures for each building over time, and the estimated resulting energy consumption and emission savings on property and portfolio level.

Reducing a property's energy demand can help decrease its Scope 1, Scope 2 and Scope 3.13 emissions and is generally the first priority in any decarbonization plan. For instance, improvements to the energy performance energy of the building envelope can materially reduce a property's energy consumption.

A change from fossil fuel-based heating systems to renewable heating systems helps reduce energy consumption and emissions, as do improvements to the energy performance or retrofits of the various MEP (Mechanical, Electrical, Plumbing) and other technical installations within buildings.

This list of potential measures is non-exhaustive and depends on the specific nature and state of each real estate asset. Producing electricity on-site with photovoltaic systems, is a further priority followed by purchasing off-site green energy, after maximizing energy efficiency.

4. How deep has the level of retrofit analysis been on a property level?

Portfolio net zero pathways are, by nature, high-level and do not give detailed insight into the considered retrofit measures for each underlying building. Furthermore, they do not give insight into the way energy consumption and emission savings from retrofit measures have been calculated.

Therefore, it is up to investors to request details on the methodology and calculations applied to each building level. Important questions to ask are: Have the retrofit measures been identified through an on-site energy audit of each property, or have they been identified merely on a desktop basis? Has the technical feasibility of retrofit measures been thoroughly investigated or have standard assumptions been applied across a portfolio? This will give investors valuable insight into the reliability of the real estate manager's decarbonization estimations.

Also, further clarity may be needed regarding the consideration of the effects of procurement of off-site green energy and carbon offsets, which should almost always be the last resort and final step in any decarbonization plan. It is helpful to understand to which degree a product's net zero pathway is driven by actual onsite improvements of energy efficiency and emission reduction, and to which degree the prognosed emission reduction may be driven by off-site energy purchases or offsets.

5. Have the retrofit measures in the net zero pathway been reflected in the product's capex planning?

The remaining time horizon to achieve net zero emissions by 2050 is just over a quarter of a century, yet real estate managers' capex budgeting horizon usually extends to a period of only 10 years. This leaves a time span of 15 years until 2050 in which retrofit measures are not necessarily accounted for in a typical capex budgeting cycle.

Since net zero pathways alone give no insight into the capital side of the retrofit planning, investors are advised to scrutinize the financial soundness of the net zero pathway planning by asking the following questions: Have the retrofit measures in the net zero pathway been fully considered in the capex planning?

Has this capex planning been fully reflected in the properties' valuations? Have long-term end-of-service-life retrofits been considered in both capex planning and valuations, and if so, how? Have retrofit costs been calculated on the basis of actual project references or on the basis of benchmark data, and do they comprise ancillary costs as well as any buffer for potential price rises?

The degree to which real estate managers can give insight to the cost component of retrofit planning can provide investors with vital clues regarding the financial soundness of a product's net zero pathway.

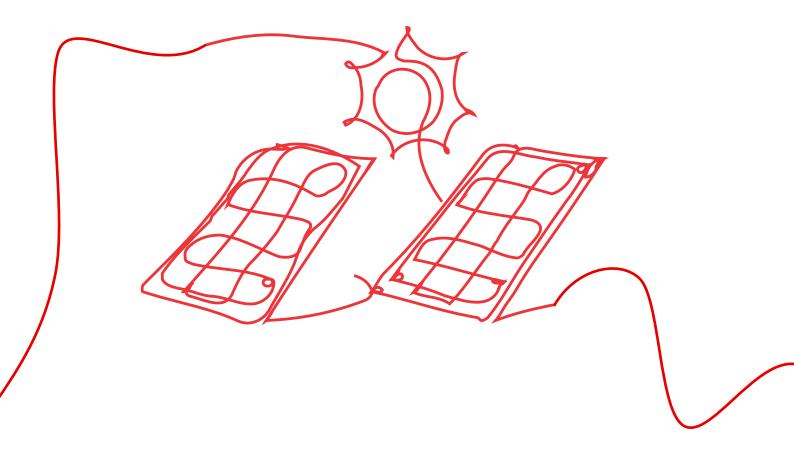
Conclusion

Until binding industry-wide standards have been defined for net zero pathway calculations, investors need to scrutinize the details of applied parameters when comparing pathways between different products. By asking the relevant questions, investors can play a vital role in driving ever higher transparency standards in net zero pathway reporting.

Leading real estate managers are monitoring net-zero related regulatory and market developments both in their home markets and internationally to act and plan with foresight. It is recommended that all real estate managers verify their net zero pathways and their respective capex budgeting for each property regularly.

In addition, if necessary, update the catalogue of measures to ensure that the pathway's implied annual targets are achieved as each year passes. Investors have an important part to play in continuing to engage and push their real estate managers to remain focused and ambitious in their net zero approaches. This holds them accountable by asking informed and sensible questions to raise the bar.

- World Green Building Council, Embodied Carbon World Green Building Council, worldgbc.org, 2019.
- ² The CRREM tool was developed as part of an EU-funded project. Excelbased and initially only available to EU member states, it now offers science-based reduction pathways for real estate in 44 countries in Europe, America, Asia and Oceania (Source: www.crrem.eu).
- ³ CRREM, ULI and Berkeley Lab Join Forces CRREM Project, 2023.
- 4 Switzerland for example uses an official reference area for emissions, reporting the so-called Energy Reference Area (in German 'Energiebezugsfläche' or 'EBF'), which is the sum of all floor areas above and below ground that lie within the thermal building envelope and require heating or air conditioning for its use.
- ⁵ Whereby using standard assumptions across a portfolio may allow real estate managers to identify key drivers for decarbonization across portfolios, on an individual property-level this may lead to misleading results. For instance, a property may have a listed historic façade where only minor energy-related improvements to the façade may be possible. Assuming a full energetic refurbishment of the façade might lead to an overly optimistic decarbonization prognosis of such a property.
- ⁶ From a grey emissions and capital allocation perspective there may be good reasons to schedule the exchange of major retrofit items such as the MEP and the building envelope at the end of their service life, which for recently constructed or exchanged items may be long after the 10 years capex budgeting horizon.



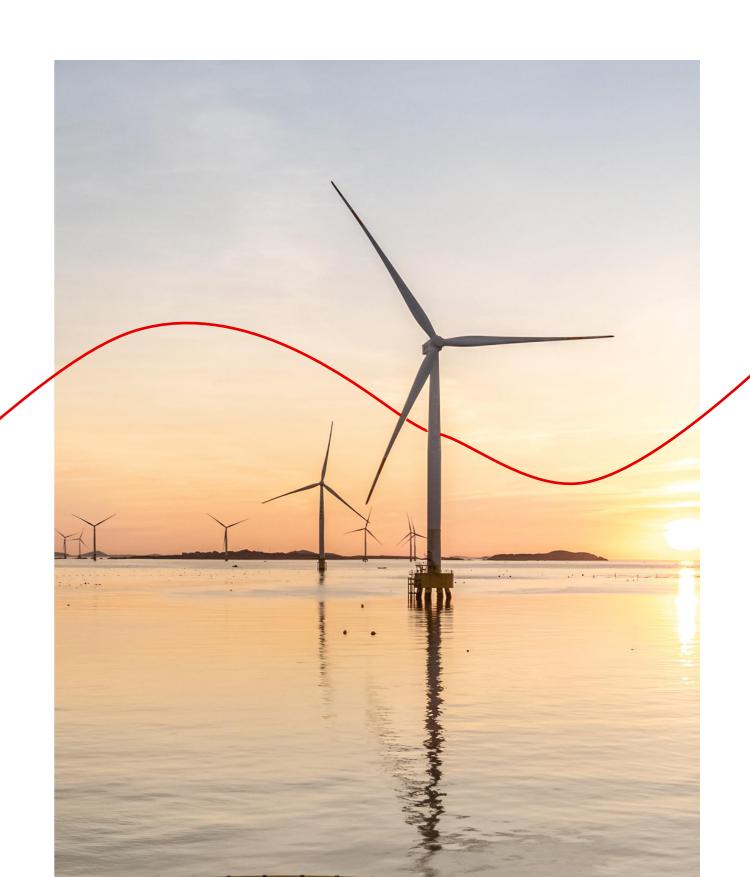
Infrastructure: 2025 Outlook

Away from the crowds

"Secular themes will continue to provide tailwinds for the asset class, but investors will need to be thoughtful about their investment process, and avoid herd mentality especially within 'hot' businesses."



Alex Leung
Head of Research & Strategy,
Infrastructure



Balancing megatrends against herd mentality

We summarize below some of the key investment themes that published in our recent 2025 infrastructure outlook (*link*). In our view, the stars are aligned for infrastructure.

The macroeconomic backdrop for infrastructure is positive on most counts, including stronger than expected economic growth, above average inflation, and declining interest rates (albeit slowly). The denominator effect is behind us, after two years of strong public market performance. Private infrastructure valuations have declined, while competition for deals has also decreased. The 'biggest election year in history of humanity' is also behind us, removing some political uncertainty.

Now that the macroenvironment and sentiment have turned more positive, we think the bears are running out of excuses. We remain optimistic about the industry going into 2025. However, there is also a simple truth – there is no easy money left in infrastructure.

A contrarian approach to secular themes

Despite our positive outlook for the industry, we have to ask an honest question – is there herd mentality in infrastructure markets? We think the answer is yes'.

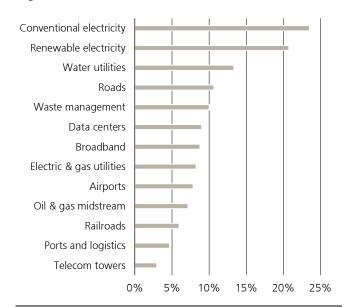
This concern is reasonable, as the same debate is already happening in public markets, where technological disruptions have led to questions about crowded trades and high valuations. Infrastructure is also exposed to disruptive trends and secular themes like the 4Ds – decarbonization, digitalization, deglobalization and demographic change.

To be clear, we remain bullish on these megatrends. We still believe that they will transform our world and provide significant investment opportunities. But it would be dishonest to not acknowledge that there is some hype, especially in clean energy and data centers.

Looking at infrastructure fundamentals though, we notice that consensus earnings (EBITDA) growth for listed infrastructure is quite healthy (see Figure 1). Renewable electricity and data centers are both showing strong growth, consistent with the positive sentiment. However, what stands out is the strength across all sectors, including roads, waste management and utilities.

These earnings estimates may not show the full picture of private infrastructure fundamentals, but it's difficult to deny that there is dislocation between sentiment and fundamentals.

Figure 1: Listed infrastructure 2023-26E EBITDA CAGR



Source: Bloomberg, October 2024.

The key is to avoid hype and groupthink when investing in the megatrends. Adopting a more contrarian approach does not mean avoidance. It means being more thoughtful about underlying assumptions in forecasting and valuations.

On the other hand, there appears to be overlooked sectors such as power, utilities, and transportation that are fundamentally strong, and should look more attractive in 2025, especially on the back of a stabilized macro environment.

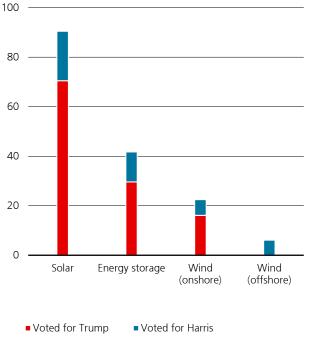
Energy, after the vote

One focus for infrastructure investors is the impact of the recent US elections on the energy sector, as the Republican Party swept the US presidency and congress. Donald Trump has repeatedly talked about repealing the Inflation Reduction Act (IRA), due to his unfavorable view towards renewable energy, as well as a way to fund his planned extension of the 2017 tax cuts.

Many within the energy and infrastructure industry, including ourselves, have argued that the growth in clean energy has mostly benefited Republican-supporting 'red' states. Naturally, this would indicate bipartisan support for legislation like the IRA. For example, 70% of US renewable projects currently under development are located in states that voted for Donald Trump in 2024 (see Figure 2).

However, recent surveys show the support for renewables from Republicans is trending down (Figure 3).

Figure 2: US renewable projects under development by state political leanings (USD billion)

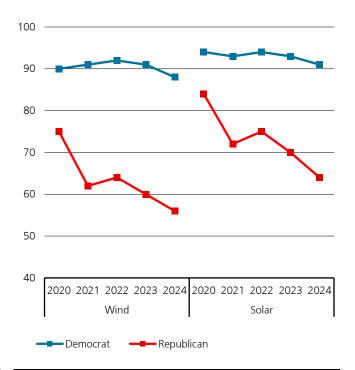


Source: EIA, October 2024.

Taking a more contrarian stance, we have to wonder – if everyone in the industry is repeating the same talking points about the IRA's impact on red states, yet data still shows waning support from Republicans, perhaps everyone is underestimating the risk of an IRA repeal.

Fortunately for energy investors, the evolution of clean energy has never been linear, and swings of the political pendulum are nothing new.

Figure 3: % of US adults favoring more renewables



Source: Pew Research, June 2024.

The clean energy industry has shown significant resiliency and adaptability. What the industry can lean on is the fact that renewable energy remains the lowest cost electricity in most places, even without subsidies. In addition, electricity demand growth has accelerated due to AI and data centers. This means that as an investor, there should be plenty of investment opportunities, regardless of the uncertainties around policies.

Private infrastructure sector performance outlook

	Negative		Neutral		Positive
Europe		Oil & gas, conventional power	Fiber, ports, railroads, toll roads, utilities	Airports, data centers, telecom towers	Energy transition
US		Oil & gas, ports	Airports, fiber, telecom towers, toll roads, utilities	Conventional power, data centers, railroads	Energy transition

Source: UBS Asset Management, November 2024. Assessment informs top-down perspectives by sectors and regions. UBS-AM will weigh the perceived relative attractiveness using a scale of "positive", "neutral" and "negative" ratings. The ratings do not reflect exclusionary or inclusionary investment screening but imply more risk premium to be applied to sectors with "negative" ratings and less risk premium for sectors with "positive" ratings, based on our latest views. These ratings are the opinion of UBS-AM 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.

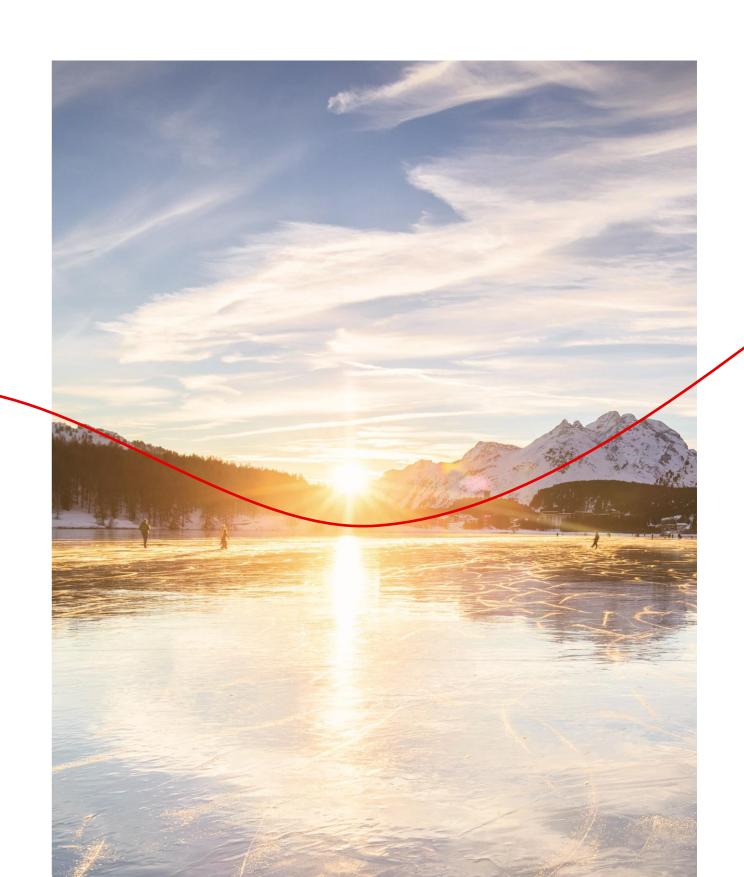
Infrastructure: Energy transition

Nuclear energy – another renaisance?

"For a nuclear renaissance to materialize, it must be worthwhile for all stakeholders across the value chain. This means a new ecosystem will need to be scaled up from scratch, from upstream nuclear fuel, to downstream waste, and all the engineering, manufacturing and maintenance in between."



Alex Leung Head of Research & Strategy, Infrastructure



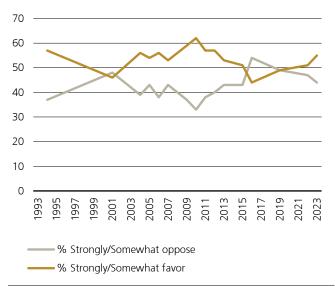
Lessons learned from university research reactors

Nuclear renaissance... again?

Interest in nuclear energy has ebbed and flowed in the past few decades. We have seen several declarations of a 'nuclear renaissance' over this period, depending on prevailing public opinion around carbon emissions, energy security, nuclear safety, as well as country-specific issues.

Once again, sentiment for nuclear energy appears to be on the upswing. In the US, public support for nuclear is at a decade high (see Figure 1). Governments around the world have also been proactively supporting the industry through various subsidy programs.

Figure 1: US public opinion on nuclear energy



Source: Gallup Poll, April 2023.

In addition, the recent hype around generative AI and data centers has reignited the nuclear debate. Amazon and Microsoft have both announced data center projects that will be powered by nuclear, including from old and previously retired nuclear power plants.

With widespread political support, could the nuclear renaissance be real this time? To answer that, we first have to understand why the previous nuclear renaissances have fizzled out. For that, we'll explore a lesser-known chapter in the history of the nuclear industry – university research reactors.

Case study: Cornell's nuclear research reactor

In 2001, Cornell University in New York state announced the closure of the Ward Center for Nuclear Science, which housed a small 500-kilowatt research reactor. The school explained that they have not conducted significant nuclear research since the 1970s, and had disbanded their nuclear engineering program in 1995 due to low enrolment.

Surprisingly, 2,000 students signed a petition opposing the closure. A US Senator even wrote a letter urging the school administration to reverse the decision. He pointed out that the Department of Energy could have provided Cornell with USD 2 million of funding per year, which far exceeded the facility's annual operating cost of USD 500,000.

However, it was too little too late. Nuclear had fallen out of favor, it simply wasn't worthwhile for the school anymore. The same happened across the country, as the number of research reactors fell from 64 in the 1960s to 25 today.

The lesson learned here is that even positive public opinion, political support, and generous subsidies are not enough. There is an entire ecosystem that needs to be addressed. What happens if equipment needs to be upgraded? Is there a robust supply chain for repairs and maintenance? Is there processing for nuclear waste? And of course, what are the career prospects of nuclear engineering students?

A holistic roadmap for the nuclear value chain

The closure of university research reactors perfectly encapsulates the challenges faced by the nuclear industry. Stakeholders including customers, investors, citizens and politicians all have competing interests – some short-term and economical, others long-term and strategic – and backed by plenty of emotional and ideological sentiment.

In the last few decades, support for the nuclear industry has often come in a sporadic and uncoordinated manner. This often meant one-off subsidies for ageing power plants, or small amounts of grants that target narrow parts of the industry that hardly made an impact.

For a nuclear renaissance to materialize, it must be worthwhile for all stakeholders across the value chain. This means a new ecosystem will need to be scaled up from scratch, from upstream nuclear fuel, to downstream waste, and all the engineering, manufacturing and maintenance in between.

As a final piece to the puzzle, a nuclear renaissance will need a whole new generation of nuclear engineering graduates. Hopefully, their career prospects will be brighter in the future – the success of the industry depends on it.



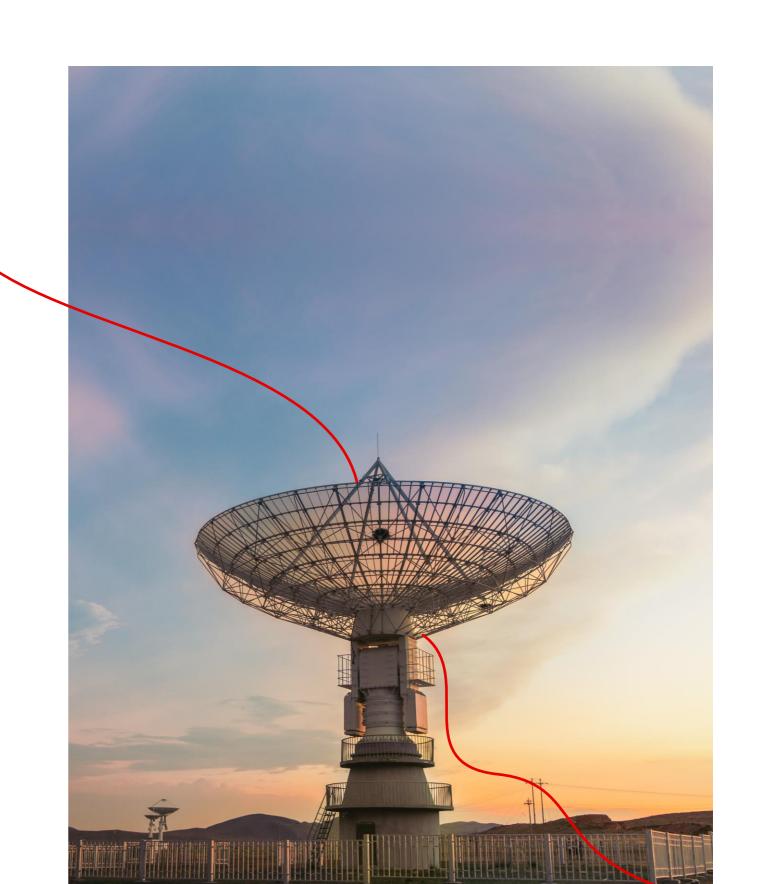
Infrastructure debt

An interesting time to invest

"The fundamentals of infrastructure remain very strong, especially given the current difficult macroeconomic and political environment."



Viktor Kozel Head Infrastructure Debt EMEA



What makes infrastructure debt attractive?

From an investor perspective, what makes infrastructure debt attractive versus other asset classes?

The stability that the infrastructure debt offers is important compared with other asset classes in investor portfolios, with fundamentals including low volatility of cashflows, diversification away from corporate risk, low defaults and high recovery rates in the event of insolvency.

What is next for investor allocations, given the growing appetite for infrastructure high yield and sub-investment grade debt?

We are seeing a trend of large funds getting bigger, particularly in the high yield space, and a lot of newcomers with experience in infrastructure equity are also moving into infrastructure credit

Which sectors are most attractive from a risk-return perspective for a debt investor today?

What we see in the market now is renewables and digital infrastructure dominating activity, but the risk-return proposition is less appealing. We prefer to look elsewhere and consider other sectors, such as transportation, industrial sectors and social infrastructure, where there is a huge investment need driven by decarbonization and supportive trends.

How can a debt investor make an impact with regard to ESG considerations?

Everyone has to develop their own strategy because we need to invest as much as EUR 700 billion annually into decarbonization according to the European Investment Bank, so there is a clear opportunity set.

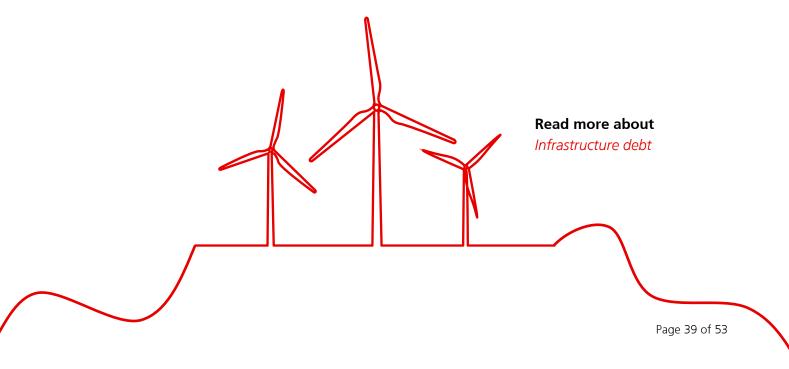
Impact is not concessionary capital – that is very important. This is about creating a framework and discipline without compromising on returns for investors, rather than prioritizing impact over financial returns.

What kind of competition is there for deals? Are banks trying to regain market share?

We are certainly seeing some pushback and an attempt from the banks to re-capture market share. Over the last few years, institutional investors have increased their share of lending and banks are now maybe more aware of the problem and trying to fight back. We have to be more disciplined on pricing because we don't have the same cross-selling business models and have to price the risk in line with the market to give investors the best possible returns.

What does pricing look like in the current market?

Given the lack of liquidity and new allocations from investors, this creates more competition for liquidity and that affects pricing. We continue to see the mid-market as attractive because, with market consolidation and larger funds taking a greater proportion of investor allocations, the market for EUR 50–200 million loans goes under the radar. That represents the majority of the market and still offers a good entry point for sophisticated investors with structuring capabilities to capture additional premiums.



Food and agriculture: Farmland

A great untapped asset class

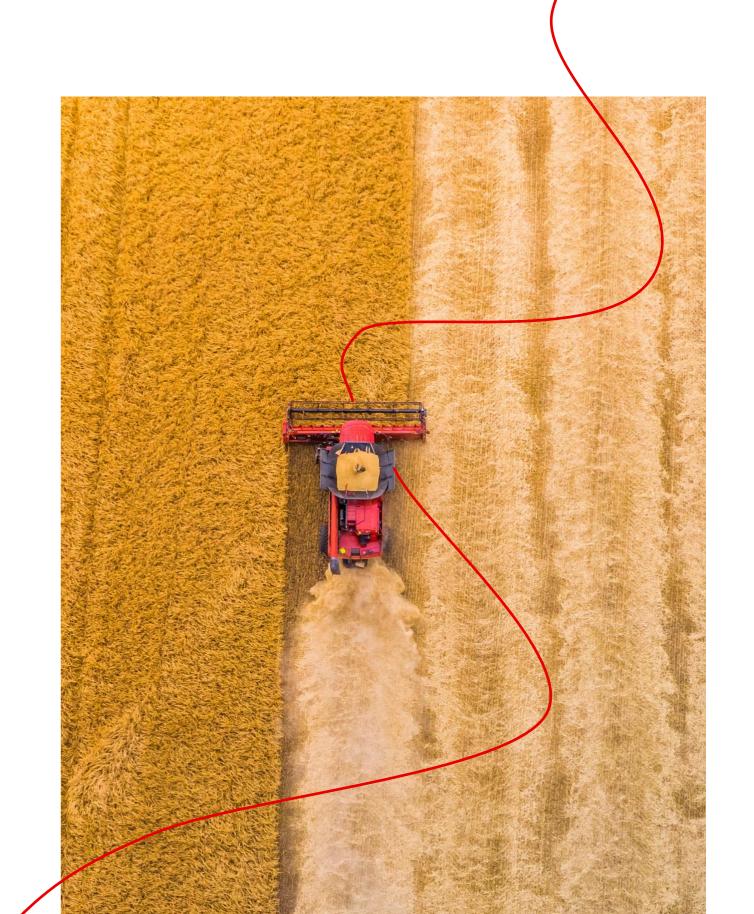
"Our farmland business covers around 280,000 acres across 16 different US states and well over 30 different major crops – highlighting the importance of harmonizing sustainability action across the entire value chain of our assets."

Jim McCandless Head of Farmland



Daniel Murray Head of Asset Management Farmland





Leading Harvest – collaborating with farmers to promote sustainable farming practices

We are a founding member of Leading Harvest, an outcomes-based sustainability standard that addresses 13 principles, 13 objectives, 33 performance measures, and 71 indicators core to farmland sustainability.

These components address efficiently using water, agricultural chemicals, and energy to grow crops as well as conserving soils and biodiversity while also minimizing waste. Additionally, they take into consideration the wellbeing of farmland tenants, employees, and local communities. Conformance to the Standard is assured through independent, third-party certification, enabling stakeholders to make verifiable claims to the market while strengthening credibility, reputation, and ocial license.



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.

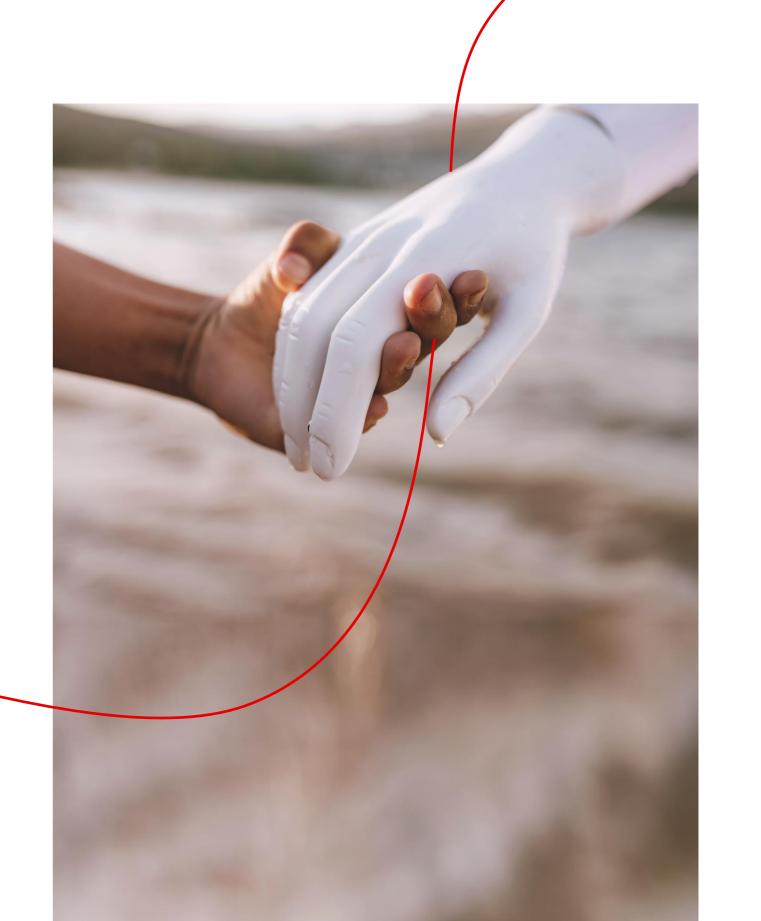
Private equity

A search for liquidity

"Liquidity has become the number one issue for LPs in today's private equity market. As holding periods stretch longer than anticipated and unrealized values reach record highs, investors are pressing GPs to return capital."



James PilkingtonMulti-Managers Private Equity,
Portfolio Manager



The market for exits may be turning

US election implications

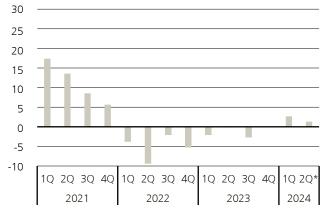
The Republican sweep of Congress and the White House is generally regarded as positive for risk assets, led by higher potential for tax cuts and expectations for a de-regulated, business-friendly environment. US private equity firms we have spoken to are bullish on the prospective operating environment, with many of these factors, including a stronger dollar, limited to domestic private equity.

Operating environment and valuations

Today's operating environment has supported good fundamental performance at most privately-held companies, and sponsors generally report positive top- and bottom-line numbers. A small percentage of companies are still suffering supply chain and labor-cost overhangs, but most businesses seem to be performing on plan.

Where marks seem to lag public markets performance, we view this as largely due to reluctance to peg valuations too tightly to public comparables, as many funds were burned on this during the 2022 pullback. With the benefit of hindsight, we can say most general partners (GPs) took a middle-of-the-road approach of mild mark-downs which resulted in balanced portfolio valuations when paired with the quick market rebound (but things were looking pretty sober until the public markets recovery took hold). With this fresh in the minds of both GPs and limited partners (LPs), we expect to see more mark-ups at exit and fewer valuation swings, even though operating performance and comparable valuations are both quite positive.

Figure 1: Venture capital quarterly fund returns (%)



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

Searching for liquidity

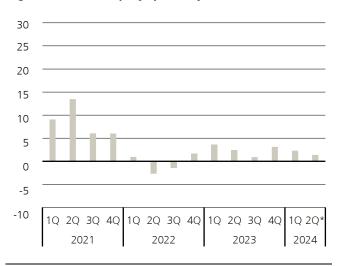
Liquidity has become the number one issue for LPs in today's private equity market. As holding periods stretch longer than anticipated (46% of global buyout-backed companies have been held for four years or longer) and unrealized values reach record highs (USD 3.2 trillion), investors are pressing GPs to return capital.

While there are early signs of recovery in deal activity – 1H24 M&A is up from 1H23, but still far from 2021 levels² – and a few notable IPOs, overall private euity exit volumes have yet to meaningfully recover. High quality 'trophy' assets are changing hands, but the median company is still struggling against a mismatch of seller and buyer valuation expectations. Sentiment is improving, with one mid-2024 survey showing that 73% of sponsors expect activity to increase.³

This demand has driven GPs to explore innovative strategies to create liquidity options for LPs, and sponsors continue to turn to secondary markets and especially continuation funds to drive DPI. Such transactions have increased by over 50% in the last year, and secondary volumes overall have increased by nearly 60% year-over-year, on pace to set a record in 2024.4

If realized, market expectations for a more active IPO market in 2025 would have knock-on effects spread over a several-year period, eventually reaching smaller funds and companies as capital flows back to LPs and is reinvested. As it is, fundraising has been concentrated among the largest funds, a function of both flight to quality and the types of LPs that have capital to deploy.

Figure 2: Private equity quarterly fund returns (%)



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

In the first half of 2024, over USD 5 billion funds accounted for more than 50% of total capital raised. Notably, European mega funds have benefited from earlier interest rate cuts from European central banks and their share relative to global funds has been increasing, from 23.1% of capital raised in 2023 to 34.1% in 1H24.5 Meanwhile, smaller and first-time funds are faced with a challenging fundraising environment. Dry powder is close to record highs, again mostly concentrated in large funds.

New value creation paths

Two key drivers of private equity returns over the last decade have been multiple expansion and cost-effective financing. Both are in short supply today, and sponsors are having to pull new levers to meet investor expectations. These are generally not new (in fact, quite well known among private equity investors), but are playing a new role in driving returns.

GPs are increasingly turning to mid-market companies, implementing buy-and-build and add-on acquisitions strategies as central pillars of value creation. By integrating smaller add-ons, a company's entry multiple can be 'bought down', provided these smaller businesses can be successfully integrated into the platform investment. The rapidly-growing platform then becomes more attractive to buyers and can hopefully command a higher valuation at exit, thereby earning back the multiple expansion which had previously been a given.

Another angle is the corporate carve-out, the purchase of a non-core or unloved business from within a large company. These are especially popular where the larger organization is viewed as inhibiting growth, or the business unit is burdened with a less-favorable valuation. Companies have been divesting non-core businesses at a rapid pace in recent years, a buying opportunity for private equity which has always existed but is growing as part of GP sourcing strategies.

Venture Capital

With the end of low interest rates and a tougher fundraising environment, venture activity remains at muted levels. US venture firms have announced USD 56 billion in new fundraising (down 65% from 2023) and so far closed on USD 35 billion, including USD 14 billion for funds still raising from last year. 6 Those LPs that actively deploy during the current cycle favor large, well-known brand name firms. Thus, over USD 1 billion funds have accounted for ca. 34% of all venture funds raised this year, which is nearly double the share of last year. Despite venture capital investment dollars halving from their peak, in nominal terms, there is still more money flowing to founders than over most of the past decades. With the more measured pace of investment, the pace of mega-deals (over USD 100 million) has significantly slowed since 2021, though Alrelated themes stick out as having the potential to selectively drive mega deals.

- ¹ Bain, Mid-Year Private Equity Report, 2024.
- ² Lazard, Interim Secondary Market Report 2024.
- ³ EX, Private Equity Pulse Survey, 2Q24.
- ⁴ Jefferies, 1H24 Global Secondary Market Review.
- ⁵ Pitchbook, 2Q24.
- ⁶ SVB State of the Market, 2H24.

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 (UBS-AM), November 2024. Assessment informs top-down perspectives and strategy allocation. UBS-AM will weigh the perceived relative attractiveness of these strategies using a scale of 'underweight', 'neutral' and 'overweight' ratings. These ratings are the opinion of UBS-AM 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.

Private equity secondaries

Evolving ecosystem

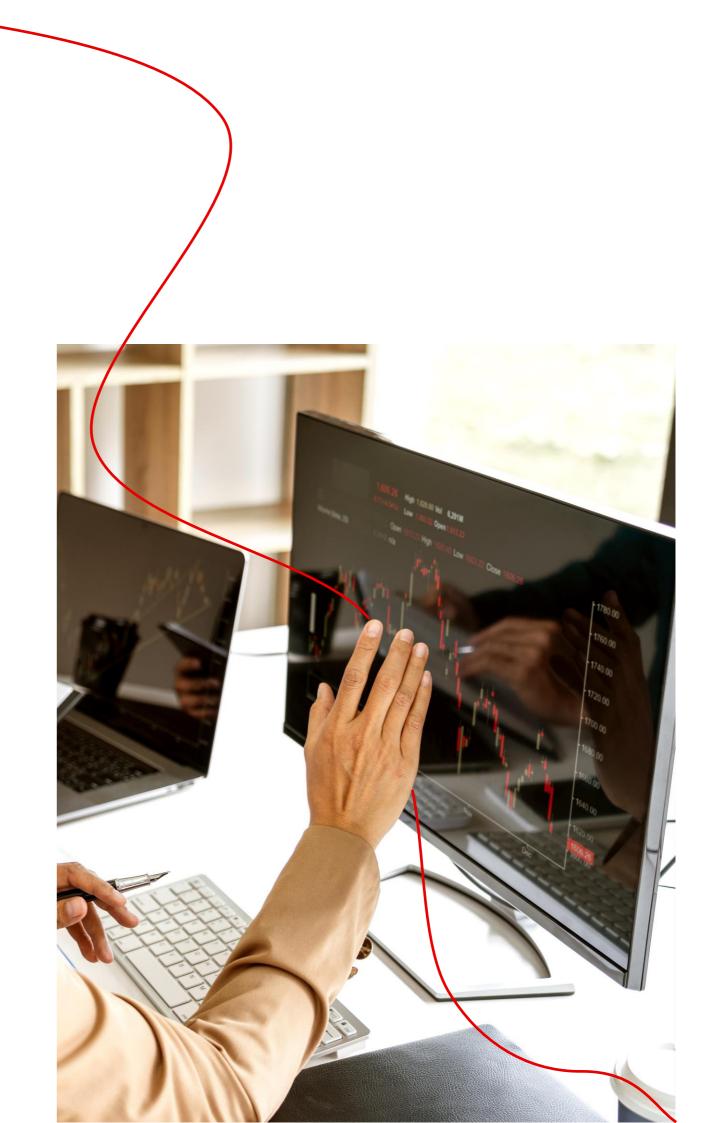
"Unlike traditional closed-ended private equity funds which are illiquid and have fixed lifespans typically for well over a decade, semi-liquid funds are open-ended and offer more frequent redemption opportunities, typically on a monthly or quarterly basis."

Markus Benzler Head Multi-Managers Private Equity



Michael Brunner Multi-Managers Private Equity Portfolio Manager





The rise of semi-liquid secondaries funds

The private equity secondary market has witnessed substantial growth and evolution over recent years, emerging as a vital component of the broader private equity ecosystem. In the first half of 2024, the secondary market volume reached a remarkable USD 68 billion, and the growth trajectory is expected to continue for the foreseeable future. This significant growth is indicative of the increasing complexity and specialization within the market, with investors and fund managers alike recognizing the benefits of liquidity, diversification, and the ability to recalibrate portfolios.

Notably, there has been the introduction of semi-liquid open-ended secondary funds, offering a flexible and attractive vehicle for a diverse range of investors, from institutional and retail investors, to sophisticated family offices. This article explores the dynamics of the secondary market, with a focus on the rise of semi-liquid secondaries funds and their role in the evolving landscape.

Breakdown of the secondary market

The secondary market in private equity consists of transactions where investors buy and sell existing private equity fund interests. In the first half of 2024, the global secondaries market had an estimated volume of USD 68 billion, which represents a 58% increase on the previous year's 1H volume of USD 43 billion.1 The market can be broadly categorized into two main segments: GP-led secondaries and LP-led secondaries.

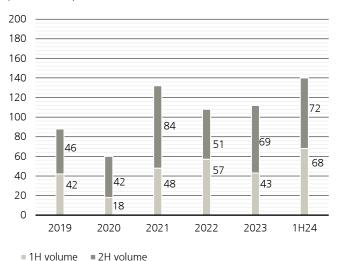
GP-led secondaries

Representing 41%¹ of transactions in the first half of 2024, this segment includes transactions initiated by General Partners (GPs) to provide liquidity to their Limited Partners (LPs) or to facilitate the continuation of a fund beyond its initial term. In the present day's secondary market, the companies or assets in GP-led secondaries are often considered 'trophy assets.' These companies may require recapitalization to achieve a successful exit, or the GP may wish to hold onto the asset longer to realize its full potential. This marks a significant shift from 10–15 years ago when GP-led secondaries typically involved underperforming assets. The evolution in the quality of assets reflects the broader changes in the secondary market, which has become more sophisticated and diversified.

LP-led secondaries

Comprising 59%¹ of the 1H24 market volume, LP-led secondaries involve the sale of fund interests by existing investors. This segment has grown significantly as investors use these transactions as a portfolio management tool. The rise in buyside capital and the availability of more comprehensive pricing information have created a favorable pricing environment, making LP-led secondaries an increasingly attractive option for liquidity and portfolio rebalancing.

Figure 1: Secondary market transaction volume (USD billion)



Source: Jefferies: 1H24 Global Secondary Market Review. * 2H24 figures are estimated to exceed USD 140 billion based on projections. Past performance is not a guarantee for future results.

The rise of semi-liquid secondary funds

Amidst the growth of the private equity secondary market, semi-liquid open-ended secondary funds have gained traction in recent years. These funds, often referred to as 'evergreen' funds, provide investors with a blend of liquidity and long-term investment exposure. Unlike traditional closed-ended private equity funds which are illiquid and have fixed lifespans typically for well over a decade, semi-liquid funds are open-ended and offer more frequent redemption opportunities, typically on a monthly or quarterly basis.

Why semi-liquid funds are gaining popularity

1. Flexibility and liquidity

One of the primary attractions of semi-liquid secondary funds is the ability to subscribe and redeem investments with relative ease. This flexibility appeals to a broad spectrum of investors who seek exposure to private equity but also value the option to adjust their holdings periodically. For institutional investors, this can mean better alignment with cash flow needs and portfolio rebalancing strategies. Retail investors and family offices, on the other hand, benefit from access to private markets without committing capital for extended periods.

2. Diversification and risk management

These funds typically invest in a diversified portfolio of secondary transactions, which can include both LP-led and GP-led deals. This diversification helps mitigate risk by spreading investments across various assets and vintage years. Additionally, the secondary market's nature often allows investors to gain exposure to mature, cashgenerating assets, providing a different risk-return profile compared to primary investments.

3. Enhanced market access

Semi-liquid funds democratize access to the secondary market. Traditionally, participation in private equity secondaries was limited to large institutional investors with substantial capital and the necessary expertise to navigate the complexity of secondaries investing. However, the advent of semi-liquid structures has opened the market to smaller investors, including retail investors, who can now participate with smaller ticket sizes. This broader participation is particularly appealing given the increased availability of information and transparency in pricing.

The role of local feeder funds

Another significant development in the secondary market landscape is the increasing use of local feeder funds to access the master fund's portfolio. Local feeder funds, which are established in the investor's home country, offer a conduit through which local investors can gain exposure to the assets held by the master fund, typically domiciled in financial hubs like Luxembourg. This arrangement provides several benefits:

Regulatory compliance and ease of investment

Local feeder funds simplify the investment process for investors by aligning with local regulatory requirements. This is particularly advantageous in countries like Australia, Canada and Switzerland, where regulatory frameworks can vary significantly from those of the jurisdictions where the master funds are domiciled. By investing through a local feeder, investors can navigate these regulations more smoothly, ensuring compliance and reducing administrative burdens.

Tax efficiency

In some cases, investing through a local feeder fund can offer tax advantages. These funds may be structured in a way that exempts investors from certain taxes and fees that they would otherwise incur if investing directly in the overseas master fund. This tax efficiency makes local feeder funds an attractive option for investors seeking to optimize their returns while maintaining compliance with local tax laws

Simplified investor onboarding

The use of local feeder funds can streamline the onboarding process for investors, providing a familiar and locally compliant investment structure. This ease of onboarding is particularly beneficial for smaller investors, including retail clients and family offices, who may find the direct investment process into foreign domiciled funds cumbersome and complex.

Trends driving the market

At present, we see a number of trends in the secondaries market, both in the GP and LP segments of the secondaries market.

Counter-cyclical nature and secular trends

In the past, secondaries were generally considered as a counter cyclical sub-asset class, as secondaries tended to perform well during economic downturns. However, this dynamic has shifted as long term, secular economic drivers now underpin the secondaries market. One notable secular driver is the growing recognition of the benefits of holding assets for longer periods in order to maximize value creation. Indeed, the rapid growth of GP-led secondaries, in particular continuation funds, as these funds allow GPs to extend the life of high-quality assets, which offer investors long-term exposure to said assets and potentially higher returns upon exit.

Furthermore, secondaries have now become a well-established portfolio management tool, offering liquidity and enabling portfolio managers to calibrate their exposure to a particular vintage year, sector or geography. This evolution reflects the increased sophistication and integration of secondaries into portfolio management in general, and we expect these trends to continue along these lines in the coming years.

GP-led secondaries

In the GP-led market, we see that continuation vehicles are steadily gaining acceptance and we expect a strong pipeline of such continuation vehicles for the second half of 2024. In addition, the liquidity that such a vehicle can provide is highly appreciated by LPs especially in an environment where merger and acquisition (M&A) activity has decreased, and the route of exiting a company via initial public offering (IPO) significantly diminished in 2023. This shift makes GP-led secondaries one of the few viable options for generating liquidity, further fueling their growth and attractiveness in the market, a trend which we expect to continue in the latter half of 2024.

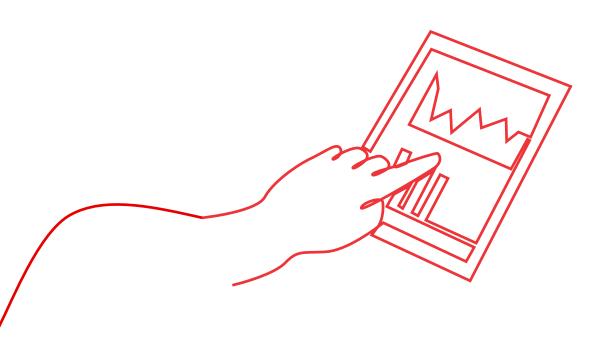
LP-led secondaries

The trend of LP-led secondaries has reached record levels, driven by a rising frequency of LPs seeking liquidity. This surge has brought transaction volumes to new heights, bolstered by high levels of fundraising from both new entrants and established large secondary buyers. Not only has the volume of LP-led secondaries increased, but the size of the transactions too. In the first half of 2024, we saw 10 LP-led transactions of USD1 billion or greater, whereas in 1H23 there were only six such deals of this size. Indeed, based on these observations we expect this trend to continue into the second half of 2024 and into early 2025.

Final thoughts

The private equity secondary market is experiencing a dynamic phase of growth and innovation, driven by the increasing use of GP-led and LP-led secondary transactions, as well as the emergence of structured liquidity solutions. The rise of semi-liquid open-ended secondary funds is a testament to the market's evolution, offering a compelling option for investors seeking both exposure to private equity and the flexibility of liquidity. Additionally, the growing popularity of local feeder funds provides a practical and tax-efficient avenue for investors in specific jurisdictions, allowing them to access global markets while navigating local regulatory landscapes.

As the market continues to mature, with projections of reaching USD 140 billion¹ by the end of 2024, the role of semi-liquid funds and local feeder structures is likely to expand, providing versatile and accessible investment vehicles for a diverse range of investors. The continued development of the secondary market, supported by advancements in data analytics and a favorable pricing environment, bodes well for its future. However, investors must remain vigilant, considering the complexities and risks associated with these investments. As the market evolves, the adaptability and innovative spirit of fund managers and investors will be key to navigating the secondaries landscape.



¹ Jefferies 1H24 Global Secondary Market Review

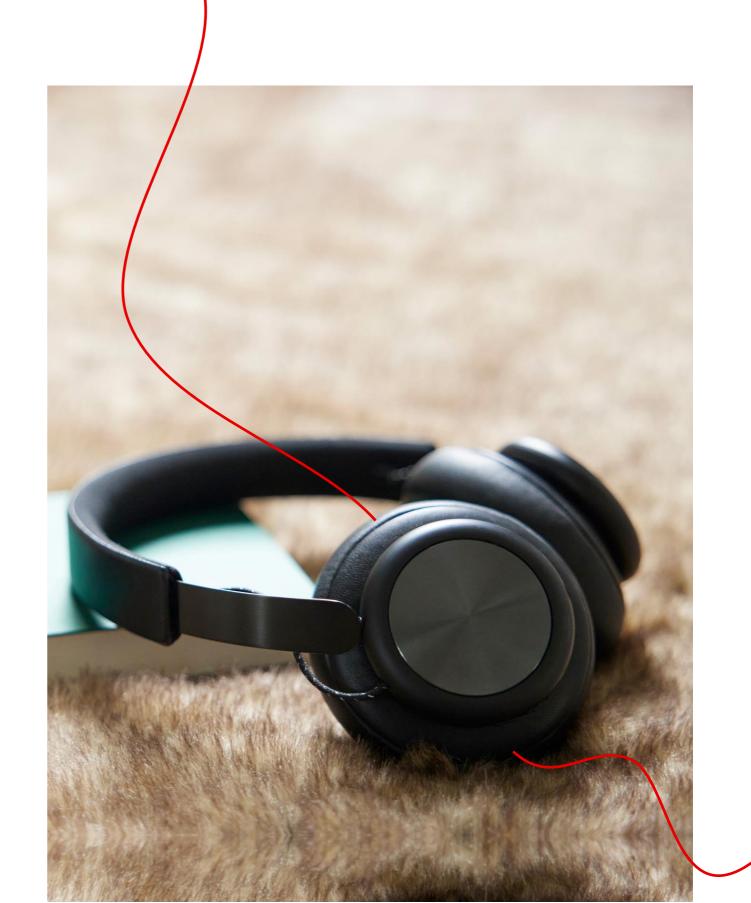
Private equity secondaries podcast

Embracing the journey

"The robust growth of transaction volumes is expected to continue in the coming years, driven, among other things, by a further increased acceptance of secondaries by investors and fund managers alike and the use of secondaries in other sub-asset classes such as private credit and infrastructure."



Jochen Mende Head of Secondaries



Decade in secondaries roundtable podcast

The global secondaries market has grown from roughly USD 47 billion in 2014 to more than USD 100 billion today as fund investors and fund managers alike have embraced the secondary market as a tool to actively manage their respective portfolios.

In the penultimate episode of the Decade of Secondaries Investing podcast miniseries, PEI sat down with **Jochen Mende**, Head of Private Equity Secondaries at UBS Asset Management, and **Bruno Bertrand-Delfau**, Partner and Co-Head of Secondaries Transactions and Liquidity Solutions at Proskauer Rose. The pair discuss how the secondaries market has developed over the past decade, how the European and North American market compare and what's in store for GP-led and LP-led transactions globally.

Below is a top level summary of the discussion, click on the link to listen in to the full episode.

- Now is a very good time to enter the asset class for investors, especially via the small deal segment which is characterized by a larger number of potential sellers and is relatively underserved by the buyer and broker community.
- The robust growth of transaction volumes is expected to continue in the coming years, driven, among other things, by a further increased acceptance of secondaries by investors and fund managers alike and the use of secondaries in other sub-asset classes such as private credit and infrastructure.
- Intermediation has increased across the board: it is estimated that 80 to 85 percent of all transactions are intermediated, particularly on the GP-led side and for larger LP-led deals, less so for smaller LP-led deals that allow sourcing outside of broad auctions.
- The HNW channel is expected to become a much bigger segment of the investor base, aided by a proliferation of fully paid-in, semi-liquid structures which provide easier access to the asset class at lower minimum investment sizes.



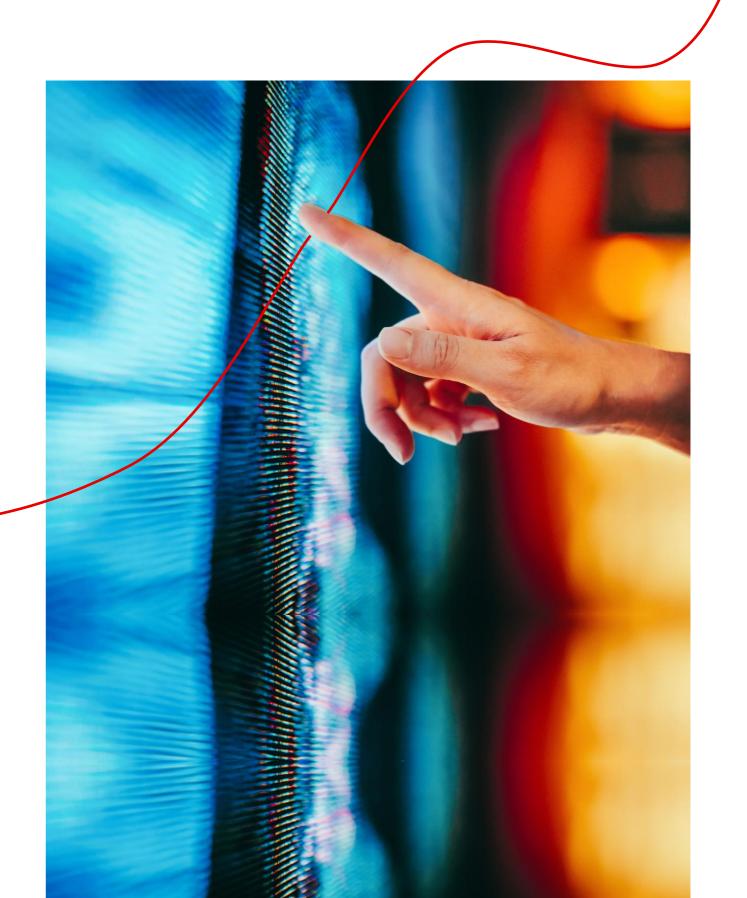
Private credit

Finding value in a tight market

"Although spreads in public credit markets have compressed significantly, we continue to find compelling opportunities in private credit. In particular, short duration, asset-backed private credit investments offer the most favorable risk-adjusted yields."



Joseph Sciortino Head Multi-Managers Private Credit



Compressing valuations

Public credit markets have generated positive total returns in 2024. Over the course of the third and fourth quarters, the pace of spread tightening has accelerated and spreads in many market segments are trading at/near the tightest levels in 20 years. For reference, the US Investment Grade Corporate Bond spread is currently 83bps (20-year tight) and the US High Yield Corporate Bond spread is 293bps (3rd percentile) as of 15 October 2024. While the credit markets are increasingly pricing in a soft landing, public credit has become more asymmetric. At the current valuations, public credit is vulnerable to a correction in the event that there is a deceleration in the economy or a macro-level shock to markets.

As a result of the peak asymmetry of public credit markets coupled with the relatively high base rates, private credit should offer investors a more consistent source of stable income and returns compared to public credit markets. While certain segments of private credit have also experienced some spread tightening, we believe that private credit offers a more favorable return profile compared to public credit on a forward-looking basis. In particular, we're targeting short duration, asset-backed private credit with a specific focus on asset classes that have a favorable fundamental outlook across most market environments. Furthermore, we prefer the asset-backed segment of the market as these assets have a shorter duration profile and are also generally less competitive and have not experienced the same degree of spread tightening over the past 18 months.

Private credit sector performance outlook							
	Negative	Neutral		Positive			
Americas		Corporate credit; Specialty finance	Commercial real estate	Residential real estate			
Europe		Corporate credit; Specialty finance	Commercial real estate	Residential real estate			

¹ Source: UBS Asset Management (UBS-AM), November 2024. Assessment informs top-down perspectives as well as bottom-up strategy and manager selection. UBS-AM 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 UBS-AM 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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