2023 Global Outlook

EMERGING TRENDS IN REAL ESTATE®

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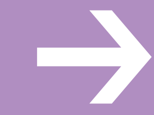

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EXECUTIVE SUMMARY

"It will not be as easy to make money from real estate as it has been over the last 10 years. You have to work for your money again, somehow. You have to really think about quality, location, all the fundamentals."

European real estate lender

SINGAPORE

NASHVILLE, US

The underlying narrative around real estate in 2023 is one of caution although there is some hope for renewed investment activity later in the year following the destabilising impact of high inflation and rising interest rates over the past 12 months.

Senior property professionals canvassed for this 2023 Global edition of *Emerging Trends in Real Estate*® draw comfort from signs of an improving macro and monetary policy backdrop to capital markets. They are working on the basis that inflation and base rates will peak in 2023.

But they also acknowledge that the market will still be dealing with an elevated interest rate environment for the foreseeable future compared with the zero-percent years following the global financial crisis (GFC). The familiar tailwinds of plentiful liquidity, loose monetary policy and cap-rate compression appear to be over.

As many interviewees suggest, real estate must work much harder for its returns, its favoured position ahead of other asset classes no longer quite so assured.

There remain major challenges and assumptions around what most interviewees expect will be a "U-shaped" economic recovery and a similarly drawn-out response in real estate capital markets. As this gradual recovery unfolds and as companies deal with higher costs and lower revenues, some will put expansion plans on hold. Occupier markets will take time to pick up speed.

Arguably the biggest obstacle to getting investment deals done this year comes down to the ongoing uncertainty over how much further interest rates will rise and when values will settle. The overall pricing gap is described as "a phoney war" between buyers and sellers, and there is no consensus on when it will close.

A sign that investor confidence in pricing remains fragile has been evident since publication of the regional *Emerging Trends* reports in the final quarter of 2022 with the rush of withdrawal requests from institutional and retail investors seeking to cash in their holdings in various, private open-ended funds. As interviewees acknowledge, this action raises questions about the valuation of private real estate.

For institutional investors, the withdrawal from these funds is at least partly a response to what is known as the "denominator effect", when falls in the value of their equity and bond portfolios can hinder the amount they invest in private real estate. In effect, their allocation to private property, slower to be revalued and less liquid than other asset classes, increases relative to falling equity and bond values and therefore prevents further investment or forces asset sales. The interviews indicate that the constraints on institutional investors as a result of the denominator effect are likely to remain a significant issue this year, particularly in the US and Europe.

Debt availability is also a major concern. Across global markets, banks are in "wait and see mode", prioritising existing clients over new borrowers. Finance is particularly scarce for new development, where high construction costs and a weak outlook for occupier demand add too much risk for most, if not all, banks.

For the immediate future, a major determining factor in the banks' sentiment towards real estate will come from the refinancing of existing loans. No-one expects distress on the scale of the GFC when the market had to absorb portfolios of non-performing loans. But many investors will undoubtedly feel the pain from higher interest rates.

With refinancing, a common view is that the banks, and lenders more generally, will put some sponsors under pressure to sell assets, quickly and at relatively low prices. There are, however, doubts as to whether alternative lenders will plug the finance gap as they did post-GFC, not least because some providers of mezzanine debt may well have to deal with legacy issues themselves.

Amid such doubts over debt finance, industry leaders envisage a “flight to quality” when it comes to the underlying assets although this is open to wide interpretation. Nowhere is this more apparent than in the office sector. More than three years on from the onset of COVID-19, great uncertainty remains as to how much companies and their employees will use office buildings in a hybrid working world.

There is an overriding concern over obsolescence here as well a strong sense that the sort of disruption that has rocked retail property is just beginning to be experienced in the office sector. Even so, regional swings in sentiment are evident. Some investors in the US are avoiding offices altogether in the short term. By contrast, interviewees in Europe and Asia Pacific indicate they are more open to seeking out value-creation opportunities despite the difficulties in the sector.

Though the future of the office is generating a lot of interest generally, real estate leaders are not looking at the sector in isolation. They once again find themselves dealing with an economic slowdown and financial crisis while addressing the structural changes to the way people, live, work and interact with the built environment.

In this uneasy juxtaposition of the short- and long-term challenges to real estate, the environmental, social and governance (ESG) agenda has become the unifying thread that links everyone, regardless of sector.

Most interviewees point out not only that the value-reduction process has still to play out fully in many markets globally, it will also create a widening divide between prime, “fit for purpose” assets in good locations and those energy inefficient assets in secondary locations requiring significant capital expenditure.

However, the industry has a long way to go, as we set out in Chapter 2 with a detailed analysis of the limited progress to date of a potentially important tool to be used in the decarbonisation of real estate: carbon pricing.

It is no silver bullet, but carbon pricing has the potential to create awareness about the “true cost” of carbon emissions as well as change the way real estate firms think and act when measuring and reducing emissions from their portfolios.

For the industry as a whole, the ESG agenda has clearly become more pressing as each year goes by, and it is increasingly seen as more of an opportunity than an obligation. To that end, greater adoption of carbon pricing will be vital.

> We needed to address the 'polluter pays' principle. For a number of reasons, it was very clear to us that the only way we were going to effect real change was by pricing our activities appropriately.
>
> **Property company CEO**

BARCELONA, SPAIN

CHAPTER 1

MANAGING EXPECTATIONS

"We are several quarters away from a fully functioning real estate market globally."

Global private equity investor

SEOUL, SOUTH KOREA

Sentiment counts for a lot in business, and though the real estate industry is extremely cautious about current market conditions there is a glimmer of hope for renewed investment activity later this year.

After years of benefiting from plentiful liquidity and loose monetary policy, real estate must work much harder for its returns, its favoured position ahead of other asset classes no longer quite so assured.

Over the past year, high inflation, rising interest rates and a slowdown in global economic growth have taken a heavy toll on the asset class in the form of falling values, higher debt costs and a dramatic slump in transactions.

Global volumes for completed sales of commercial properties totalled US$1.1 trillion in 2022, a 21 percent fall on the previous year, according to MSCI Real Assets. Behind the headline number is a story of ongoing uncertainty over values – and when they will stop falling – with reluctant sellers and prospective buyers currently unable to find a middle ground on pricing.

The transaction logjam has continued into 2023 although some of the industry leaders canvassed for this Global edition of *Emerging Trends in Real Estate* draw comfort from the signs that the macro and monetary backdrop to investment may improve this year.

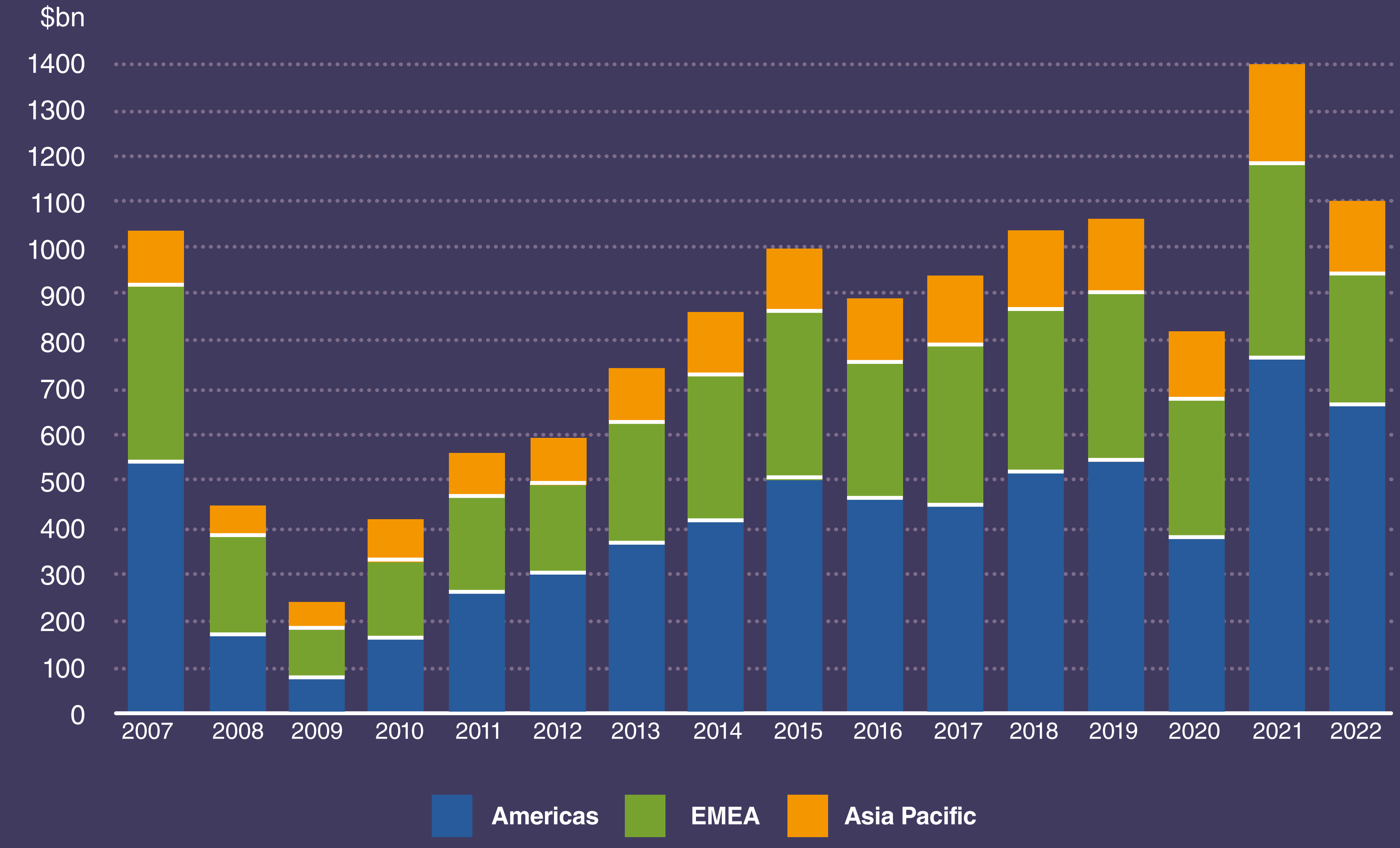
A recession was widely predicted as long ago as last year's Global report but has been avoided – so far – in most major economies. As one global investor observes, the risk remains but the current consensus is that any recession in the US and Europe would be shallow and shorter than initially feared, lifting business confidence in the process. "That's always good, because if you don't have business confidence then that doesn't help real estate either."

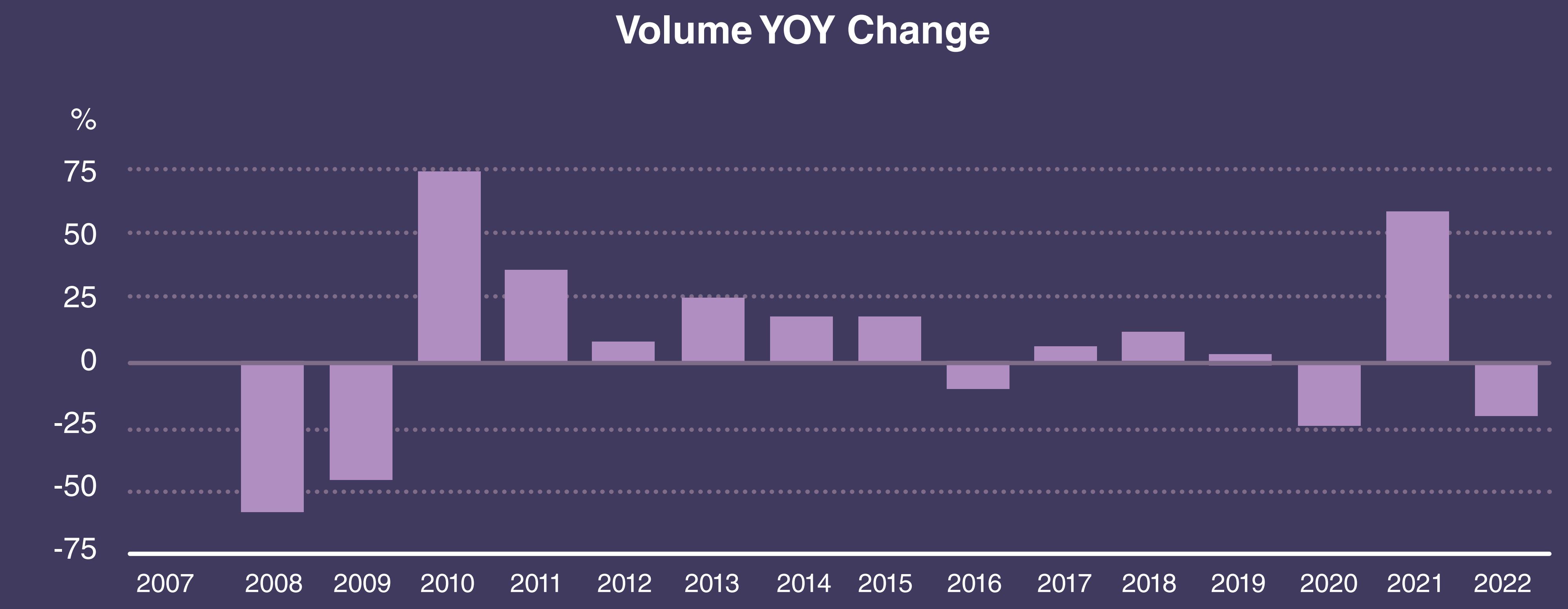
The industry has certainly shifted from last year's "mood of dread and trepidation", another global investment manager suggests, to a more positive outlook albeit with significant caveats around pricing and the availability of debt. Where much of 2022 was "mired in confusion and anxiety" over the war in Ukraine, inflation and interest rates there is now at least "a little more clarity" around the latter two factors. A mild winter and positive response to the energy crisis across most of Europe have also improved the mood.

"It doesn't mean that the damage or the size of the impact on real estate is any less," this investment manager acknowledges. "But I think that investors probably have a clearer idea of their tactical responses and whether their strategic focuses remain achievable in this climate."

There remain major challenges and assumptions, however, around what most interviewees expect will be a "U-shaped" economic recovery and a similarly drawn-out response in real estate capital markets.

Figure 1-1 **Global real estate capital flows 2007-2022**





Source: *MSCI Real Assets.*

Charts exclude development sites.

Working through a gradual recovery

The fact that the global economy showed more resilience in the second half of 2022 than widely expected is reflected in the latest forecast from the International Monetary Fund (IMF). The IMF indicates that global economic growth will slow from 3.4 percent in 2022 to 2.9 percent in 2023, then rebound to 3.1 percent in 2024.

This may not be a recession but such growth for 2023 is still weak by historical standards, albeit 0.2 percentage points higher than the IMF's previous global forecast. The IMF attributes the brighter macro-outlook to a robust labour market and household consumption in the US and better-than-expected adaptation to the energy crisis across most of Europe but notably not in the UK. The UK's high exposure to natural gas is one key reason why the IMF believes it will be the only "advanced economy" to contract this year – by 0.6 percent. This outcome suggests the UK economy is even worse off than sanctions-hit Russia.

More encouragingly, the current level of activity in China's economy supports the IMF's revision of overall global growth. Interviewees regard this as "a net benefit to Asia" , which as a region they believe is showing more economic resilience anyway compared with Western markets. Just how quickly this will translate into greater cross-border real estate investment remains to be seen although, according to MSCI Real Assets' year-end data, China was the region's largest market for transaction volumes in 2022.

The latest IMF forecast also indicates that global inflation will dip to 6.5 percent this year, from 8.8 percent in 2022. One global player articulates a common industry view that global investment activity will start increasing, possibly by the summer, if there is "a declaration of victory on inflation" by governments and central banks alongside interest rates plateauing or ticking down. "I think the equity markets, which always price ahead of everything, are going to roar once that occurs, and that will give a lot of people confidence."

"

If we are in the realms of a gradual recovery, occupier markets will take a while to pick up speed. And as firms deal with higher costs and lower revenues, some will put expansion plans on hold, which will exacerbate wait periods and income growth.

SHANGHAI, CHINA

Another global player strikes a more cautionary note: "If we are in the realms of a gradual recovery, occupier markets will take a while to pick up speed. And as occupiers deal with higher costs and lower revenues, some will put expansion plans on hold, which will exacerbate wait periods and income growth."

Dealing with higher interest rates

Though the industry still largely clings to the old theory of real estate as a hedge against inflation, the lasting impact of higher interest rates is a tougher judgement call. Interest rates are at or near the top of the list of business issues in all three regional editions of *Emerging Trends in Real Estate*. The interviews for this Global report suggest there is little sign of complacency on this front.

Industry leaders are working on the assumption that base rates will stabilise or peak in 2023. But they also acknowledge that the market will still be dealing with an elevated interest rate environment for the foreseeable future compared with the zero-percent years following the GFC. The full consequences have still to play out for pricing, the availability of debt capital and the refinancing of existing assets – all of which will influence overall investment activity.

"The base case, in our view, is that volatility should start to decline and price discovery should become more efficient. And therefore, we will start to see transaction volumes pick up during the year," says one global investment manager. "That said, I don't think it means we're out of the woods. Our expectation would be that even though interest rates are not going to increase perhaps as quickly, they'll still stay elevated throughout the year. And probably won't start reducing significantly in most markets."

According to the more bearish commentators, such as Oxford Economics, the downside risk of higher-for-longer interest rates will continue to weigh on investor sentiment towards real estate despite any overall macro improvement.

Indeed, one of the more troubling consequences of higher rates has been seen since publication of the regional *Emerging Trends* reports with the rush of withdrawal requests from institutional and retail investors seeking to cash in their holdings in various, private open-ended funds.

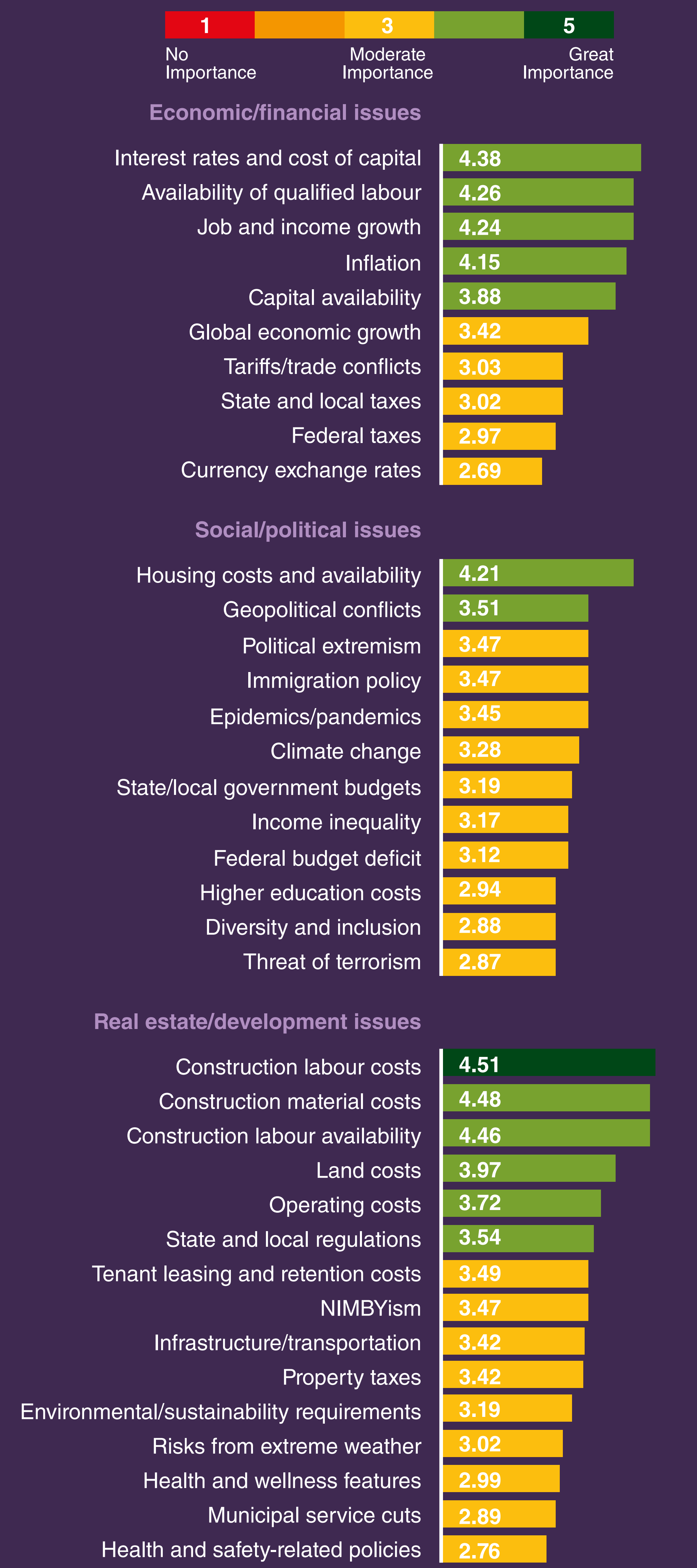
As a sign of just how quickly sentiment can change, these redemption queues started forming during the final quarter of 2022 when the property downturn took hold in the US and annual price growth decelerated to 0.9 percent – the slowest rate of gain in over a decade, according to MSCI. Those three months were brutal for the UK – a 12.8 percent drop in all property capital values in that quarter alone. Not surprisingly, the capital outflows have continued into 2023, and the asset managers have responded by imposing curbs on the redemption requests.

Volatility should start to decline and price discovery should become more efficient. And therefore, we will start to see transaction volumes pick up during the year.

The open-ended funds represent a relatively liquid investment in real estate, and the rush to the exit is the most visible evidence of broader concerns over real estate among investors.

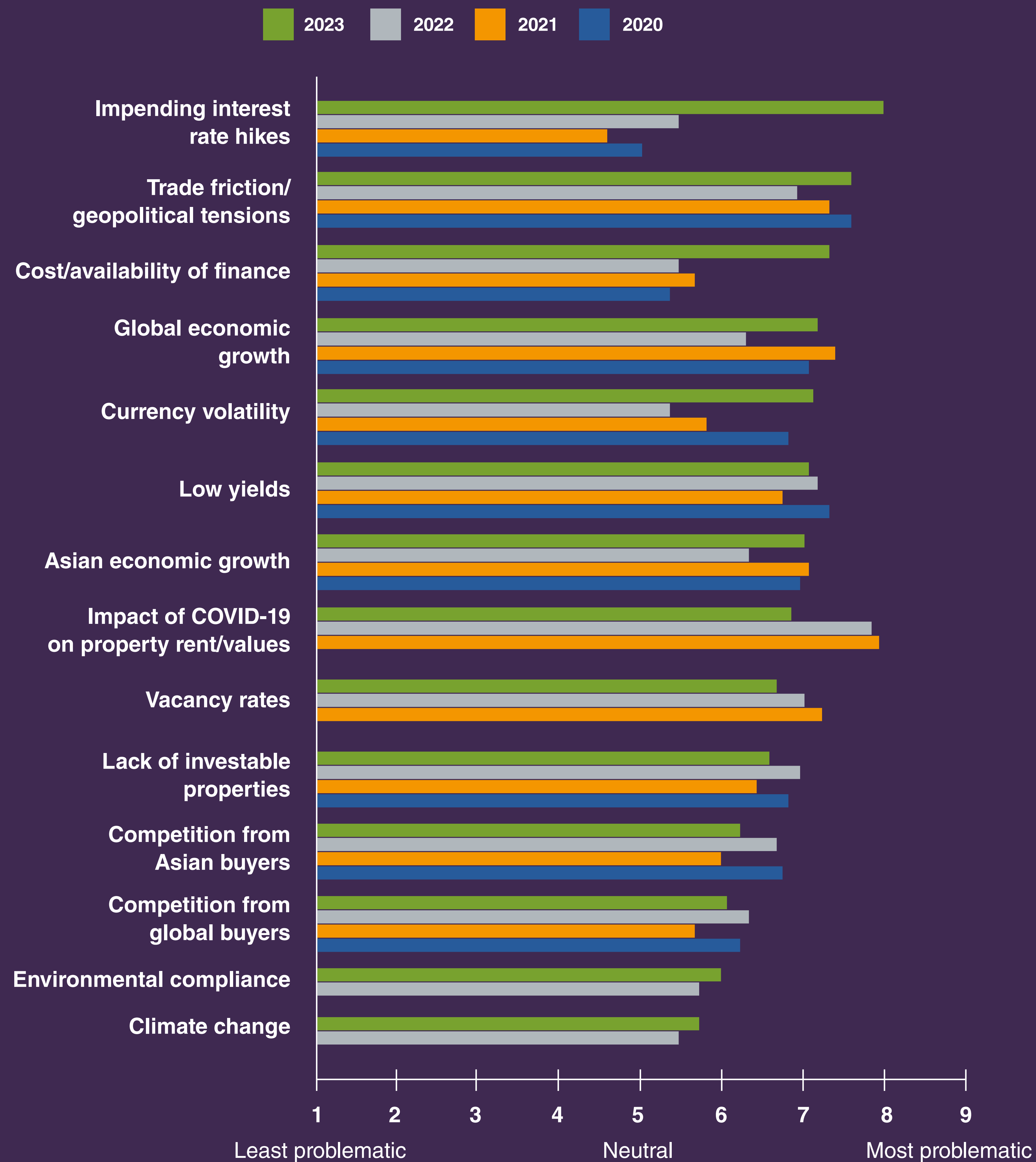
They are evidently taking action before values slide further, arguably reflecting a disconnect between the public markets and private real estate.

Figure 1-2 **Importance of issues for North American real estate in 2023**



Source: *Emerging Trends in Real Estate United States and Canada survey 2023.*

Figure 1-3 **Most problematic issues for Asia Pacific real estate investors in 2023**



Source: *Emerging Trends in Real Estate Asia Pacific survey 2023.*

"This is a very big moment for real estate in terms of confidence in that sort of vehicle," says one global investment manager. As others suggest, this action inevitably raises questions about the valuation of private real estate, and at worst it could be tantamount to investors losing faith in the asset class generally.

For institutional investors, the withdrawal from these funds is at least partly a response to what is known as the "denominator effect", when falls in the value of their equity and bond portfolios can hinder the amount they invest in private real estate. In effect, their allocation to property, slower to be revalued than other asset classes, increases relative to falling equity and bond values and therefore prevents further investment or forces asset sales.

As a result, 32 percent of global institutional investors with US$11 trillion in total assets considered their portfolio over-allocated to real estate in 2022, up from 8.7 percent in 2021, according to a survey published by Hodes Weill & Associates and Cornell University late last year.

As reflected in the regional reports, the denominator effect is regarded as more of an issue in the US and Europe than it is in Asia Pacific, with the exception of Australia. And it remains problematic, according to institutional investors interviewed for this Global edition.

"I don't think that the denominator effect will correct itself very quickly," one says: "Our budgets will be very small this year for new acquisitions." Another institutional player refers to the knock-on effect on various other capital requirements. "As an institution that is very close to the cap of what we are allowed to own in real estate, we are constrained. We have to be prudent in portfolio management because we need to think of maturing debt that might need to be replaced with equity, we have locked-in forward fundings over purchases for developments, and ESG capex is needed to refurb or retrofit some of our buildings. It's complex."

Pricing discovery – mind the gap

Arguably the biggest obstacle to getting deals done this year comes down to the uncertainty over where and when prices will settle. This becomes a circular argument, given that the price discovery process is all the more difficult during periods of low investment volumes and low liquidity.

The prevailing, exaggerated bid-ask spread has been described as "a phoney war" between buyers and sellers, reflecting a sense of resignation and frustration among industry leaders, as if the outcome is entirely out of their hands. One European institutional investor suggests that "it's somehow even philosophical in a way that people are not agreeing on the intrinsic value" of real estate.

An investment manager in Asia Pacific puts it more bluntly: "Sellers are always denying the reality that things are going down, and buyers are trying to bottom fish, so there will be a gap."

There is no consensus on when the overall pricing gap will close. It is widely accepted that logistics has largely re-priced in major markets. An exception here is the UK where some interviewees anticipate a further decline in capital values despite them already falling 26 percent in the second half of 2022, according to MSCI. Others point to an upturn in retail transactions in the US and Europe as evidence that long-standing structural changes are now priced in, and that the sector may offer good value to some investors. But huge uncertainty remains over office markets, which are being buffeted by cyclical headwinds amid the ongoing disruption from hybrid working.

"It's hard to buy something at a 3 percent cap rate when your cost of debt is 4 percent. You must have really strong confidence in your growth in cash flows to do that," says an institutional investor active in the US. "What I think is still shaking out is agreement between buyers and sellers on what the income looks like. It's harder to figure that out for offices than sectors like multifamily."

Another global investment manager is pragmatic about the situation: "Where people

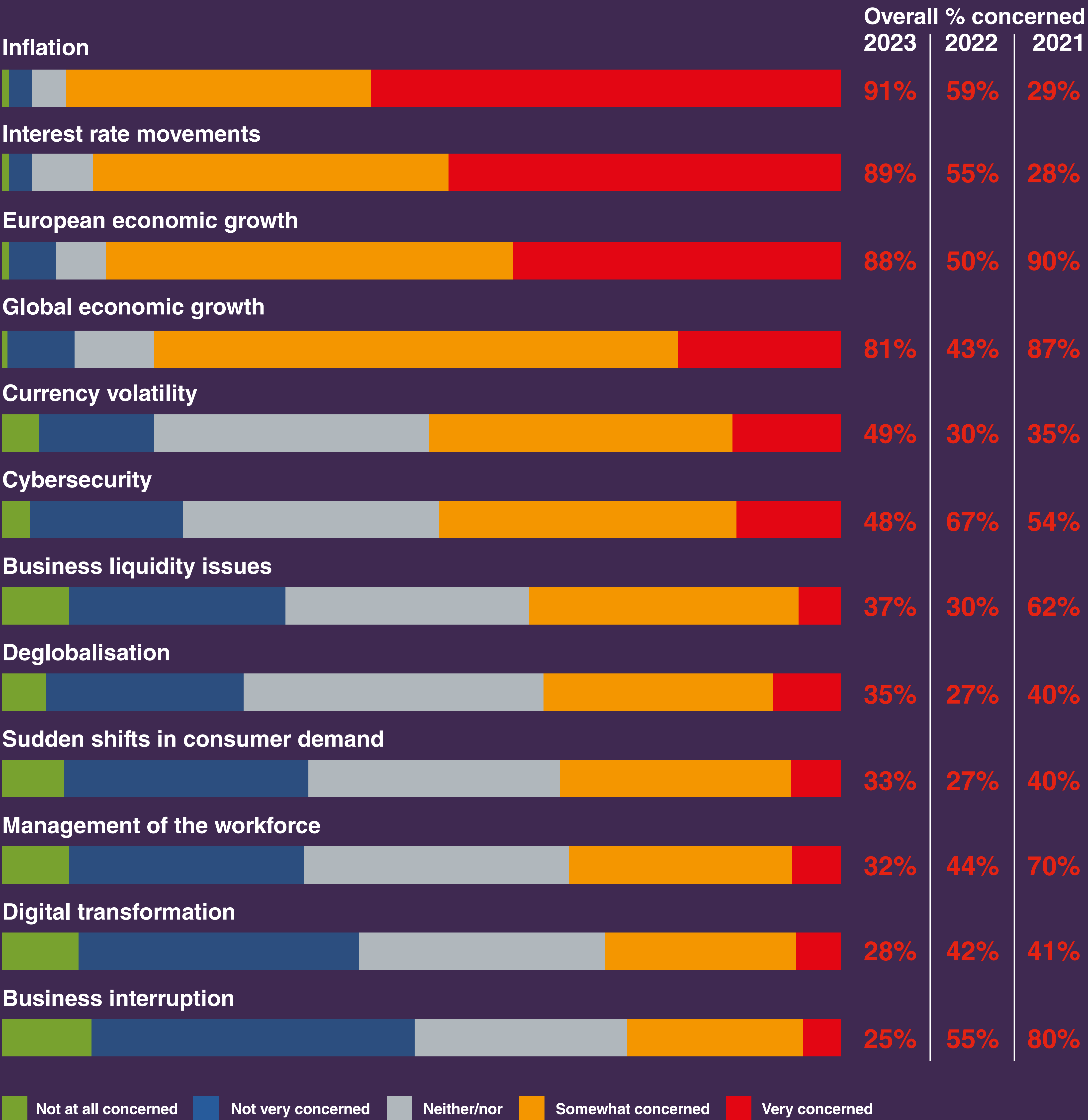
Sellers are always denying the reality that things are going down, and buyers are trying to bottom fish, so there will be a gap.

are valuing their assets, we're going to see some material markdowns from Q4 [2022], which is good for our industry because we lag the valuation metrics on a relative basis to credit and the stock markets.

"Once valuations come down, it is going to make it more likely that sellers and buyers will be able to meet in the middle somewhere."

Even investors in Asia Pacific are facing a similar pricing discovery conundrum despite the general view that the impact of inflation and rising interest rates has been "a little more muted" here than in Western economies. The markets of particular concern are Australia and South Korea, where interest rates have increased the most in the region, according to one regional investor. "We do feel that in these markets, more pain will be felt as covenants start hitting the thresholds and, in some cases, where refinancing can't be done, either at all or at the same level."

Figure 1-4 **The European business environment issues causing concern in 2023**



Source: *Emerging Trends in Real Estate Europe survey 2023.*

TOKYO, JAPAN

> There is still uncertainty around what the global effect of slowdowns in other regions will be on the Asia Pacific markets, and therefore how much yields will move out in the region.

Interviewees expect Asia Pacific cap rates will rise an average of 100 to 150 basis points in 2023. And yet as one interviewee cautions: “There is still uncertainty around what the global effect of slowdowns in other regions will be on the Asia Pacific markets, and therefore how much yields will move out in the region.”

All the interviewees point out not only that the value reduction process has still to play out fully in many markets globally but, as one investment manager says, “It will also be very bifurcated between the prime assets in good locations and those assets that may find themselves stranded in poor locations or requiring significant capex.”

As this manager concludes, depending on where the price discovery ends up, investors may have to underwrite lower returns on the same sort of assets and sectors, like for like, compared with a year ago. There will clearly need to be greater scrutiny on deal quality, financing options and feasibility. “We’re not really looking at a V-shaped recovery during the course of this year, I think it will be a slow process, with probably fairly significant pain to come for indebted players with maybe some U-shaped recovery towards the end of this year and early part of next year.”

Attention turns to the lenders

Integral to any recovery is debt finance and herein lies one of the big challenges to real estate in 2023 and probably beyond. With values falling, there have been more loan-to-value (LTV) breaches. Lenders are now demanding more equity to be injected into existing loans as well as refinancings and new transactions. One way or another, there will be an increase in lending costs.

Reflecting the views of many in the industry, one global investment manager points out that if there is to be a fully functioning property market once again, "the real heavy lifting needs to come in the credit markets." Yet as all three *Emerging Trends* reports warn, debt availability is a global issue.

"All roads lead back to the cost of capital, and it is still quite expensive," this manager continues. "Banks aren't fully back in the market by any measure. Spreads continue to stay quite wide. And when you combine wide spreads with high base rates and limited lending activity, that results in a high cost of capital. And that's what I think is really the biggest driver as to why valuations continue to reset lower."

Lending is more "frozen" than limited, according to another global investor, who stresses the importance of the banks, not just in making the market go round but ultimately in supporting asset prices. "Even though we are an unlevered player, we operate in a levered market. And if you're a vendor, you don't want only one buyer showing up, you want the levered buyers to show up too. You're going to hang on as long as possible until they do show up. But I do think that until there's better clarity, lenders will be cautious."

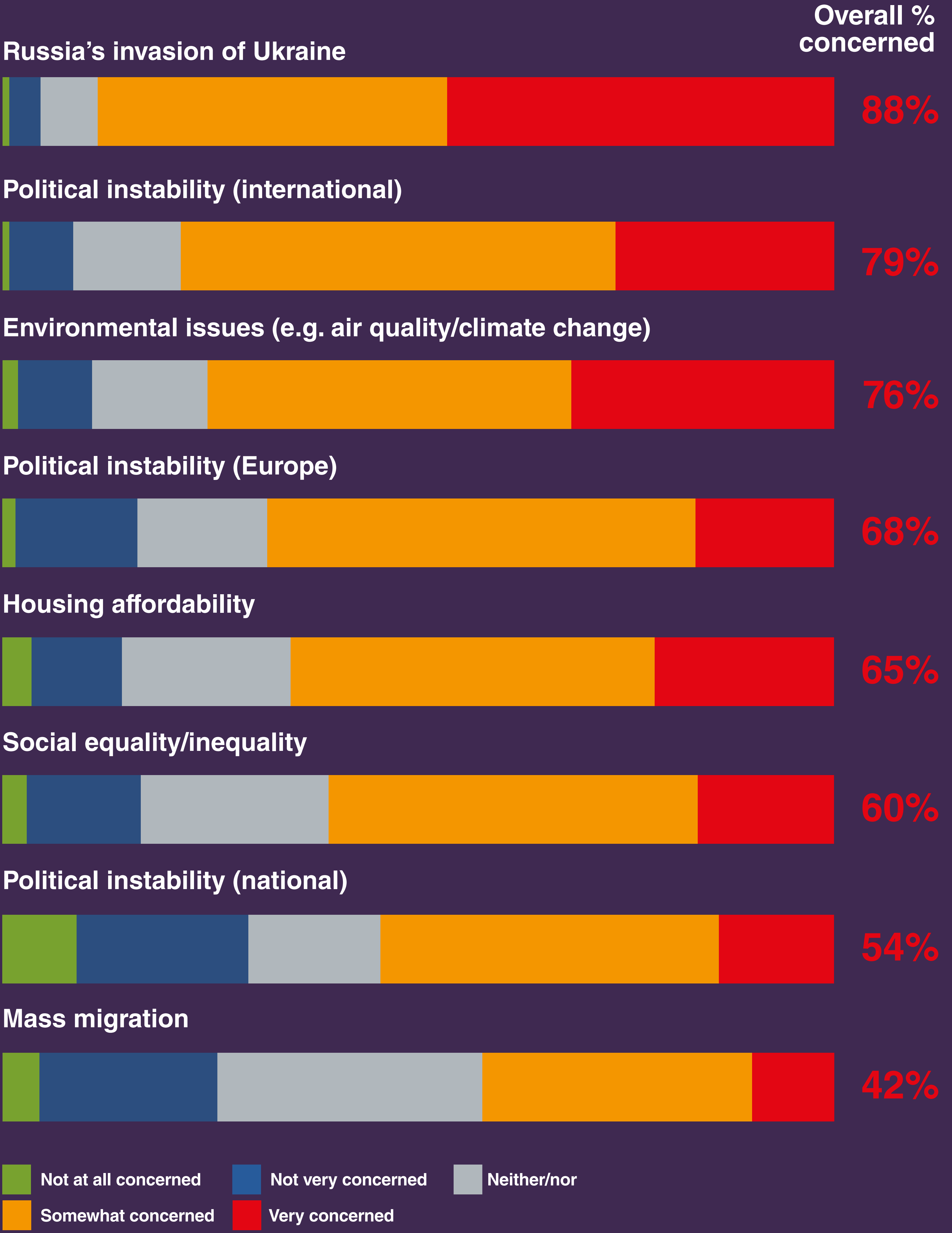
In effect, real estate needs more than equity-rich investors to stabilise values and kick-start markets. But it is clear from the interviews that banks are in "wait and see mode" and that they will prioritise existing clients over new borrowers.

"With high interest rates, it does mean that you can't leverage as much as you could if you want to meet the same covenants," says an institutional investor. "Even on a core asset, it's hard to get financing in the US and Europe in a lot of cases. You don't have that liquidity crunch as severely in Asia. But you will have a much tighter liquidity because borrowing costs are higher."

As highlighted in all three regional *Emerging Trends* reports, finance is still particularly scarce for new development, where rising construction costs and a weak outlook for occupier demand add too much risk for most, if not all, banks. Not so long ago, build-to-core was widely considered as a sound strategy, but rising financing costs are forcing many in the industry to reappraise projects, put them on hold or sell up altogether.

> "With high interest rates, it does mean that you can't leverage as much as you could if you want to meet the same covenants.

Figure 1-5 **European social-political issues causing concern in 2023**



Emerging Trends in Real Estate Europe survey 2023.

JAKARTA, INDONESIA

“

Lenders will put their sponsors under pressure to sell assets, possibly more quickly or at a lower price than they would otherwise like.

For the immediate future, a major determining factor in the banks’ sentiment towards real estate will come from the refinancing of existing loans, particularly on investment deals completed in 2018 and 2019, which were two extraordinarily high-volume years in global markets. Many of those deals were structured on five-year loans, coming to an end this year and next and requiring refinancing at far higher interest rates.

In other words, the ratio by which the income covers the interest payments will have dropped dramatically, exacerbated by the need for more equity. Given the economic slowdown – if not outright recession – the risk is that occupier performance will be weaker and could erode the income being used to pay the interest on loans.

“My risk position is increasing and with that increased risk position I do have to store more capital, and that will limit my flexibility for new opportunities,” says one lender. “But I’m really far away from talking about any credit crunch or something like that. There’s still enough liquidity out there. But it will be a little more selective, and it will be a little more difficult.”

The consensus view is that “difficult” does not equate to distress on the scale of the GFC when the market had to deal with whole portfolios of non-performing loans. But many investors will undoubtedly feel the pain from higher interest rates.

“The way it will manifest itself is that lenders will put their sponsors under pressure to sell assets, possibly more quickly or at a lower price than they would otherwise like,” says an investment manager. “Or they will recapitalise with incoming equity, which might provide opportunities for new lenders to come into the capital structure as well as pay down some of that debt and reduce the LTVs.”

It remains to be seen whether the non-bank lenders will seize those opportunities and plug the funding gap. The interviews are inconclusive although one institutional investor with a long track record of providing debt as well as equity argues that market conditions favour debt. “I don’t think spreads have increased that much, maybe 50 basis points at best, but the base rate has changed a lot. Debt has become much more interesting and it’s competing now with equity, and at the same time benefits from a much lower risk capital allocation. From that point of view, it’s a much more attractive product — it’s using less capital and it generates really good returns. I would expect this part of the business to grow and the equity part of the business to slow down for the time being.”

Adapting to the new normal of high finance and low growth

Real estate leaders once again find themselves dealing with an economic slowdown and financial crisis while somehow trying to address the structural changes to the way people, live, work and interact with the built environment.

Long-term trends such as hybrid working and online shopping were accelerated by COVID-19, and they remain as major challenges to real estate. The pandemic massively reinforced the environmental, social and governance (ESG) agenda, and it has become more pressing as each year goes by. With the ongoing energy crisis, in particular, energy efficient buildings have become a priority for landlords. Rental income and returns are now firmly associated with ESG.

The current situation brings to mind the 2021 edition of *Emerging Trends Global*, which reported on the uneasy juxtaposition of these long-term trends with the immediate economic fallout from the pandemic. Then, as now, the industry was hoping for a boost to investment in the second half of the year as economic output improved and lockdowns ended. Two years on, however, the backdrop to real estate has changed significantly.

Interest rates may stop rising this year but the likelihood that they will settle at an elevated level compared with the post-GFC years is a game changer. Asset management and rental growth are now seen as even more important given “the new normal” of higher finance costs and limited capital growth.

The real question is whether real estate businesses can deliver rental growth against a background of stagnant economies, declining consumer sentiment and the increasing capex requirements bound up in ESG and in making buildings fit for purpose. The importance of ESG to occupiers cannot be overstated here – the trigger for revaluations may not just be refinancings but the expiry of leases.

As one US-based investor says: “The game of being long and levered in an illiquid asset class, with interest rates coming down and cap rate compression can hide a lot of operational issues. Those days are over.”

There is a view gaining currency in the industry that compared with a few years ago allocations to real estate will be directed to a narrower range of sectors. According to a global investment manager: “If you look at the occupational markets, you’ll still be able to find organic rental growth if you focus on sectors with structural drivers — urban logistics and prime offices in central locations that are green and attractively configured for occupiers. I think there are still rent reversion plays in urban mixed-use and some logistics assets.”

Another global player stresses the importance of investing in assets with long-term demand drivers that allow cash flows to grow at a higher rate than inflation and therefore generate real returns at the asset level that outpace GDP. In other words, “start at the macro before mapping the micro”.

That means analysing demographic patterns, such as where households are being formed and where populations are migrating from rural into urban economies. “All roads lead back to where we, as a firm, see there to be GDP growth around the world, and what’s creating that GDP growth, and what’s required from a real estate perspective to create and maintain that GDP growth.”

For many other industry leaders, all roads lead back to ESG – pursuing environmental targets as an opportunity rather than an obligation. Or as one investment manager puts it: the growing concept of brown-to-green conversions. “There’s a limit to how much ESG related performance uplifts can be generated by just simple refurbishment, you often have to comprehensively retrofit the building. And construction costs will remain elevated for the time being. So those benefits will not always easily be achievable. But I think there are opportunities where you’ll get significant uplift.”

As this manager concludes: “There is growing evidence to demonstrate the existence of green premia in rent as well as in yields, and that will increasingly over time place a stronger underpinning on this kind of capex, which is all very good for the environment we live in.”

CHARLOTTE, US

Trends and talking points

Making offices fit for purpose

More than three years on from the onset of COVID-19, great uncertainty remains as to how much companies and their employees will use office buildings in the future.

Though the office sector is likely to remain a mainstay for most institutional investors, there is no consensus around where occupier demand in a hybrid working world will settle. But there is a strong sense that the sector will experience something of the same disruption as retail albeit through different structural drivers. One global investor speaks for many in declaring: “Office is the new retail.”

Where there is some unity among industry leaders it is around the belief that "high quality" and energy efficient, city centre offices will command premium rents and prices. “Bifurcation” is an oft-quoted word in real estate generally but particularly in relation to offices: between prime and secondary, ESG-compliant and non-compliant. The risk of obsolescence is invariably the sub-text here.

“Whether you’re in the US, Europe or Asia Pacific, you’re seeing a similar phenomenon around secondary and tertiary office assets having a whole range of different stresses,” says a global investment manager. “Many occupiers are reducing the amount of space that they need because some of them are operating hybrid working policies. And at the same time, landlords are coming under pressure with the need to upgrade assets from an energy efficiency and ESG certification perspective. And increasingly, anything which is far from transport nodes will suffer. But I think that phenomenon is the case across all major developed markets, anywhere in the world.”

Yet the definition of “high quality” is open to wide interpretation and even the strength of demand for city centres, according to one institutional investor, needs to be broken down still further to the “micro environment” in and around an office building. “We see the office as being experiential,” says this investor, “kind of what we went through with retail when it started getting disrupted by e-commerce.” Another institutional investor predicts that of all the real estate sectors, offices will be “most subject to price discovery or adjustments” in the current economic slowdown, adding: “We don’t see the sector as a whole recovering in the same way, and so we are very active in terms of asset management strategies and making sure we have the right assets in our portfolio.”

CO-WORKING SPACE, MILAN, ITALY

BOSTON, US

The biggest thing on people's minds in the US right now is the future of office and remote work.

"The biggest thing on people's minds in the US right now is the future of office and remote work," says one global player. An institutional investor, with office assets around the world, points out that in the US, "the entire office sector, even the good assets, is impacted by remote working", arguing that it is a much stronger phenomenon there than in Europe and Asia Pacific. "We have a bifurcation between secondary and primary assets, and we seem to have a bifurcation between the US and the rest of the world."

It is debatable, however, that there is much greater clarity over future office trends in Europe than in the US. The problem in Europe is compounded by energy prices acting as much more of a drag on short-term occupier demand than in other regions. What is more, the prevailing challenge in refinancing real estate loans in Europe is concentrated on offices.

MSCI has calculated that for office investment transactions in New York and London to revert to historical supply/demand levels, prices would need to decline by 10.4 percent and 29.3 percent respectively. In its latest analysis, Oxford Economics has indicated a further pricing correction of around 30 percent for major European office markets in 2023.

But these calculations assume that historical supply and demand is still relevant. Many industry leaders are working on another assumption, that office occupancy will trend downwards as a result of hybrid work practices.

By contrast, since the early days of lockdown the persistent rhetoric in Asia Pacific has been around, as one institutional investor puts it, "the pull factor of the office" in many countries somehow making the sector less exposed or susceptible to hybrid work practices than it is in other parts of the world.

But there seems to be more uncertainty around offices in the region now. As *Emerging Trends Asia Pacific* points out, despite a preference among employers for office-centric working, the staying power of remote work has been unexpectedly resilient in cities where homes are often regarded as being too small for people to be productive.

If anything, the interviews for the Global edition suggest that no-one should jump to conclusions, given the sheer diversity of markets across Asia Pacific. "You have to have local knowledge. And you have to have the capability to do active repositioning of assets because it's very easy to go wrong. If you take Japan, for example, you'd find many old offices in Tokyo that are located far from transport nodes and not in any way environmentally efficient," says an investment manager.

"If you look at large cities – the core CBD, the big office towers – I would not see them as immune to what we have seen in other regions in terms of the dynamics in the office sector. I would not say that everything there is future-proofed," a global investor observes. "When we develop offices in Asia, it's not what we were doing in the office sector in the US 10 years ago. Even if the working dynamics are still holding with some occupancy, we still have to ask, is it going to stay? And what's the value proposition of these buildings?"

Clearly each office market has its own defining characteristics and economic pressures but as the interviews underline, the industry is facing the same broad questions and challenges around the world.

"I still like the office sector, per se," concludes a global investor. "It is much more challenging than before COVID, but I think that's a good thing because it pushes our industry – owners and occupiers – into thinking and including the ESG piece.

"It is now easier to discuss and be brought to investment committees and board meetings than maybe before. It's just one additional layer on top of the non-ESG conversation we're having around repurposing and retrofitting."

Leading logistics

Logistics has long been one of the main real estate beneficiaries of technology but the sector's growth is also rooted in basic supply/demand dynamics, which is why occupancy levels are at or near record levels in North America, Europe and Asia Pacific.

For years there have also been concerns raised in *Emerging Trends* about cap rate compression in logistics, and so there was some irony in the correction that started late last year in Western markets when tenant demand was so strong. In Asia Pacific, one interviewee points out, it was more of "a pause in the aggressive growth of pricing" than a correction.

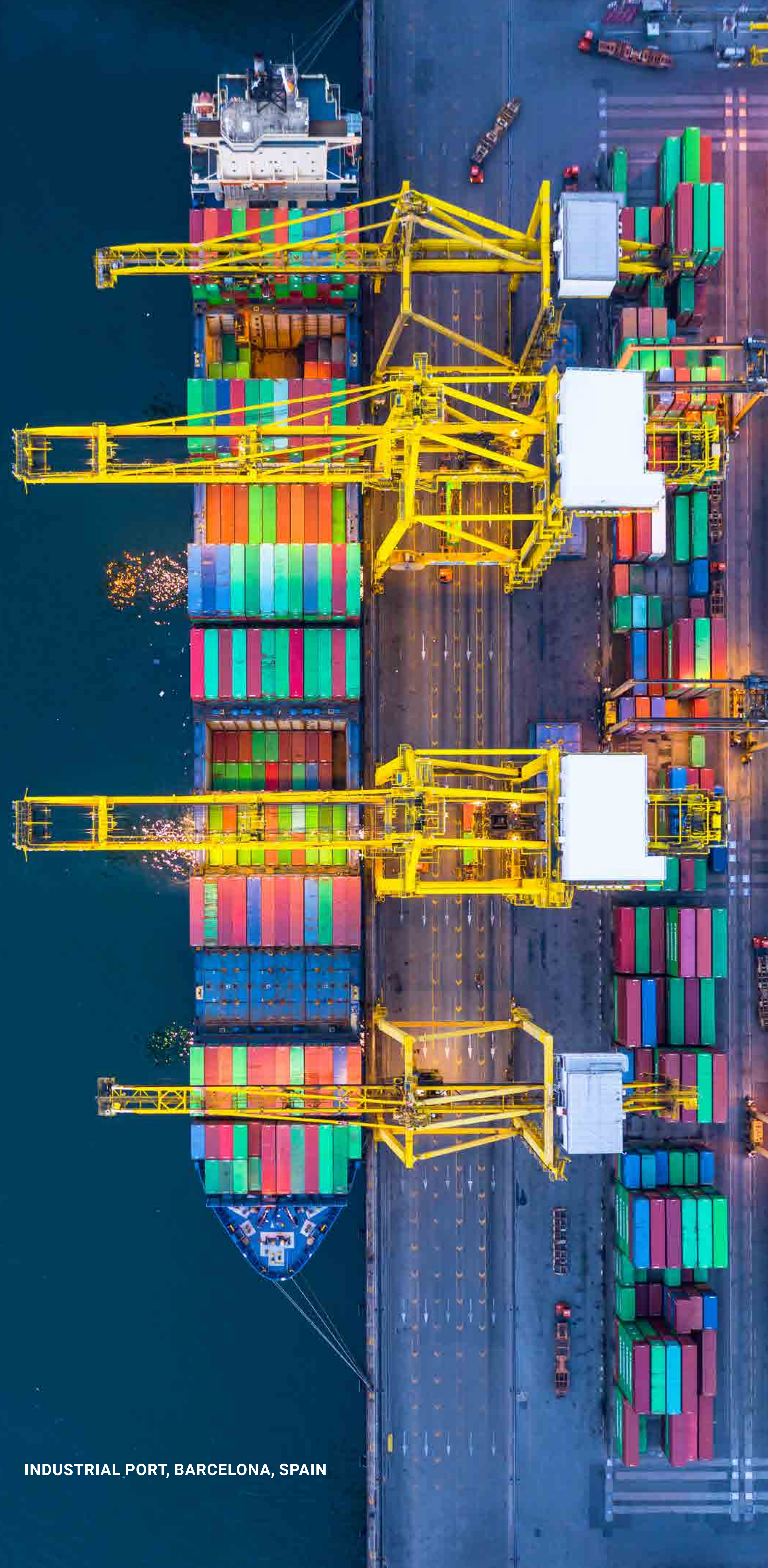
Yet the sector seems to be emerging from the current market malaise stronger than ever, with the supporters once again far out-numbering the sceptics. Inevitably the re-pricing in some markets has already reinforced the sector's short-term appeal. But most interviewees believe logistics remains a structural growth story, and that it is based on much more than e-commerce.

"The bigger game is the whole demand for urban logistics and light industrial space for all sorts of uses, not just e-commerce," says one investment manager.

"Demand for modern urban space is expected from small- to medium-sized occupier groups, contributing to the overall supply chain of local manufacturing and commercial industries."

The impact of rising interest rates has been disproportionately hard on owners of low-yielding prime logistics compared with other sectors. But as this manager points out: "The saving grace for those landlords is that there should be rental growth coming through if they're good quality assets in good locations. It's unlikely to fully offset the immediate impact of those yield movements, but over time, it will offset the value falls."

Demand for modern urban space is expected from small- to medium-sized occupier groups, contributing to the overall supply chain of local manufacturing and commercial industries.



INDUSTRIAL PORT, BARCELONA, SPAIN

Retail revival?

It would be easy to dismiss the prospects for retail property in 2023, given the pressure on consumer spending in the prevailing economic climate. But the sector is showing encouraging signs of life.

Investment managers interviewed for this Global edition note strong operational performance in their retail portfolios in the US and Europe, and not just in the relatively resilient sub-sectors like convenience, grocery and retail parks. Selected shopping centres are also trading well.

"Looking at our own [European] retail portfolio, we can see improvements in the operational side and in tenant attraction," says one manager. "It comes from a low base to start with, but we see brands that are interested in repositioning themselves. It's not a static world."

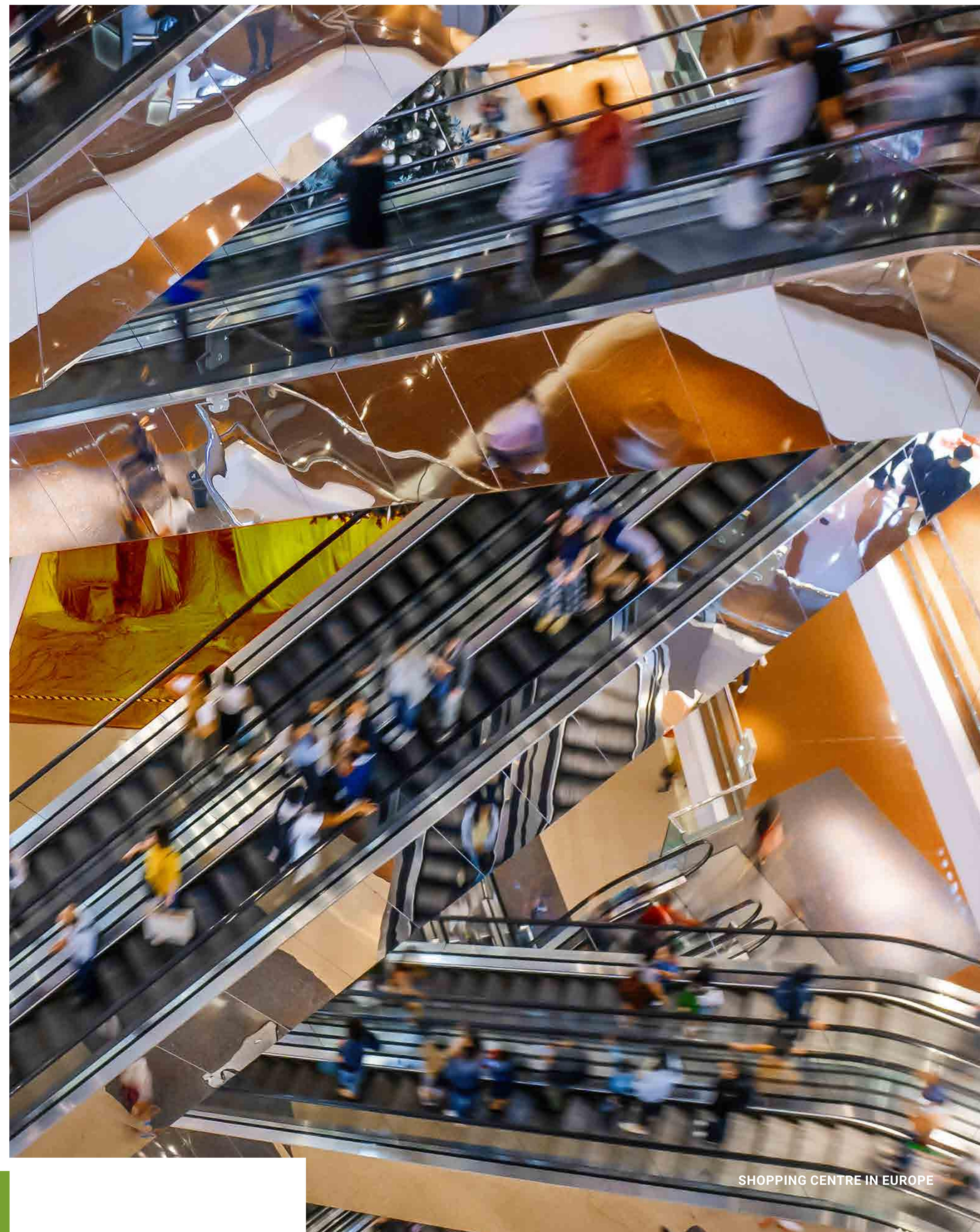
As this manager says, "Not every shopping centre will do well; there will be winners and losers." But the hope is that many years of structural upheaval is now priced in and the bigger centres will be "ripe for institutional investors" whenever the investment market picks up. Indeed, another shopping mall-owning interviewee already reports renewed investor interest in US assets this year, again based on improved trading performance.

No-one is getting carried away. As the US and Canada edition of Emerging Trends points out, "nowhere is the bifurcation in performance greater than in the mall world," where class A assets account for one-third of the inventory but 80 percent of the sales. Class B and C malls "remain deeply challenged".

In fact, an "uneven" retail rebound has been taking place in the US since 2021, boosted by historically low development levels. For most survey respondents, the best retail opportunities by far remain grocery-anchored community and neighbourhood centres, particularly those in primary or high-population growth markets.

Such retail assets seem like safer bets elsewhere too. Another investment manager interviewee for the Global report has been buying supermarkets and local convenience retail assets across Europe and in Australia – all performing strongly.

"Retail is a very interesting sector," this investment manager says. "Consumers will be wary around discretionary luxury purchases, so high street and shopping centres may still suffer. We think there's a sweet spot in terms of essential retail formats, more weighted towards the non-discretionary mix, and especially for assets that are well located close to growing conurbations. And these assets will often lend themselves to last-mile logistics and click-and-collect-type activity as well."



SHOPPING CENTRE IN EUROPE

LONDON, UK

Housing matters – for better or worse

A lack of affordable housing has been highlighted by *Emerging Trends* as a serious problem across most Western markets for years, and yet there appears to be no let-up in sight.

Two-thirds of respondents to the European survey are concerned about housing affordability in 2023 while the interviews reveal further concerns over the political uncertainty around housing policy.

Rising interest rates may have dampened demand but as the North American report declares, housing is still too expensive. The US median home price has soared by 30 percent since the onset of COVID-19, putting affordability at its lowest level relative to income in three decades.

Though less of an issue for respondents to the Asia Pacific survey, housing affordability in the region cannot be ignored. As the Asia Pacific report points out, one of the consequences of higher mortgage rates in many markets across the region – Japan being a notable exception – is that home purchase prices are moving out of reach of more people.

For investors, however, the other side of this widespread supply-demand imbalance has been a long-term reallocation of capital from unfavoured sectors into residential. This shift of capital led to apartments overtaking offices to become the number one global sector by deal volume in 2021, retaining top spot in 2022 with US$355.5 billion of sales, according to MSCI Real Assets.

Industry leaders canvassed by *Emerging Trends* suggest that market conditions appear to be reinforcing the long-term supply-demand imbalance, not least the leap in construction and labour costs over the past year, which has restricted residential development.

As a consequence, various forms of housing dominate the top 10 sectors for investment prospects in both the European and North American reports. In Asia Pacific, investors have begun realigning strategies in favour of "more defensive property types" with more reliable recurrent income, including multifamily, senior living and student housing.

However, it is not all about investment returns. Over recent years, *Emerging Trends* has observed how a growing number of investors are linking residential to the S in ESG. Perhaps one of the more noteworthy trends for 2023 – something of a breakthrough – lies in the European investment rankings, where social housing is in fourth place compared with 12th last year.

Mixed outlook on cross-border recovery

Transaction volumes for Europe, the Americas and Asia Pacific in 2022 make for sober reading – down 31 percent, 24 percent and 15 percent respectively, according to MSCI Real Estate.

The uncertainty created by high inflation and rising rates stifled international flows of capital, and some interviewees for this Global edition believe it will be domestic investors who will lead any upturn in activity in each region. "The currency volatility encourages that too," says one. Other global players see cross-border opportunities emerging despite the gloomy economic outlook, particularly for Europe. One North American-based investor believes "the Ukrainian war has accelerated dramatically European energy independence initiatives", adding: "It is very difficult to build in most of the major markets in Europe and so the supply-demand balance has continued to sustain itself."

Another North American interviewee sees "Europe being more complicated in the short term" but views Asia Pacific as "an interesting diversification opportunity" and is committed to investing there.

A global investment manager observes growing interest from US and European investors in Asia Pacific, partly because the economic outlook and occupier demand in most major markets are "relatively" strong. "Income growth will mitigate some of the cap rate expansion that we would expect in the region because of interest rates going up."

Figure 1-6 **Top cities for real estate investment in 2023**

Source: *Emerging Trends in Real Estate Asia Pacific, Europe, United States and Canada 2023*

	Europe	USA	APAC
1.	London	Nashville	Singapore
2.	Paris	Dallas/Fort Worth	Tokyo
3.	Berlin	Atlanta	Sydney
4.	Madrid	Austin	Osaka
5.	Munich	Tampa/St Petersburg	Seoul
6.	Amsterdam	Raleigh/Durham	Melbourne
7.	Frankfurt	Miami	Ho Chi Minh City
8.	Hamburg	Boston	Shenzhen
9.	Barcelona	Phoenix	Jakarta
10.	Milan	Charlotte	Shanghai

Figure 1-7 **Transaction volumes in 2022**

Americas

	(US$ bn)	YOY(%)
United States	619.6	-14%
Canada	26.9	-14%
Brazil	0.5	-79%
Puerto Rico	0.3	30%
Americas	648.1	-15%

EMEA

	(US$ bn)	YOY(%)
United Kingdom	72.5	-19%
Germany	50.8	-59%
France	38.8	-7%
Netherlands	16.4	-22%
Sweden	16.3	-56%
EMEA	288.8	-31%

Asia Pacific

	(US$ bn)	YOY(%)
China	40.0	-31%
Japan	36.1	-19%
South Korea	32.7	-25%
Australia	32.6	-25%
Singapore	10.9	19%
Asia Pacific	172.4	-24%

Table 1-8 **Global capital trends by property type in 2022**

	Volume (US$ bn)	YOY (%)
Office	282.8	-23%
Industrial	246.0	-21%
Retail	135.0	-11%
Hotel	68.5	-10%
Apartment	355.5	-24%
Senior Housing & Care	21.5	-33%
Income Properties	1,109.3	-21%
Dev Sites	701.0	-4%
Grand Total	1,810.3	-15%

Source: *MSCI Real Assets*

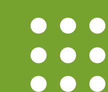
CHAPTER 2

CARBON PRICING

"I believe our sector is going to be hit by a carbon tax in the not too distant future. The sooner we start levying an internal carbon price on our own activities, the sooner there will be greater understanding of how this will impact financial returns."

Property company head

HO CHI MINH CITY, VIETNAM



Money is a language that real estate professionals understand. So, can expressing carbon emissions in monetary terms and establishing a price on the carbon emitted by a company reduce the amount of carbon the industry puts into the atmosphere?

A growing number of real estate players see carbon pricing as a significant weapon in their armoury as they attempt to decarbonise the built environment and play their part in tackling the climate crisis.

Until now, the concept of placing a monetary cost on the carbon a company or building emits has been more prevalent in other sectors. But it is on the rise in real estate, through companies putting an internal price on the carbon their portfolios create, or in the form of taxation or regulation by local authorities and national governments.

Carbon pricing is a complex issue, raising difficult questions about how to make polluters in a society pay in a way that changes behaviour, how governments can work together to solve common problems without hindering their economies and how to avoid penalising those least able to pay for energy or reducing emissions.

Global Emerging Trends has undertaken one of the first deep dives into how carbon pricing is expected to impact the real estate industry's efforts to decarbonise. It is no silver bullet, but it does have the potential to change the way companies think and act when measuring and reducing emissions from their portfolios.

The current problem with the system is that in many cases it is being applied voluntarily, and the carbon prices being applied are not high enough to push companies to decarbonise.

With a few exceptions, carbon taxes being applied by governments are too low to force change. The carbon prices that companies are setting on themselves are usually higher, in many cases at or near the level academics and international bodies believe will help the world meet the Paris Agreement target of limiting global warming to 1.5 degrees Celsius.

But the fact that carbon pricing is so unevenly adopted and applied means that its efficacy is reduced. As one global investor says: "While it is noble and helpful for individual companies to set an internal carbon price, it's very hard to be really effective across the industry if it's just a company-by-company approach."

More realistic pricing, from companies and regulators, and a wider adoption are required if carbon pricing is to live up to its potential.

the percentage of real estate companies that use carbon pricing or plan to do so in the next two years.

Source: *McKinsey and the Carbon Disclosure Project*

MUNICH, GERMANY

US$52

the median price per tonne of carbon emitted being levied upon themselves by real estate companies that are using carbon pricing.

Source: *McKinsey and the Carbon Disclosure Project*

Knowing the price of everything

There are two main forms of carbon pricing, both of which have the potential to have an impact when it comes to real estate decarbonisation.

First, internal carbon pricing, which involves a company establishing a price on the CO_2 it emits. This has two main forms:

- A shadow carbon price, when a company puts a price on each tonne of CO_2 emitted. But it is purely theoretical — the company does not pay that money to anyone or set it aside.
- A full fee-paying internal carbon price, when a company puts a price on the carbon emitted and pays the money into an internal fund or ring fences it in some way. The company can do what it wants with the money, but usually it is put towards capital expenditure needed to reduce portfolio emissions, or fund offsets.

Second, there is external carbon pricing, where a price is levied from an outside body on carbon emitted by a company. Again, there are two main forms:

- Carbon taxes are levied by a local authority or national government on the CO_2 emitted by a company.
- Emissions trading schemes (ETS) are imposed by a government or regional body, such as the European Union (EU), when companies have a certain allocation of carbon they can emit. They then have to buy permits for each tonne of carbon emitted above this level. Companies can trade the permits, putting a market price on carbon. As time passes the allocation of "free" carbon emissions reduces, making the permits more valuable, raising the price and encouraging companies to reduce emissions.

The latest research from CDP (formerly the Carbon Disclosure Project), a not-for-profit organisation, shows that there had been an 80 percent increase in the number of companies in all sectors planning or using an internal carbon price in the five years up to 2020, with more than 2,000 companies disclosing current or planned use of internal carbon pricing to CDP.

The World Bank says that as of 2022, 68 carbon pricing instruments, including taxes and emissions trading systems, are operating worldwide and three more are scheduled for implementation. Instruments in operation cover approximately 23 percent of total global greenhouse gas (GHG) emissions. This represents a small increase in total global coverage as a result of four new systems commencing in the past year.

Internal efforts

Looking at internal carbon pricing, it is a niche endeavor when it comes to real estate and decarbonisation. A study by McKinsey in 2019 found that of the top 100 global real estate firms by revenue, just 4 percent were using internal carbon pricing and publicly disclosing this fact, with another 2 percent planning to do so in the next two years. That compares to 40 percent in the energy industry and 29 percent in financial services. Of the industries analysed, only healthcare came below real estate. A total of 88 percent of real estate companies did not report on whether they were using or would use internal carbon pricing.

According to industry leaders interviewed for *Global Emerging Trends* one reason for the slow adoption is the voluntary, unregulated nature of carbon pricing in most jurisdictions, which means some firms feel it would place them at a commercial disadvantage.

“If you put an internal carbon price on emissions and another investor doesn’t, you just miss out on the deal because someone else can pay more for a scheme,” one interviewee says. “A lot of people you speak to are wary about that.”

Another interviewee suggests that many real estate firms are still at an early stage of their sustainability journey, and are currently focusing on processes like gathering data on emissions and working out how to meet new reporting requirements. For many, the level of sophistication required to adopt carbon pricing is still some way off.

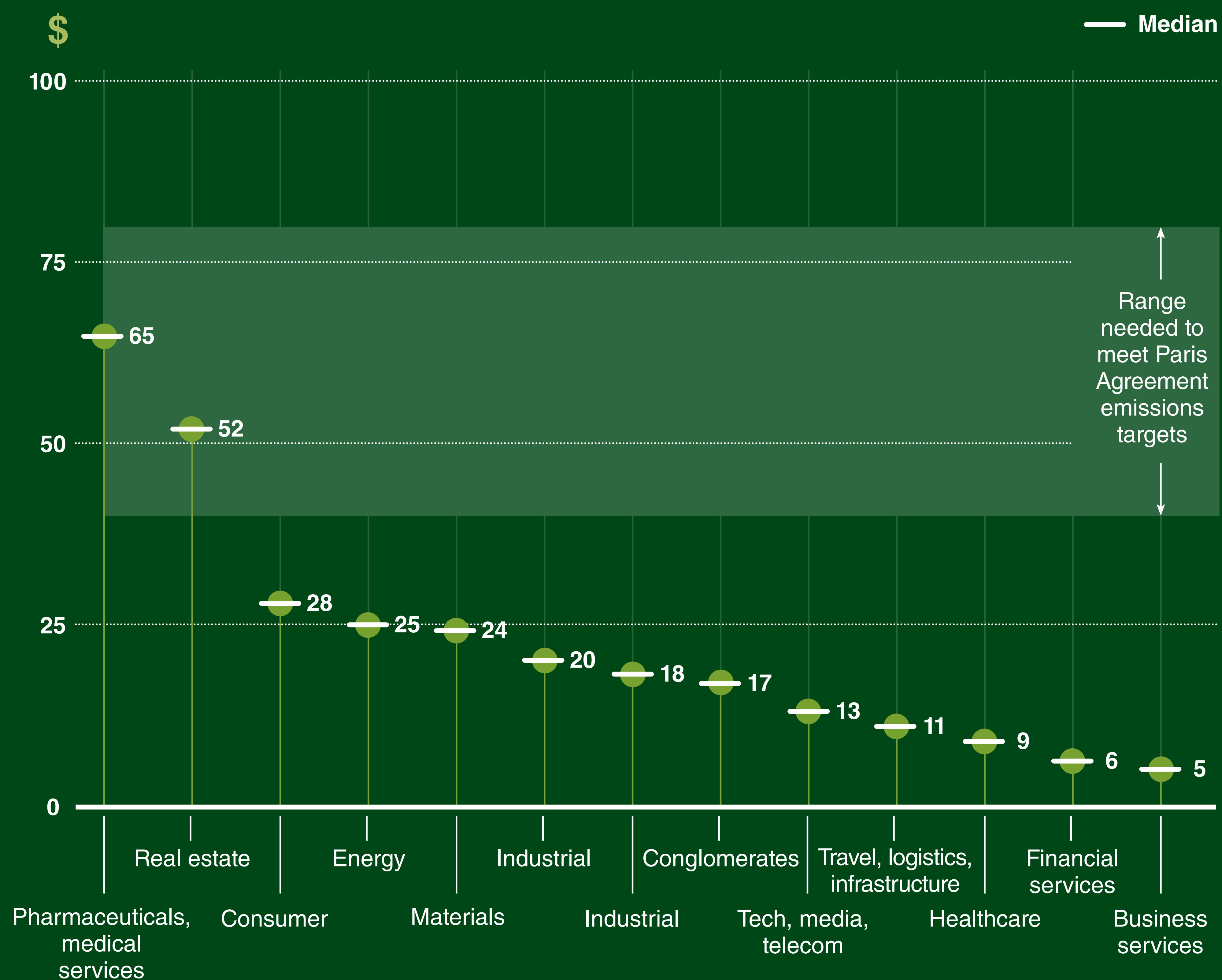
But sustainability reporting was once seen as an esoteric field that risked placing a firm at a commercial disadvantage, one interviewee points out, and carbon pricing could be more widely adopted as firms need to add more weapons to their armoury when it comes to hitting decarbonisation targets. “This is fast growing,” the executive says. “Fifteen years ago, when people talked about sustainability reporting, people would roll their eyes at you. Today it’s mandatory.”

15 years ago, when people talked about sustainability reporting, people would roll their eyes at you. Today it’s mandatory.

Indeed the international Task Force on Climate-related Financial Disclosures (TCFD) recommends that companies use and report on carbon pricing as a way of measuring climate risk. Many countries – including Singapore, Canada, Japan and South Africa, New Zealand, the UK and members of the EU – have made TCFD's recommendations mandatory or plan to do so in the next few years.

Source: McKinsey/Carbon Disclosure Project

Figure 2-2 **The internal pricing of carbon emissions varies within and between industries in 2019**



Source: *Mckinsey*

There is no public information relating to the geographic breakdown of real estate companies using internal carbon pricing, or subject to external carbon prices. But to give a broader example, of the circa 2,000 companies that have declared to CDP that they use internal carbon pricing, 608 are located in the EU, 264 are in the US, 252 in Japan and 202 are in China, as of 2021. Markets with a notably high number of companies using internal carbon pricing compared to the size of their population are Taiwan with 128 companies and Canada with 71 companies.

For those companies that use an internal carbon price, several benefits are commonly cited on how the mechanism can aid decarbonisation.

The most regular is behavioural change, in several different forms. “That was the essence for us, to try and get behavioural change,” one interviewee says. “We're isolating the costs of our carbon activity, which in turn is coming up as a cost item in development appraisals, which in turn, is encouraging the teams to think about their behaviour.”

Translating the amount of carbon emitted into a monetary amount puts it in a language that most staff at a real estate firm can understand. “If you were to say you've saved 10 tonnes worth of CO_2”, one interviewee says, “most people wouldn't understand the magnitude of that number. Whereas if you convert it to money, then it suddenly comes back into the real world again.”

In particular, it has changed the nature of the conversations in investment and development committees, and the actions that are being undertaken. “I used to be in the transactions team,” one interviewee says. “Before, we looked at how much carbon a scheme emitted, but it wasn't a big focus. After the carbon price went into effect it was the first time I've seen calls where it made up the majority of the discussion – can we approve an investment that has this amount of carbon?”

According to one interviewee with a focus on development: “I look around at the conversations we're having in the office today versus even three years ago, when we began the real detail journey of our roadmap, it's just off the charts different.”

Before, we looked at how much carbon a scheme emitted, but it wasn't a big focus. After the carbon price went into effect it was the first time I've seen calls where it made up the majority of the discussion – can we approve an investment that has this amount of carbon?

Putting an internal price on carbon can also change the metrics when it comes to development appraisals, making materials or processes that are less carbon intensive but might have seemed more expensive stack up against “cheaper” alternatives.

“At that point, almost all of the heavy interventions, all of the big decarbonisation building retrofits, the downtime of tenants associated with running these interventions that don’t just last three months, they often last a year … all of those begin to be far more viable,” one interviewee says.

Using mass timber in commercial buildings, for instance, can be more expensive than steel, and often takes longer, because insurers and local authorities need to be educated that it is safe, and specialist contractors need to be found, another interviewee adds. And time is money. But once a significant carbon price is added to steel, then the extra time needed to develop a timber-frame building compares favourably.

When a decarbonisation fund is established, then an internal carbon price is particularly effective, interviewees say. Having that pot of money available for retrofits can mean the difference between them being cost-effective or not.

Several of the firms that utilise internal carbon pricing apply the levy to embodied carbon as well as operational carbon whereas external carbon pricing instruments like taxes or emissions trading systems so far only apply a price or tax to carbon from building operations. This misses a large proportion of the overall carbon emitted by a building over its life cycle – up to 75 percent, according to the Energy Institute of America. This is an area where external carbon pricing instruments need to catch up with the way some companies are applying internal carbon pricing.

A report from the International Financial Corporation recommends that to capture emissions in “a more complete way”, carbon pricing mechanisms should be applied to “the entire life cycle of constructed assets”. Published in 2019, the report also concedes, however, that it is difficult to determine which companies in a building’s supply chain should “pay” for those emissions.

Internal carbon pricing does have its critics, with the main line of argument being that an internal mechanism does not truly hold a company to account.

“The main difference between the carbon price which is external and the internal one is the external is real,” one interviewee says. “In your account, you have a line somewhere, but it’s just a line. And you might as well just ignore it. So, you put it here for the fun of it, but it doesn't hurt anybody, and it doesn't change your actual returns. And if you don’t like the result of the line, you can just literally ignore it.”

Another criticism is that decarbonisation funds fail the additionality test. If a company applies a carbon price and then uses the funds generated to retrofit its existing portfolio, it is just using the money to do something which the market, in the form of tenants, would force it to do anyway.

US$127

the price per tonne needed to be applied by companies to hit Paris Agreement climate goals.

Source: *Columbia University's Dr Noah Kaufman*

PARIS, FRANCE

68

the number of countries with a carbon tax or that are part of an emissions trading scheme.

Source: *The World Bank*

ATLANTA, US

Regulation and the level playing field

To create a truly level playing field between companies and countries, and to give the mechanism real teeth, many interviewees argue that carbon pricing needs to be imposed on the industry externally, in the form of a carbon tax or emissions trading systems.

That is happening in some places already, and the expectation among several interviewees is that such regulation will only become more prevalent. As one says: "It's probably reasonable to assume that by 2030, there'll be some form of carbon tax in place in many major jurisdictions." For many, imposing an internal price is a way of "practicing" for the moment when carbon pricing becomes mandatory.

Real estate is already subject to carbon pricing instruments in various jurisdictions or will be very soon. But of those 68 countries that have a carbon tax or trading scheme, only a handful apply to real estate.

One of the most significant locations is New York, where Local Law 97 means that owners of buildings of 25,000 sq ft (2,322 sq m) or larger are taxed if carbon emissions exceed a pre-set benchmark. The tax will be introduced this year.

Other similar municipal taxation schemes in the US include Boston's Building Emissions Reduction and Disclosure Ordinance (BERDO), which applies to non-residential buildings larger than 20,000 sq ft (1,858 sq m). According to the Institute for Market Transformation, 30 US cities or local authorities are moving forward with similar regulation in the next two years.

In focus:

examples of carbon pricing from real estate and beyond

GPE

In 2020, UK-listed GPE became one of the first real estate firms to disclose publicly that it would be levying an internal carbon price.

The company set a price of £95 per tonne, which is applied to embodied carbon from its development schemes, calculated at practical completion; and operational emissions from its investment portfolio. The money is put into a decarbonisation fund, which is used to finance the deep retrofit needed to reduce emissions from buildings, support investment in on-site renewable energy supplies and fund research into low-carbon solutions.

"One of the drivers for accelerating that modernisation of our portfolio was the looming Local Law 97," one interviewee says. "That's a good example of how it's impacting our investment decision-making. Owners are looking out at this equipment and saying why wait until 2028 or 2029 to replace something we could replace in 2024 if it means avoiding penalties under Local Law 97 or BERDO for example."

And there is a commercial advantage in acting early on decarbonisation in such jurisdictions; major investors feel the regulation in these cities can give them a competitive edge. "It reinforces our philosophy," one interviewee says, "because we believe that we can operate these lower carbon buildings, which makes us even more competitive in those markets. We like high barriers to entry and to growth."

At the same time, according to the industry perception, ESG has become a topic that has come to separate left and right in the US. But even though such laws are likely to be concentrated in "blue" democratic states, interviewees say, the regulations will rub off on other jurisdictions, as national occupiers demand the same level of sustainable buildings in all locations.

In Canada, each province is federally mandated to have either a carbon tax or an emissions trading system, and in all cases it applies to the heating of buildings. According to a JLL report, Canadian investor QuadReal has found that in some assets in some provinces, the amount needed to be paid in tax equates to C$2 per sq ft – a level that starts to have an impact on valuation.

Europe's emissions trading system will cover the heating of buildings from 2026, a move that was first proposed in 2021. JLL's report suggests that the cost of paying this carbon price would likely be borne by tenants because they typically pay for heating in European buildings. But it will have an impact on asset owners. The higher cost of heating a building means occupiers will start paying much closer attention to the energy efficiency of buildings, as more efficient buildings will mean lower energy bills. This will particularly manifest itself at the point of lease expiry for those less efficient buildings.

This will compound existing trends towards reduced rents and longer letting up periods for less energy efficient stock, as well as lower values "as sustainable buildings become the new normal", according to JLL. As such, returns and values will be negatively affected as obsolescence rates accelerate.

In Singapore, a carbon tax has been applied to building owners covering the operational emissions of a building. Likewise in Germany, the tax applies to carbon emitted from both residential and commercial properties, and the country is seeking a mechanism that means both landlords and tenants pay their fair share. If tenants pay the whole tax then it will not incentivise landlords to improve the efficiency of buildings. If landlords pay the whole tax then there is no incentive for tenants to consume less energy.

> One of the drivers for accelerating that modernisation of our portfolio was the looming Local Law 97.

A system where the tax is split, with landlords paying more if their buildings are less energy efficient, is being explored, although the mechanics of how this would work in practice are complicated.

Carbon pricing vs carbon offsets: what's the difference?

Carbon pricing is not the same as carbon offsetting.

A carbon price is a cost applied to carbon pollution to encourage polluters to reduce the amount of greenhouse gases they emit. A carbon offset involves paying for a project, such as planting a forest, that mitigates carbon you will emit.

Carbon offsets have a price, and – like carbon pricing – it is expressed as a cost per tonne of CO_2 emitted, which can be confusing. And companies might use the funds raised from their carbon price to buy carbon offsets, which is another level of confusion. But they are not the same thing.

40%

proportion of global greenhouse gas emissions covered by carbon pricing instruments at the end of 2021, up from 32% in 2018.

Source: *OECD*

MELBOURNE, AUSTRALIA

Paying a high price to decarbonise buildings

The key question when it comes to carbon pricing, internal or external, is the price level set. And here is where the question of regulation versus voluntary application again comes to the fore.

According to a 2017 study by the Carbon Pricing Leadership Coalition, carbon prices need to be at least US$40 per tonne and possibly as high as US$80 a tonne to ensure the world meets the targets set as part of the Paris Agreement. A recent paper from a group of academics led by Columbia University's Noah Kaufman argues that carbon prices must be at least US$127 a tonne by 2030 for the world to hit 2050 net zero goals.

And carbon pricing today is very far away from that level, with a World Bank study revealing that only 4 percent of carbon taxes or emissions trading systems have a carbon price that will see the world hit Paris Agreement targets.

As far as those covering real estate are concerned, there is a mix of levels. Singapore's carbon tax is US$5 a tonne, rising to US$25 a tonne over time. Germany's is €25 (US$26.39) a tonne. At these levels, there is little chance of a tax prompting a real estate owner to decarbonise because it is cheaper to pay the tax than invest in technology or retrofit a building to make it more efficient. What is more, a report by the UN's Intergovernmental Panel on Climate Change suggests that the amount needed to be spent to reduce a tonne of emissions from a building is higher than the amount needed to be spent per tonne in almost any other sector of the economy.

In focus:

examples of carbon pricing from real estate and beyond

IPUT

Irish real estate investor IPUT sets an internal "carbon levy" of €80 (US$84.57) per tonne on embodied carbon created when it undertakes a development, which it says makes up the largest part of its overall emissions.

It is levied during the development stage of projects, and the money put into a transition fund. Rather than using the funds to retrofit assets within its own portfolio, the money is used to finance projects that focus on carbon avoidance and removal at a greater scale. This is in contrast to many companies that use an internal carbon price. Criteria for use of the transition fund include supporting research and innovative trials of low-carbon solutions to reduce energy use intensity across existing and new assets. It also involves training to upskill IPUT's team and supply chain to develop and operate net zero carbon buildings.

In agriculture, for instance, the amount required to decarbonise is relatively low. But for complex physical assets like buildings, the cost of the systems and interventions that need to implemented to reduce emissions is comparatively high.

In focus:

examples of carbon pricing from real estate and beyond

Yale

US university Yale undertook an experiment using carbon pricing on the buildings on its campus.

Yale took 80 buildings and split them into four groups, with a further 280 buildings used as a control group.

The managers of one group just received information about the energy they used, one was penalised with a carbon charge if emissions went above a certain baseline, while other groups were given financial incentives to reduce emissions.

Yale has concluded that if the structure is designed correctly, carbon pricing can be a way for occupiers to reduce emissions, especially if it provides clear information and incentives.

Again, the US is leading the way on the matter of pricing – Local Law 97 in New York prices carbon at US$268 a tonne, for instance.

"If you run out the numbers, a large building that hasn't made many efficiency investments could face fines in the order of 25 cents to 75 cents per square foot per year," one interviewee says. "That's material because you put a cap rate on it extended out, because fines are in perpetuity, there's a real impact to asset value."

In short, the fines are of a level where, if not addressed, they begin to impact the value of a building.

The price put on carbon by regulators is doubly important, because it influences the prices set by companies when they impose internal carbon prices. European real estate companies that have set internal prices have tended to cluster around the €90 (US$95.03) a tonne mark, because this is a price advised by the UN.

But for some even this price is unrealistically low. "We think the carbon tax should be north of €250 (US$264), probably closer to €500 (US$528) a tonne, in real estate, if you want that to bite, otherwise it is kind of immaterial in relation to the expense that you will need to pay to reduce your CO_2 footprint," one interviewee says.

Recent research from Utrecht suggests that the "fair" price of carbon should be €875 (US$924) a tonne, and this is the price the Dutch city will apply when it comes to running cost/benefit analyses of capital projects it is undertaking.

43%

average decrease in emissions from companies that are subject to carbon pricing since 2005.

Source: *The International Institute for Sustainable Development*

DALLAS, US

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OSAKA, JAPAN

In focus:

examples of carbon pricing from real estate and beyond

Keppel Corp

As part of conglomerate Keppel Corp, Keppel Land is one of a relatively small number of Asian real estate companies to have instituted a carbon price.

It is a shadow price, established in 2020, meaning it does not ring fence any proceeds from the theoretical price. The price started at US$20 per tonne, and will rise to US$50 per tonne over time. The company says the estimated reduction in energy consumption from all of its Green Mark-awarded projects translates to cost savings of about US$68m annually.

Yet it is far from simple for governments to impose a carbon tax on real estate, or indeed any industry, at a level that would quickly reduce emissions and combat climate change. Levying such a tax would be hugely complex, particularly when it comes to housing, which accounts for a huge proportion of the emissions from the built environment.

> Governments cannot address energy poverty and climate change at the same time.

"Governments cannot address energy poverty and climate change at the same time," one interviewee says. "Governments are conflicted between on the one hand wanting to reduce consumption, and therefore needing to increase the price. On the other hand, they don't want to be hitting people who are in energy poverty."

A common refrain from interviewees is that big corporates should shoulder more of the burden, but as one points out, where does that leave social housing providers? They are often huge companies that operate with very tight margins to keep costs down for the most vulnerable members of society.

Another concern is that such a tax could reduce economic growth if applied too quickly and at too high a level. "It would make inflation look like a doddle," one interviewee says.

Carbon pricing also has the potential to create inequality within the real estate industry. As one interviewee points out, there is a tendency here to forget about small and medium-sized enterprises (SMEs), which actually form the majority of the market.

"It is absolutely fundamental that we bring those with us. One of the concerns I have with carbon prices is that if you're working in a small organisation, for example a developer, you already have much harder margins when compared to larger companies. Numbers are already tighter, it's already harder for you to compete with those larger organisations. Some of the feedback from big organisations has been, the carbon price isn't high enough to make any difference to us. But I suspect that if you ask SMEs, it will be a very different response."

One of the concerns I have with carbon prices is that if you're working in a small organisation, for example a developer, you already have much harder margins when compared to larger companies.

In focus:

examples of carbon pricing from real estate and beyond

Utrecht

The governing authority of the Dutch city of Utrecht has "shifted the Overton window" when it comes to levels of carbon pricing.

It commissioned the Netherlands Climate Association to come up with what it called a "fair CO_2 price", which has ended up at €875 a tonne, far higher than the level imposed by most companies and governments.

The authority says it will use this price when executing cost/benefit analysis of capital projects, and the high price would give climate change a higher weighting.

AMSTERDAM, NETHERLANDS

BERLIN, GERMANY

Real estate gets ready to put a price on its emissions

It is perhaps too early in the development of carbon pricing to answer the fundamental question: does it work?

Some data are starting to emerge from industries that are further along in the journey when it comes to adopting carbon pricing. Emissions from organisations operating under the European emissions trading scheme have been cut by 43 percent since 2005, according to the International Institute for Sustainable Development. But it is important to remember that correlation is not the same as causation, and there is nothing to prove that carbon pricing caused this decline. That said, CDP believes there is a “direct correlation” between companies that use carbon pricing and also implement other forms of decarbonisation.

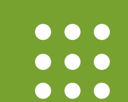
According to one interviewee, positive results are evident in other industries, notably cement and steel. “The cap and trade system, which is put in place by the European Union, is having an impact and the fact that they're now limiting and making it more constrained is having an impact on some [parts] of heavy industry. You have started to see massive amounts of investment going into decarbonisation because of the carbon price.”

By contrast, internal carbon pricing is an infrequently used tool in real estate and is likely to remain so in the near future. Only the largest and most sophisticated companies, that are already measuring carbon emissions, have the ability to put a price on those emissions. But if they do, if that price is set at that right level, the levy rigorously applied and the proceeds used to undertake decarbonisation projects that would not otherwise have been achieved, it can be a useful tool.

While internal carbon pricing is rarely used, interviewees largely agree that external carbon pricing is set to become much more prevalent over the next decade, with the direction of travel clearly laid down by regulation like New York’s Local Law 97, the extension of the EU’s emissions trading system to building heating, Singapore’s carbon tax on emissions and Canada’s various regional policies. In that respect, real estate needs to be ready for a price to be put on its emissions.

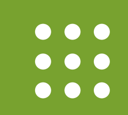
The crucial element is the price at which the levy is set, and whether it is high enough to change behaviour. The interviewees also point out that levies or prices must take embodied carbon into account if the industry is to eliminate the majority of emissions created real estate. Doing that at a time of high energy prices and in an equitable way will be a major challenge. And as all interviewees agree, the industry and regulators must work together to ensure that carbon prices are effective and have teeth.

None of that is simple. But nor is it beyond the capacity of an industry that creates the world in which we live.

ABOUT THE REPORT

MIAMI, US



Interviewees

Allianz Real Estate
François Trausch

alstria office REIT
Olivier Elamine

Apple
Kristina Raspe

Arup
Stephen Thompson

AXA IM - Real Assets
Justin Travlos

Bayerische Versorgungskammer (BVK)
Manuel Philippe Wormer

Berlin Hyp
Assem El Alami

Boston Properties (BXP)
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Established in 1936, the Institute has a presence in the Americas, Europe, and Asia Pacific regions, with members in 80 countries.

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2023 Global Outlook

EMERGING TRENDS IN REAL ESTATE®

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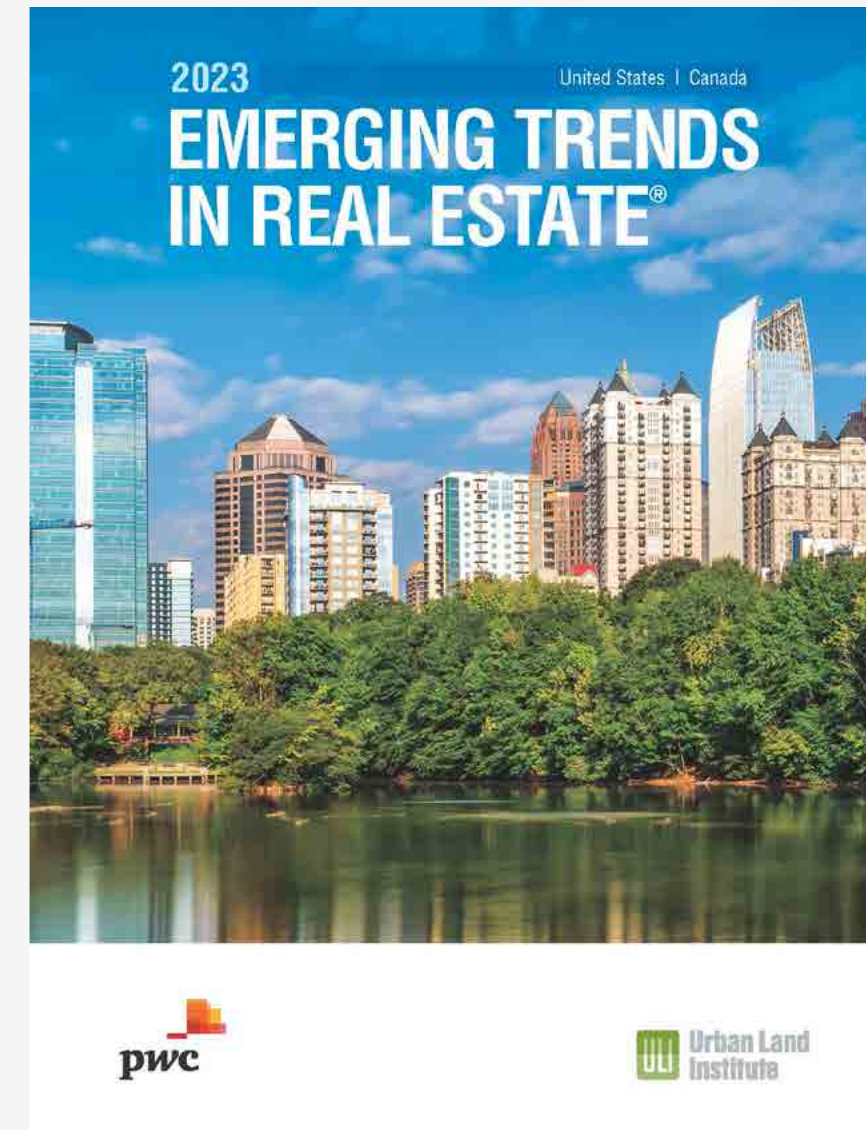

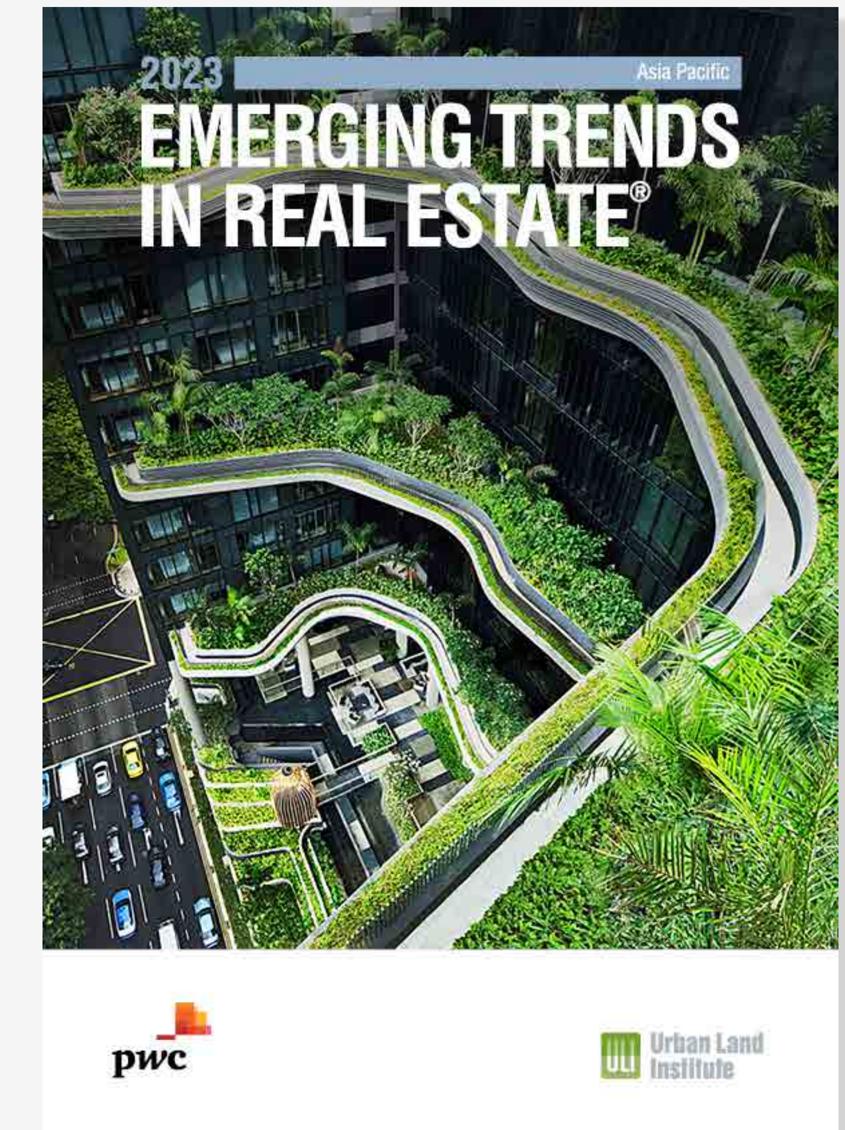

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