

LaSalle Macro Quarterly Q3 2023

July 6 2023

Investing today. For tomorrow.

Q2 2023 macro review:

Markets move with AI acceleration, rate rises, US debt ceiling, and Russia-Ukraine war

Prigozhin & Putin – a 2010 image of the men together as Putin toured a prepared food plant run by Prigozhin – who led a Russian insurrection in June 2023.



Source: Pool photo by Alexei Druzhinin

US Senate passes act resolving debt ceiling



Source: Senate TV

Fast development of Al drives equity markets



Source: Bloomberg Businessweek, 19 June 2023 Edition

Bank of England Governor Andrew Bailey announces another rise



Source: Henry Nicholls/Pool/Reuters, 22 June 2023

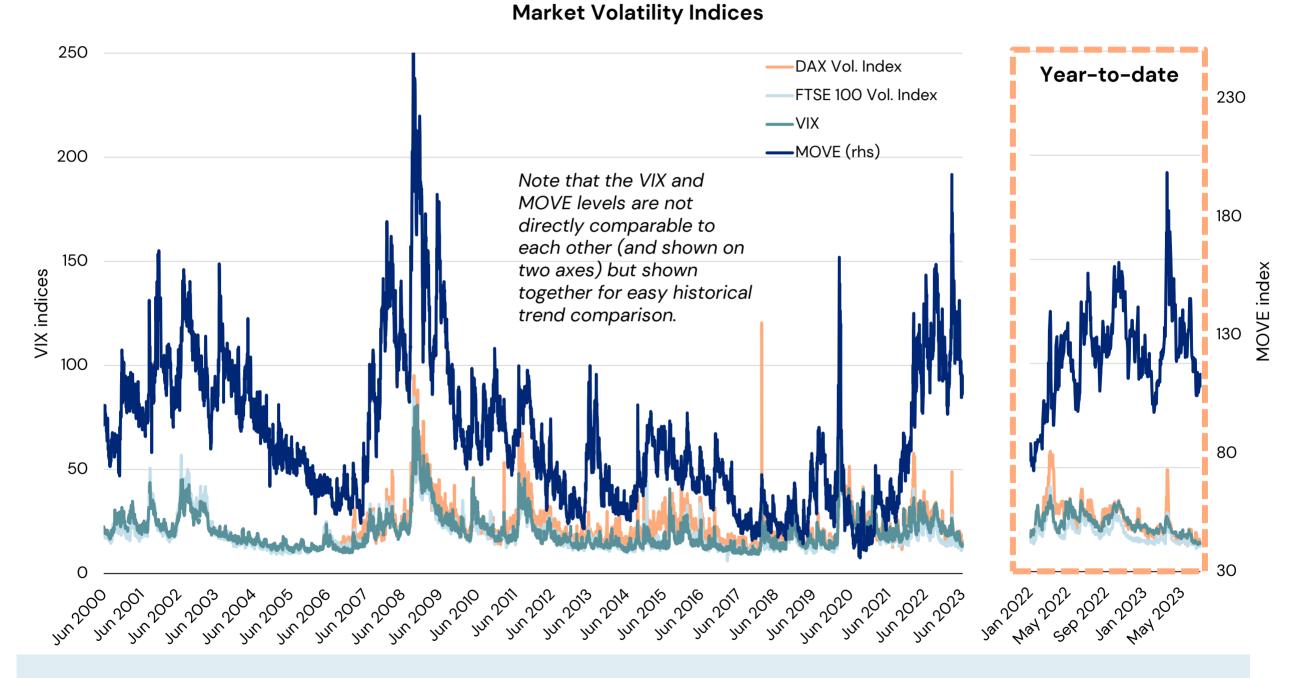
G7 Summit in Hiroshima, Japan on 19–21 May 2023



Source: G7 Hiroshima

Bond market volatility still elevated vs. equities

MOVE index down vs. March but still elevated while equity volatility is low

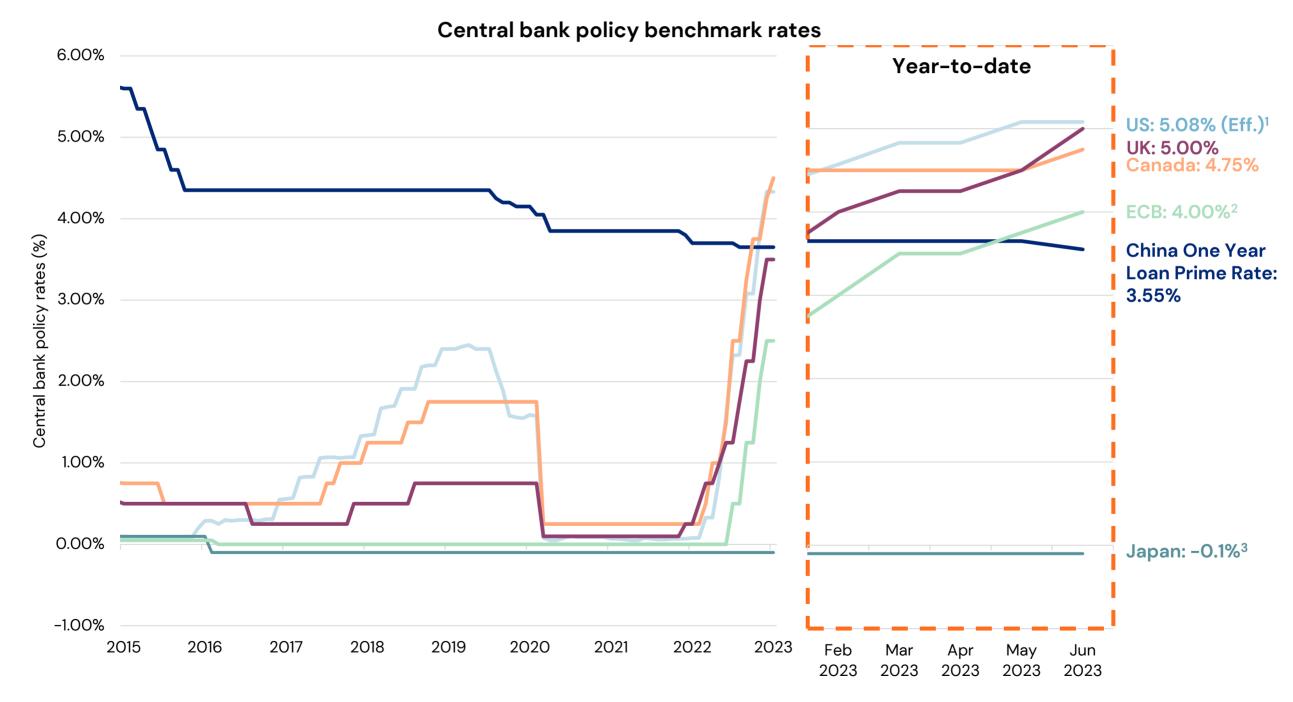


The MOVE index is based on the implied volatility on one month US Treasury options, weighted based on 2, 5, 10, and 30 year contracts for the next 30 day period. It reflects both price uncertainty and risk aversion.

*VIX is the Chicago Board Options Exchange's CBOE Volatility Index. Source: Bloomberg, LaSalle. Data through 29 June 2023. Note: No assurances are given that these trends will continue or materialize as expected. Nothing herein constitutes a guarantee or prediction of future events or results and accordingly the information is subject to a high degree of uncertainty. Past performance is not indicative of future results.

Central bank policy rate increases continued in Q2

With the notable exceptions of China – where rates were cut – and Japan – where they are flat



Notes 1. Effective Fed Funds rate shown rather than target range. 2. ECB main refinancing rate shown. 3. Negative interest rates in Japan apply to marginal increases to reserves. Japan cash rate / complementary Deposit Facility. Source: Refinitiv, central bank websites, LaSalle. Data through 30 June 2023.

Q2 2023 quotes

"The fog around the world economic outlook has thickened"

– IMF World Economic Outlook, 11 April 2023

Instability in Russia: "I'm asking everyone to remain calm, do not succumb to provocations, and remain in their houses. Ideally, those along our way, do not go outside. After we have finished what we started, we will return to the front line." - Wagner mercenary leader, Yevgeny Prigozhin during a major but short-lived insurrection in Russia, 23 June 2023

On AI: "This is just different than anything else. Society is going to fundamentally change."

- OpenAl CEO, Sam Altman, 21 June 2023

Central bankers speak

ECB: "Under these conditions, it is unlikely that in the near future the central bank will be able to state with full confidence that peak rates have been reached."

- Christine LaGarde, European Central Bank President, 27 June 2023

BoE: "We're not expecting, we're not desiring a recession, but we will do what is necessary to bring inflation down to target."

– Andrew Bailey, Bank of England Governor, 22 June 2023

Fed: "I think that the skip—I shouldn't call it a skip—the, the decision makes sense"

-Fed Chair Jerome Powell corrects his slip at post-Fed decision press conference, 14 June 2023

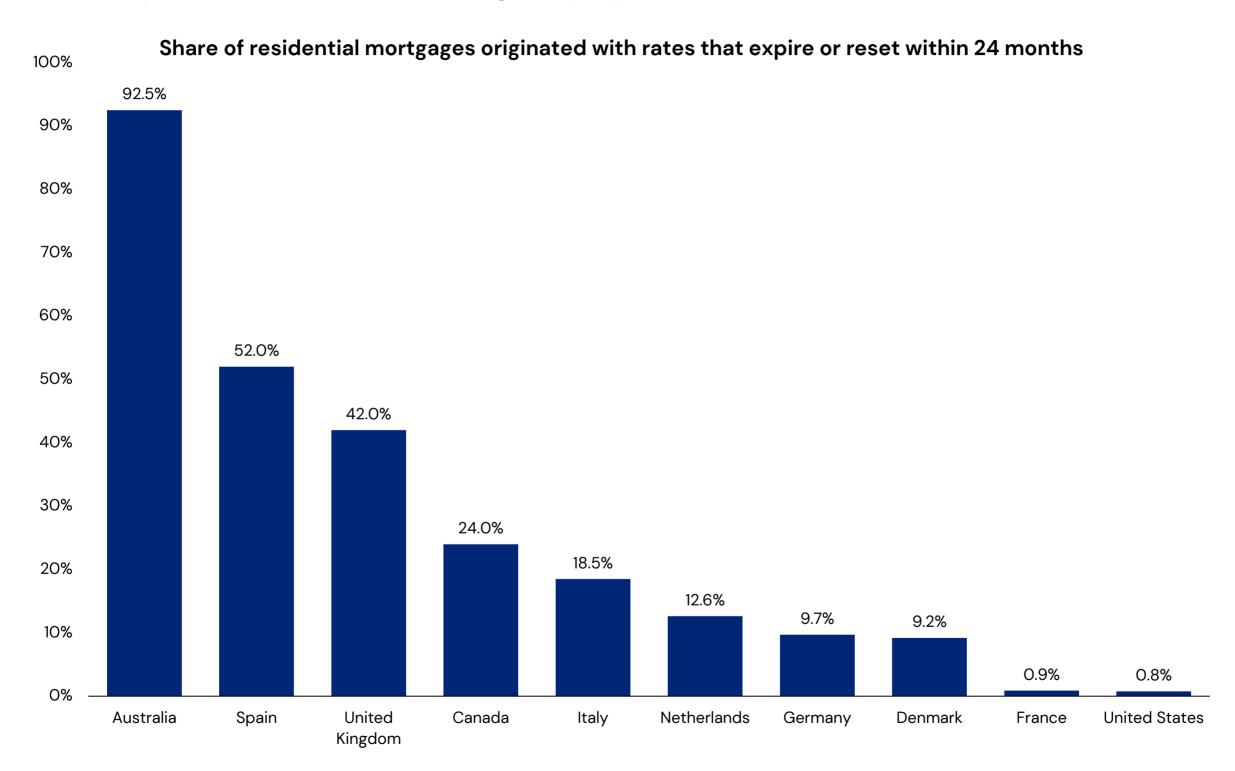
Chinese President Xi: "We will continue to vigorously promote high-level opening up and better protect the rights and interests of foreign investors per the law."

-Xi Jinping at a meeting with New Zealand's Prime Minister in Beijing, 27 June 2023.

These quotes do not reflect the views of LaSalle Investment Management: The opinions expressed in these quotes are those of the speaker. They do not purport to reflect the opinions or views of LaSalle Investment Management.

Exposure to mortgage rate resets vary widely

Australia, Spain, UK, and Canada have highest proportion of loans with near-term resets

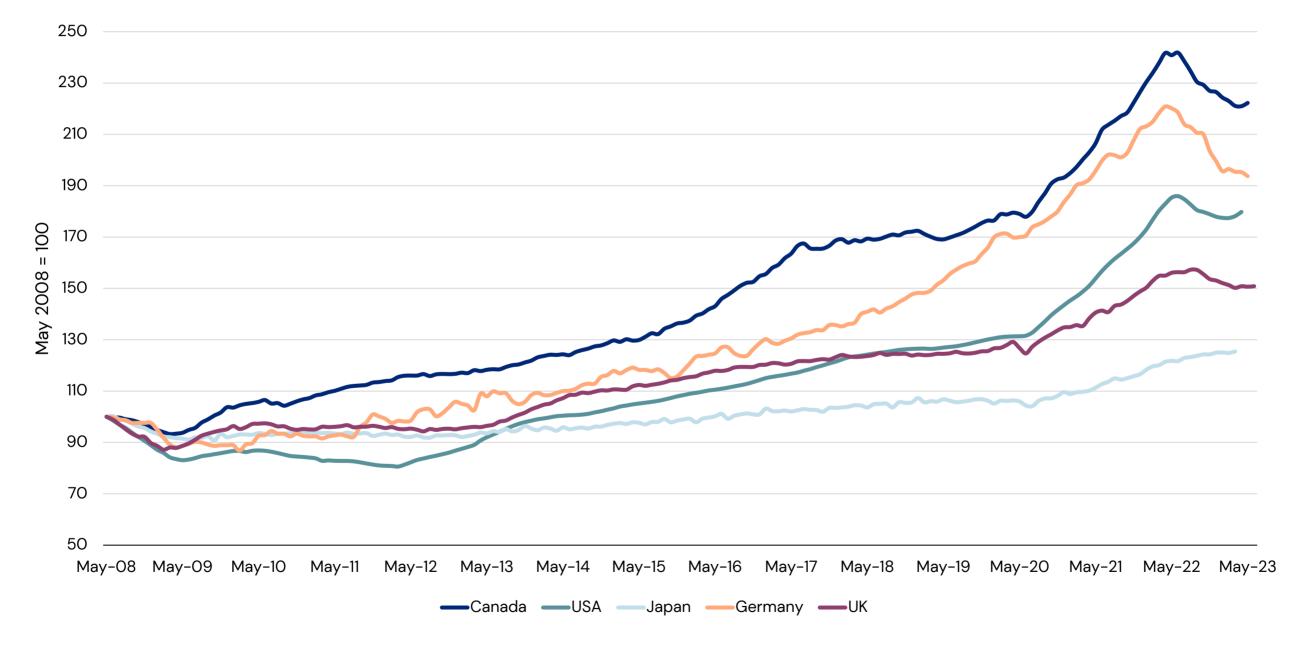


Expressed as % of 2020 loan originations. Analysis as of December 2022. No assurances are given that these trends will continue or materialize as expected. Nothing herein constitutes a guarantee or prediction of future events or results and accordingly the information is subject to a high degree of uncertainty. . Source: Fitch Ratings

Higher rates driving softening in house prices

Canadian house prices down -8% y/y from peak, but tentative signs of improvement

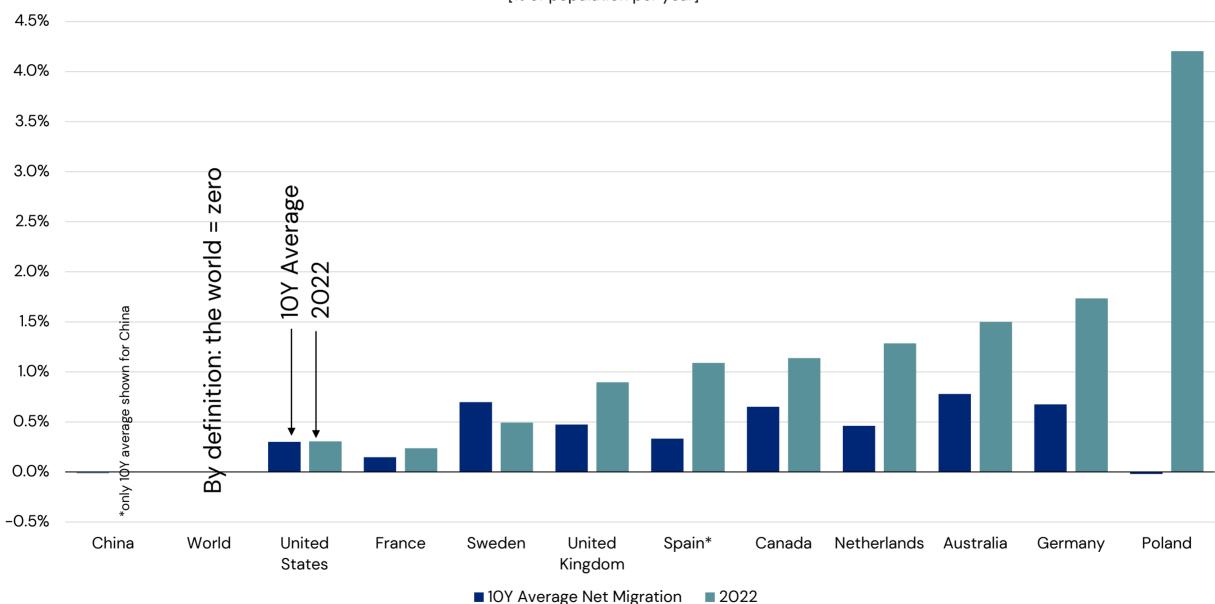
A global comparison of house price trends



Source:Teranet/National Bank of Canada (Canada), Case Shiller 20 City Composite (US), Ministry of Land, Infrastructure, Transport and Tourism (Japan), Europace AG (Germany), and Nationwide Building Society (UK). Latest data available as of June 2023.

Strong net migration in W. Europe, Canada, and Australia

Due to mix of extraordinary temporary factors, like the Ukraine war, as well as structural factors



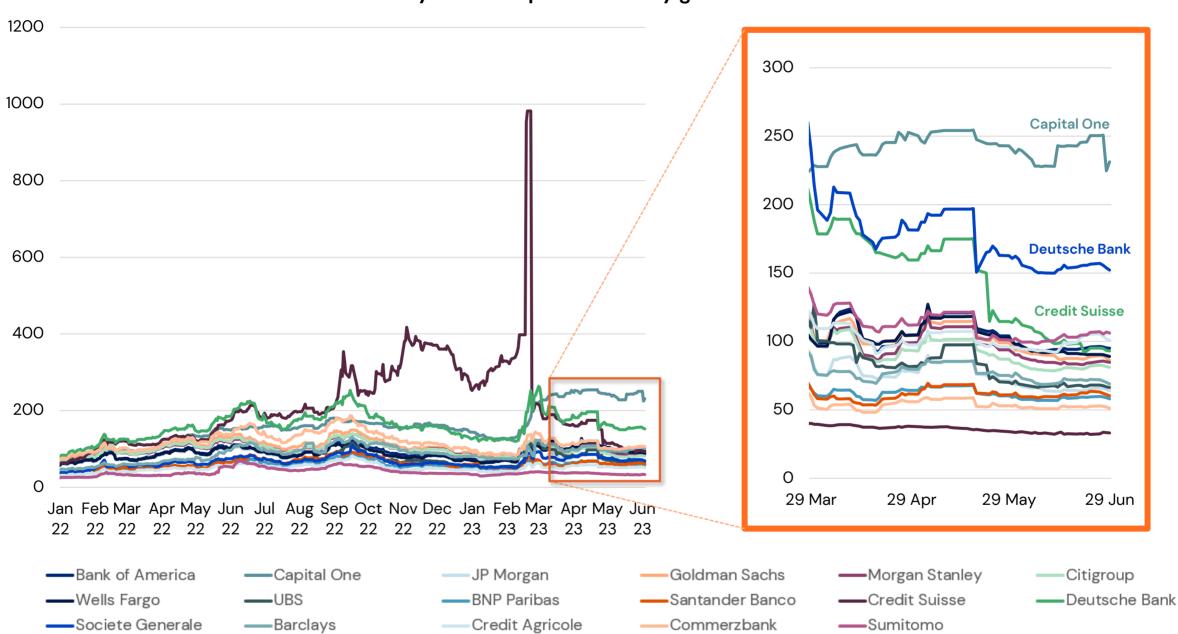
Net migration in 2022 vs. 10Y Average

[% of population per year]

Source: LaSalle analysis of World Bank and national statistics agency reports on migration. Poland figure is based on Ukrainian migration only. *Spain has data through 1H 2022 so this is shown annualized for 2022.

Bank CDS spreads trend lower since April

Fallout from SVB and Credit Suisse collapse was contained through major policy interventions



5-year CDS spreads on key global banks

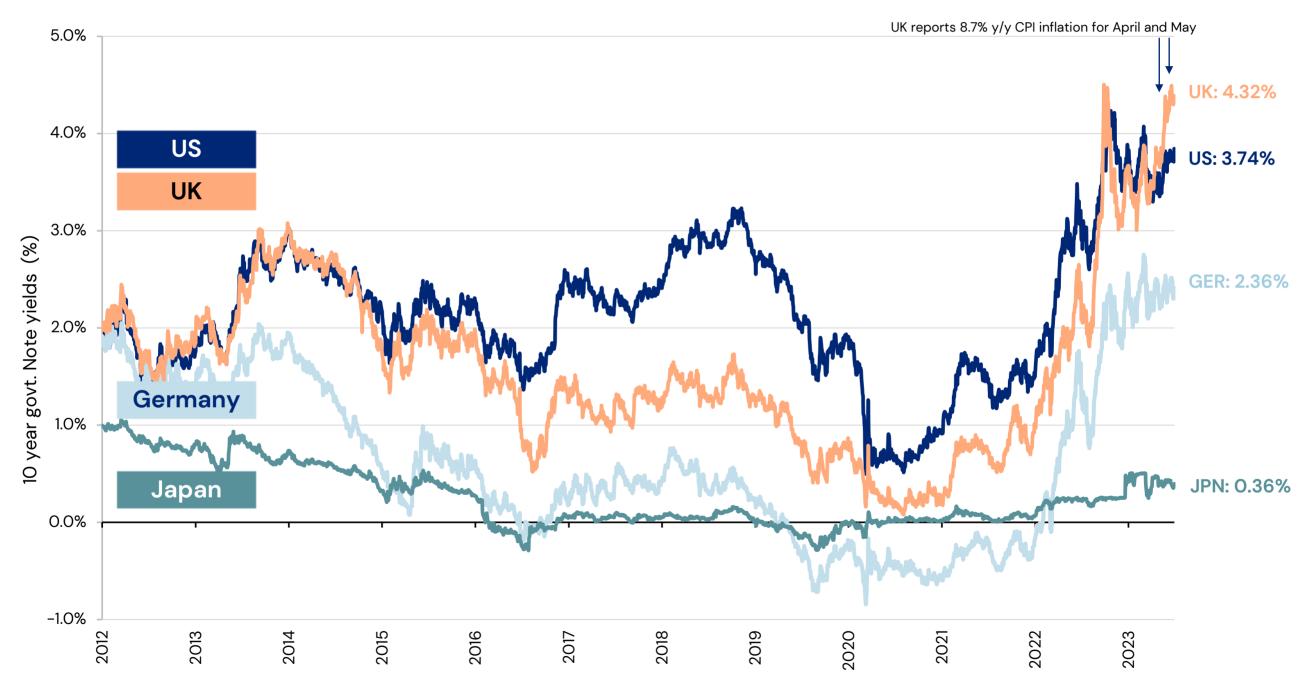
CDS spreads can be a relevant signal, but with some additional caveats relative to the past, such as during the Global Financial Crisis (GFC). Bloomberg reports that trading activity in CDS was greater in 2008-09. They report that a small amount of trading activity had an outsized impact on moving Deutsche Bank's CDS.

Source: Bloomberg, Refinitiv. As of 29 June 2023.

UK bond yields higher after high inflation readings

US and German 10Y rates up by less: 33 and 8bps, respectively, in Q2

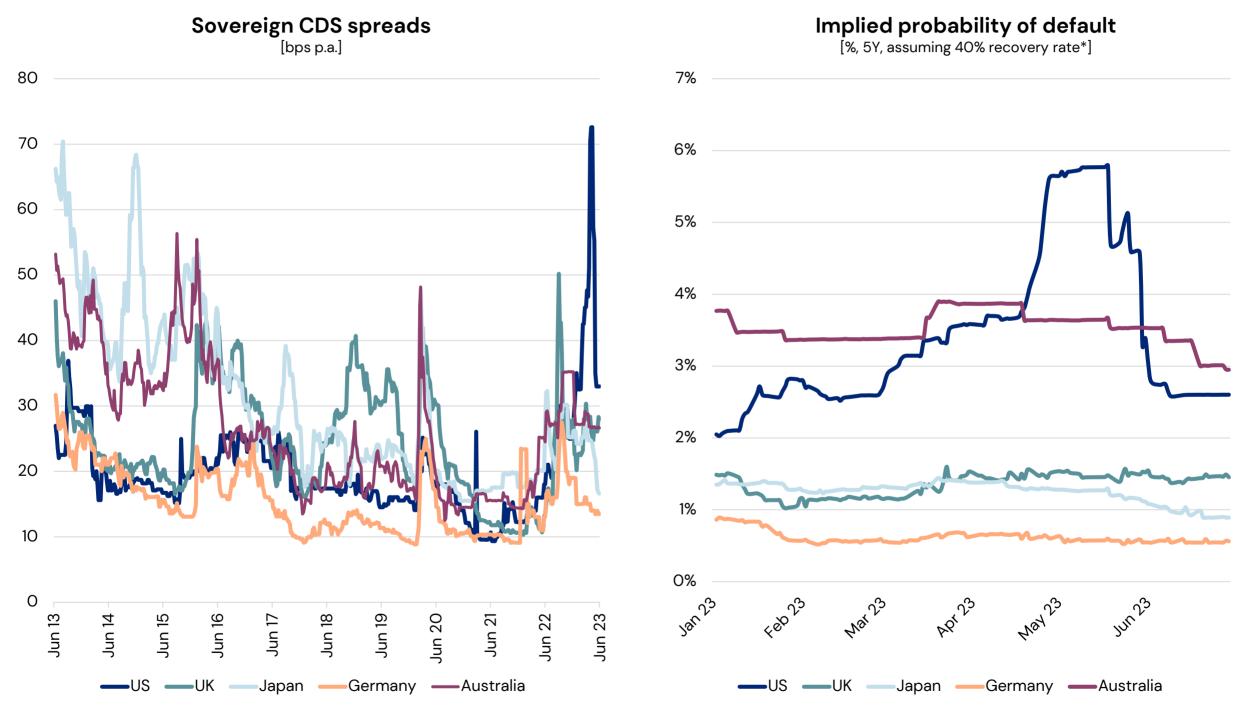




Source: Refinitiv. Data through 30 June 2023.

US CDS spreads fall after debt ceiling resolution

Despite sharp increase in spreads, implied probability of US default remained fairly low throughout

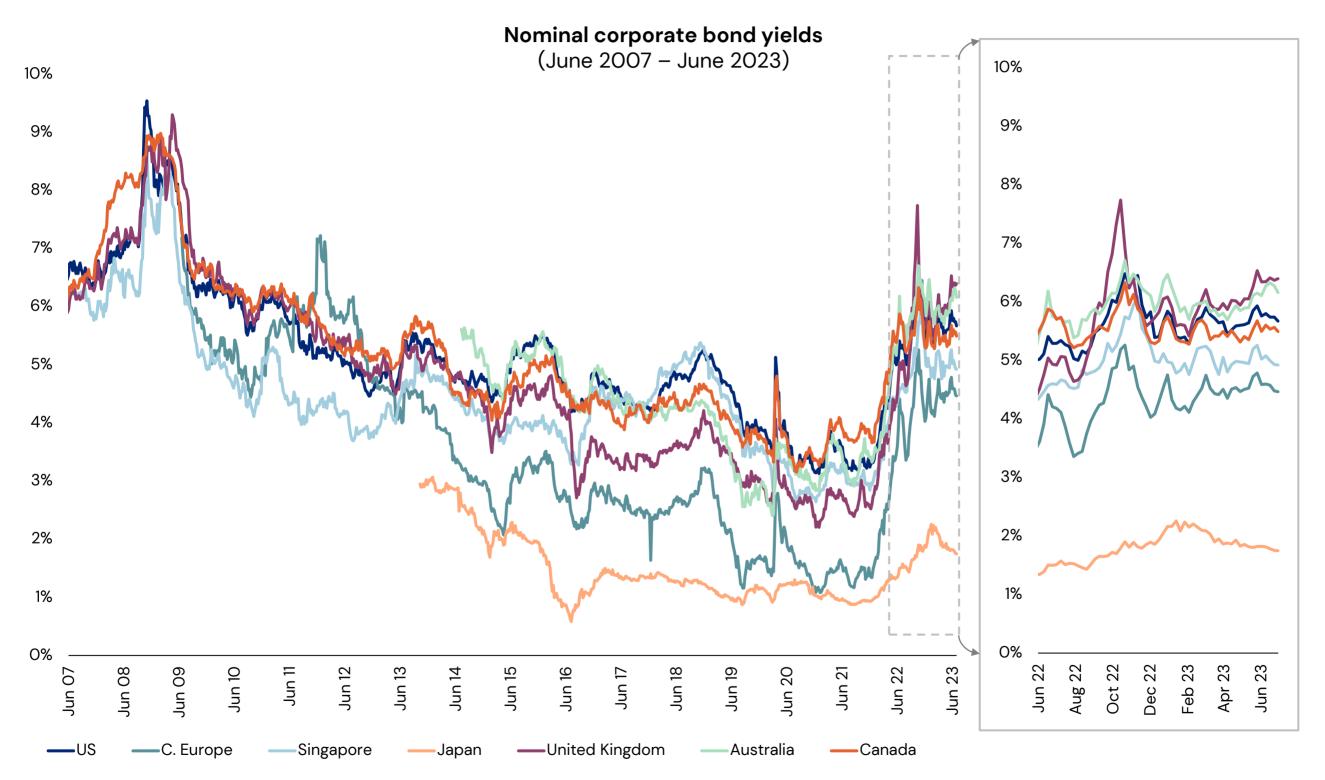


*40% is the market convention assumption for this type of analysis. A higher recovery ratio would lead to higher implied probabilities of default.

Source: Bloomberg, Refinitiv, LaSalle Global Solutions Portwatch, LaSalle calculations as at 30 June 2023.

Corporate bond yields up y/y, stable in quarter

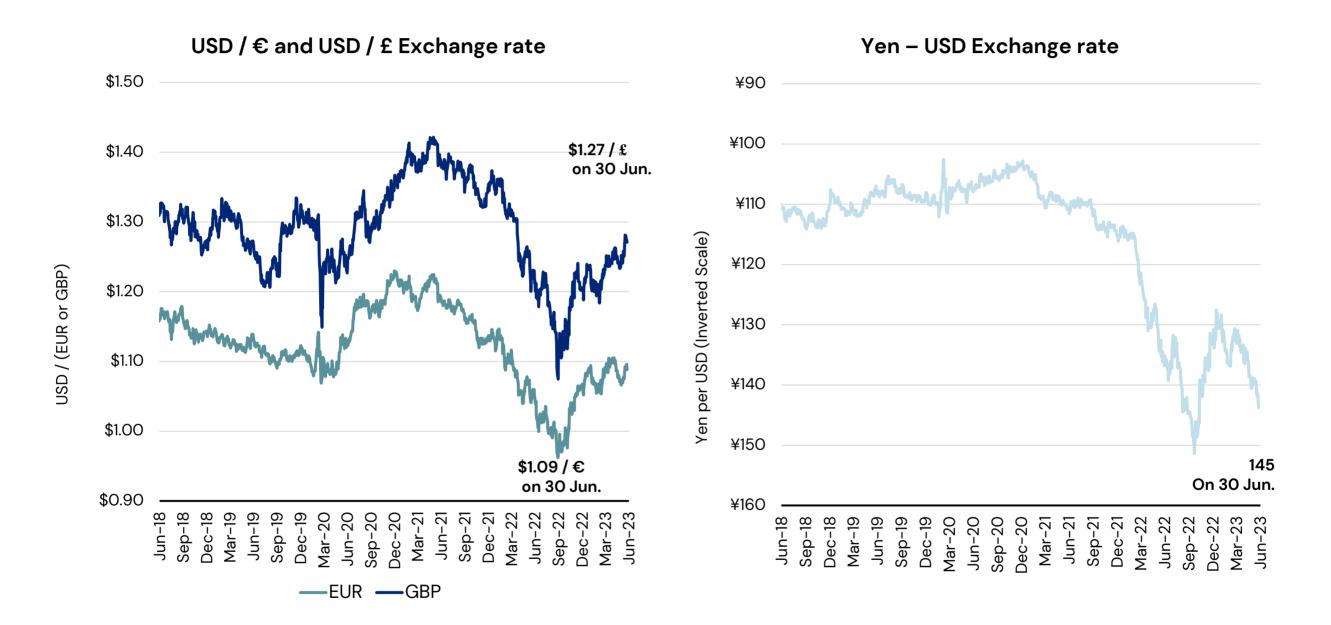
UK corporate bond yields are now the highest among the major markets shown below



Source: Bloomberg. Data through 29 June 2023

The Yen weakened 8% vs. USD in Q2

Sterling strengthened and Euro stable vs. USD last quarter

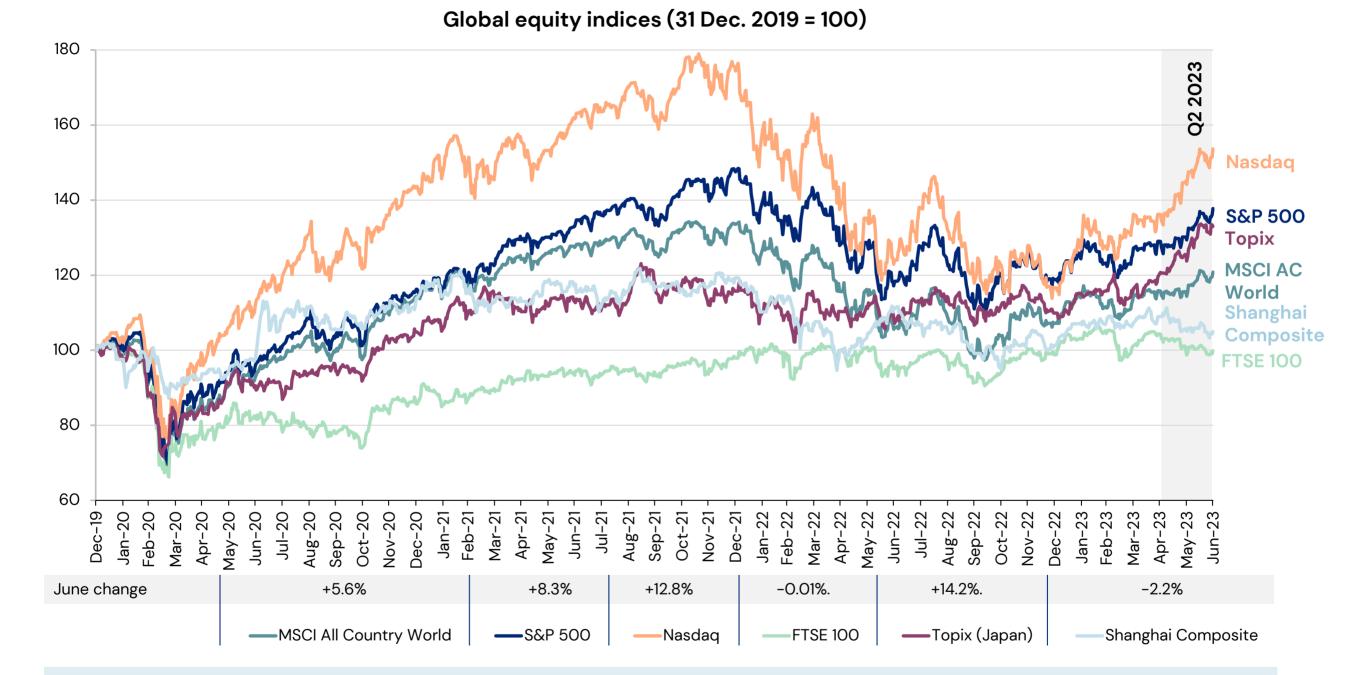


A widening interest rate differential between Japan and the US had led JPY to depreciate and Japan's government and the Bank of Japan released a statement of concern, suggesting possible intervention to support the currency. A weaker yen increases the prices of imports, a potential inflation driver.

Source: Refinitv. Latest data available as of 30 June 2023.

Global equity indices up 5.6% in Q2

S&P, Nasdaq, and Topix up, while FTSE 100 and Shanghai composite down q/q

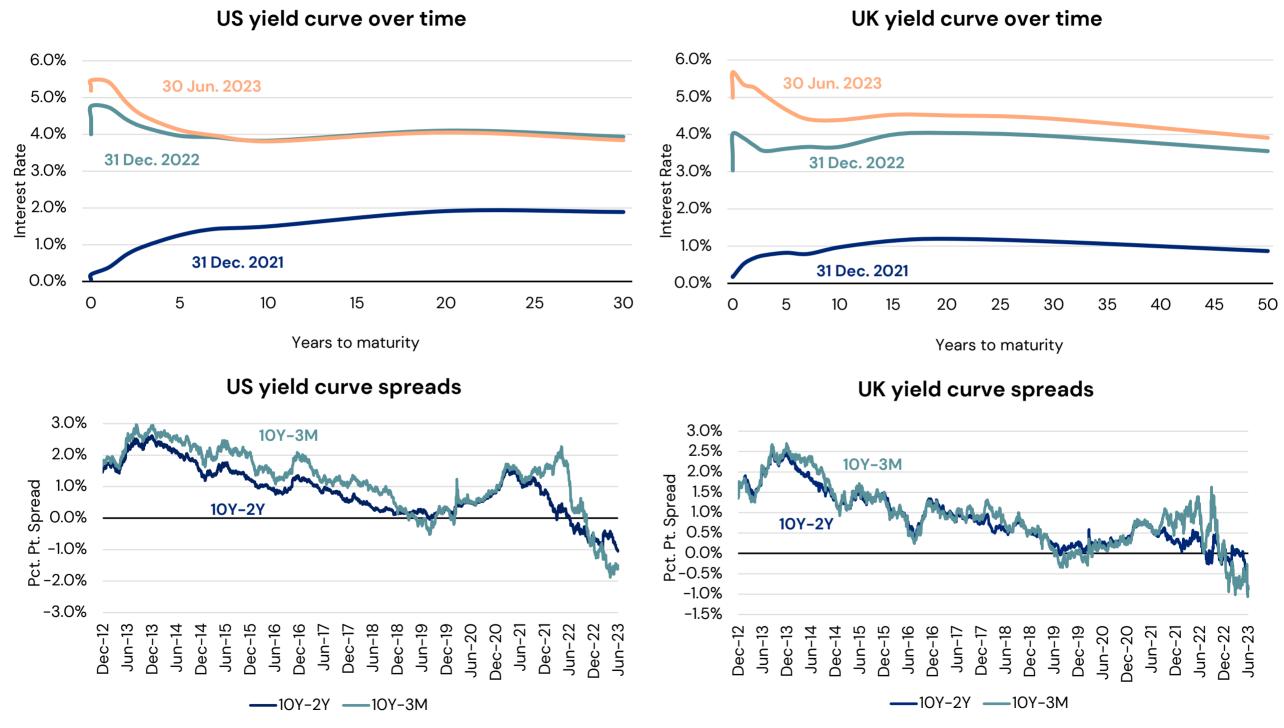


Global equities rallied through Q2 2023, lifted in particular by a handful of large technology companies. The "magnificent seven" of Nvidia, Apple, Tesla, Microsoft, Amazon, Alphabet, and Meta have all seen double digit share price increases year-to-date.

Source: Refinity. Data through 30 June 2023.

Yield curves remain inverted in US, UK

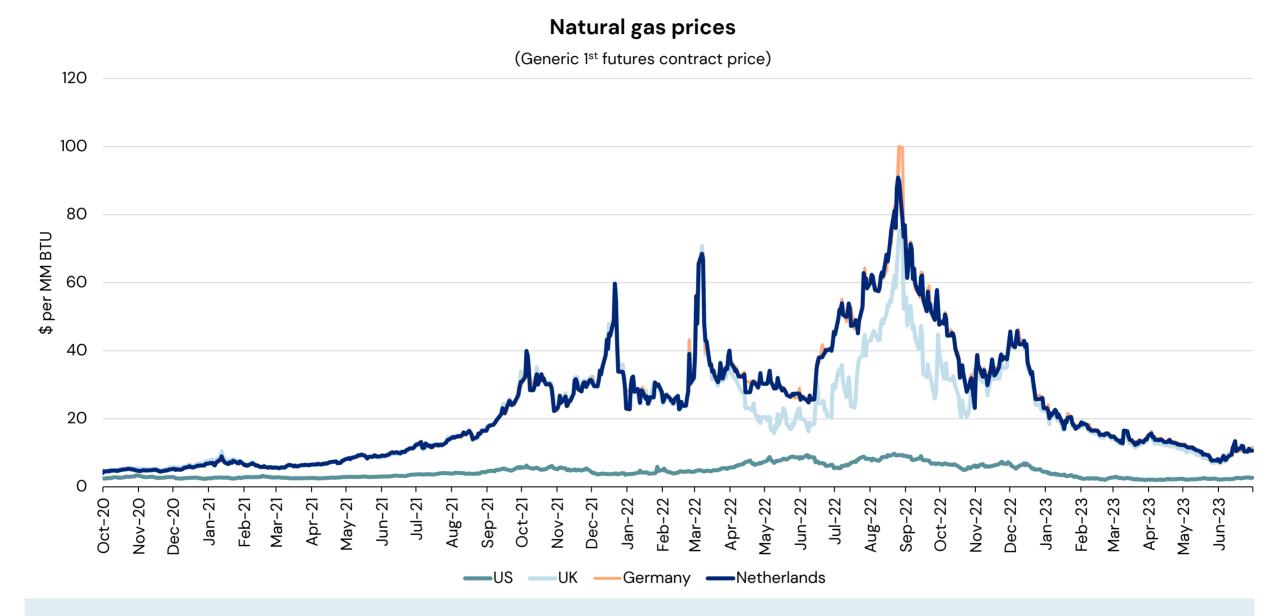
US and UK yield curves shifted higher in June, especially in UK



Source: LaSalle analysis of Refinitiv data. Data through 30 June 2023.

Natural gas prices rose in June but far from peaks

Norwegian maintenance and higher electricity consumption amid hot weather likely drivers

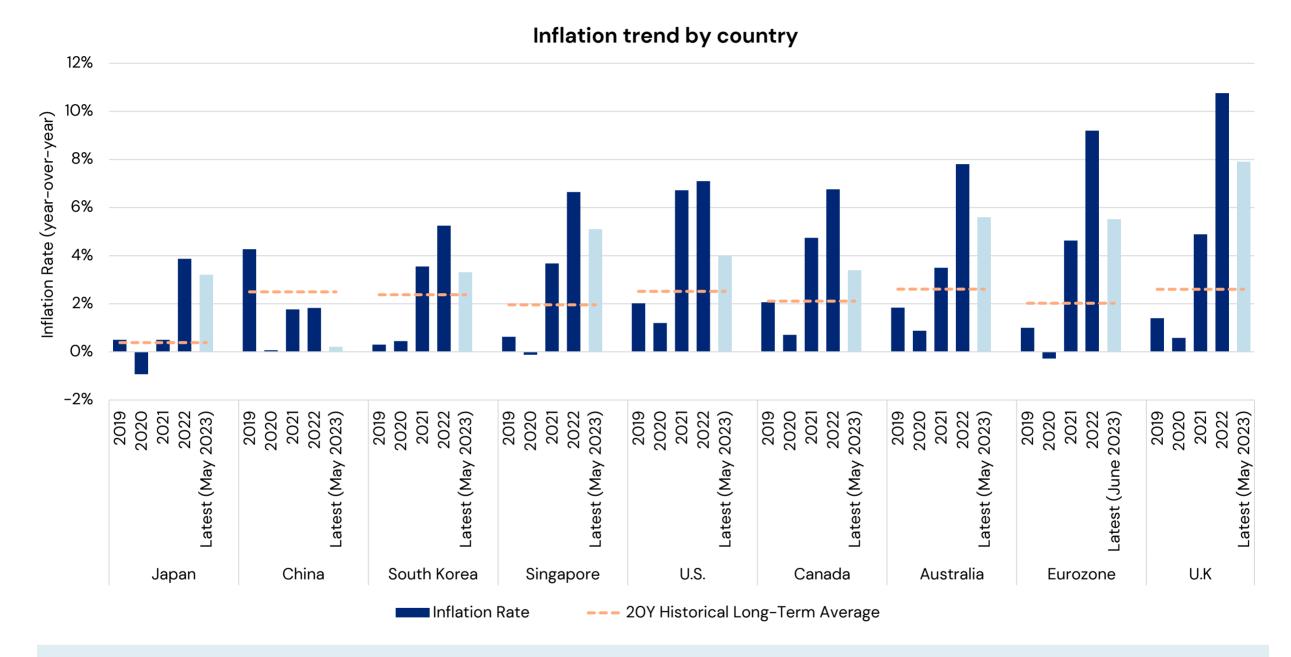


EU gas storage is currently filled up to 77% of the capacity, 28% higher than the ten-year average for this time of the year. The European Union targets to have storage levels at 90% by 1st of November, although filling up the storage has slowed down as short-term demands have started to pick up.

Source: LaSalle analysis of New York Mercantile Exchange and Intercontinental Exchange data via Refinitv. Gas storage data via GIE. As of 30 June 2023. Note: No assurances are given that these trends will continue or materialize as expected. Nothing herein constitutes a guarantee or prediction of future events or results and accordingly the information is subject to a high degree of uncertainty. Past performance is not indicative of future results.

Inflation cools, especially in US, Canada, Eurozone

UK stands out for especially sticky inflation



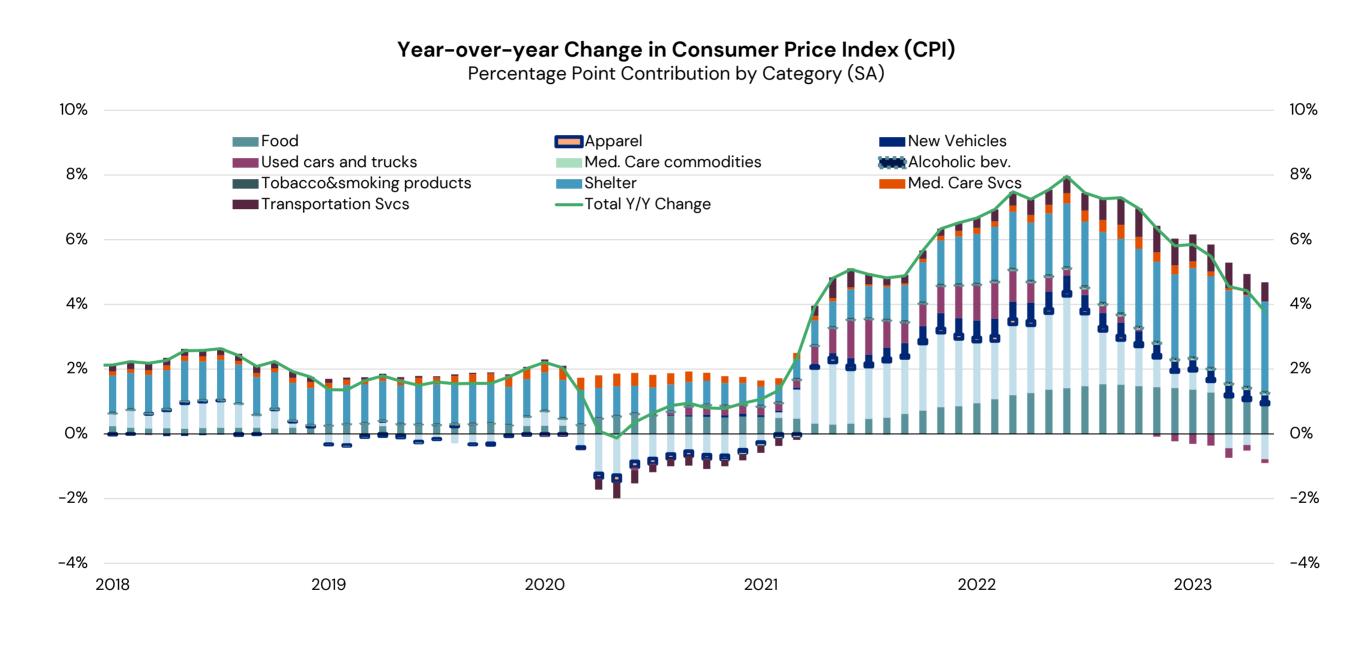
Year-over-year inflation remains above its 20-year average in major markets, bar China. UK inflation (including all housing costs) rose 7.9% Y/Y in May 2023, down from 10.75% in Q4 2022 but up from 7.8% in April. The Eurozone reported preliminary Y/Y June inflation of 5.5%, easing from its Q4 2022 reading of 9.2% Y/Y.

Note: 20-year historical long term average inflation rate is the average quarterly inflation rate from Q2 2003 to Q1 2023.

Source: Oxford Economics; latest monthly data from Australia Bureau of Statistics (Australia), Eurostat (Eurozone), Singapore Department of Statistics (Singapore), Statistical Bureau (Japan), Statistics Korea (South Korea), National Bureau of Statistics (China), Statistics Canada (Canada), Office for National Statistics (UK), US Bureau of Labor Statistics (US). Latest data available as of 6 June 2023.

US inflation components show reasons for change

Shelter is the largest contributor to the headline CPI change; energy now a negative contributor



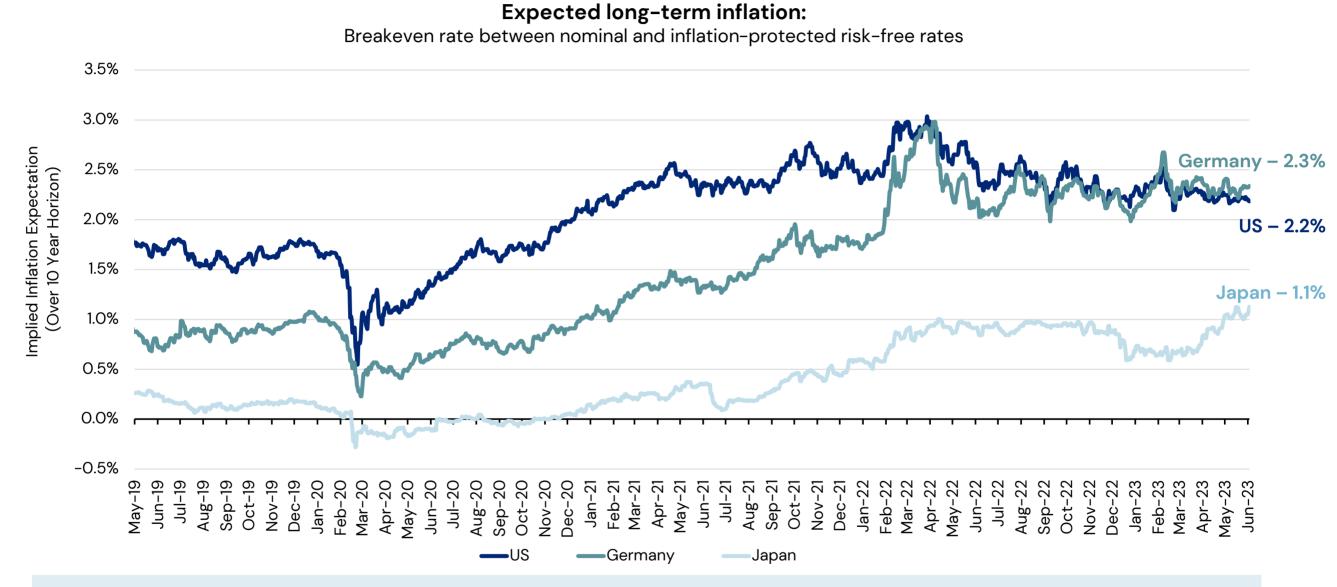
The US CPI in May rose +4.0% y/y, again slowing from its recent record growth pace.

Source: Economy.com. Historical data through May 2023.

Note: Past performance is not indicative of future results. There is no guarantee that any trends shown herein will continue or that any forecasts shown herein will materialize as expected.

Breakeven US 10Y inflation outlook remains under 2.5%

In the US, Germany, and Japan inflation-protected yields anticipating a dramatic deceleration



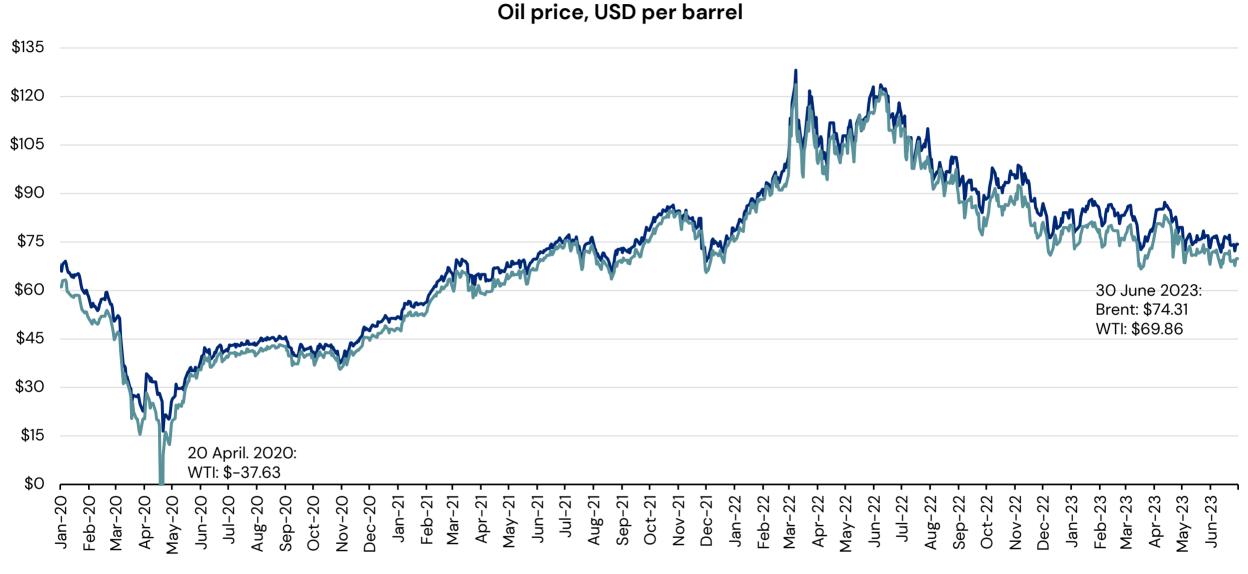
Breakeven inflation rates rose from pandemic lows to about 3% at the end of April 2022. Since then – coinciding with more aggressive central bank action and slowing growth signals – long term inflation expectations have moved slightly lower.

Japan 10Y breakeven exceeds 1% at the end of May 2023, the highest rate recorded in the last five years.

Source: Bloomberg. As of 27 June 2023.

Brent crude oil price declined -7% in Q2

OPEC has attempted to cut production



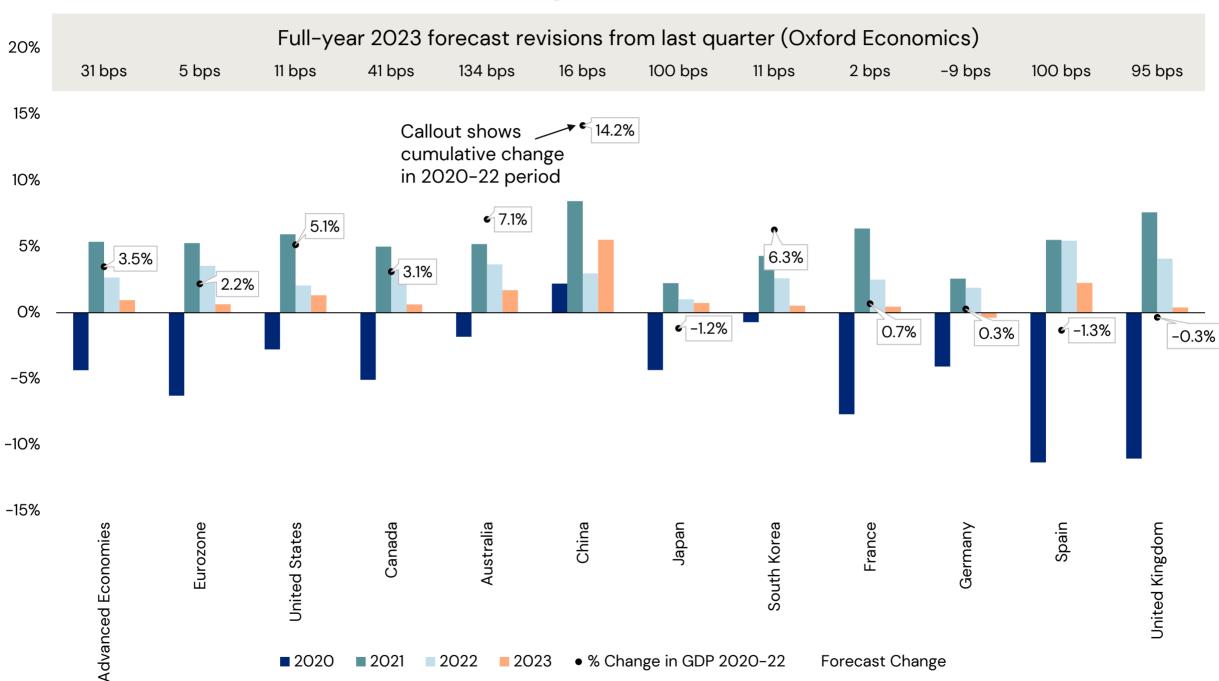
Brent —West Texas Intermediate (WTI)

The latest OPEC meeting which took place on the 4th of June 2023 have decided to extend the current production cuts of 3.66 million bpd (amounting to 3.6% of global demand) until the end of 2024, after deepening production cuts at the last April meeting by 1.66 million bpd on top of 2 million bpd as agreed at the October meeting. Saudi Arabia, the world's largest oil producer and the most powerful member of the OPEC+ have voluntarily reduced its production by 1 million bpd in July, to 9 million bpd for at least until the end of August.

Source: AAA, New York Mercantile Exchange and Intercontinental Exchange data via Refinitiv. As of 30 March 2023.

2023 economic outlook subdued

Growth has held up better than expected YTD, but with expected weakness to persist in next year

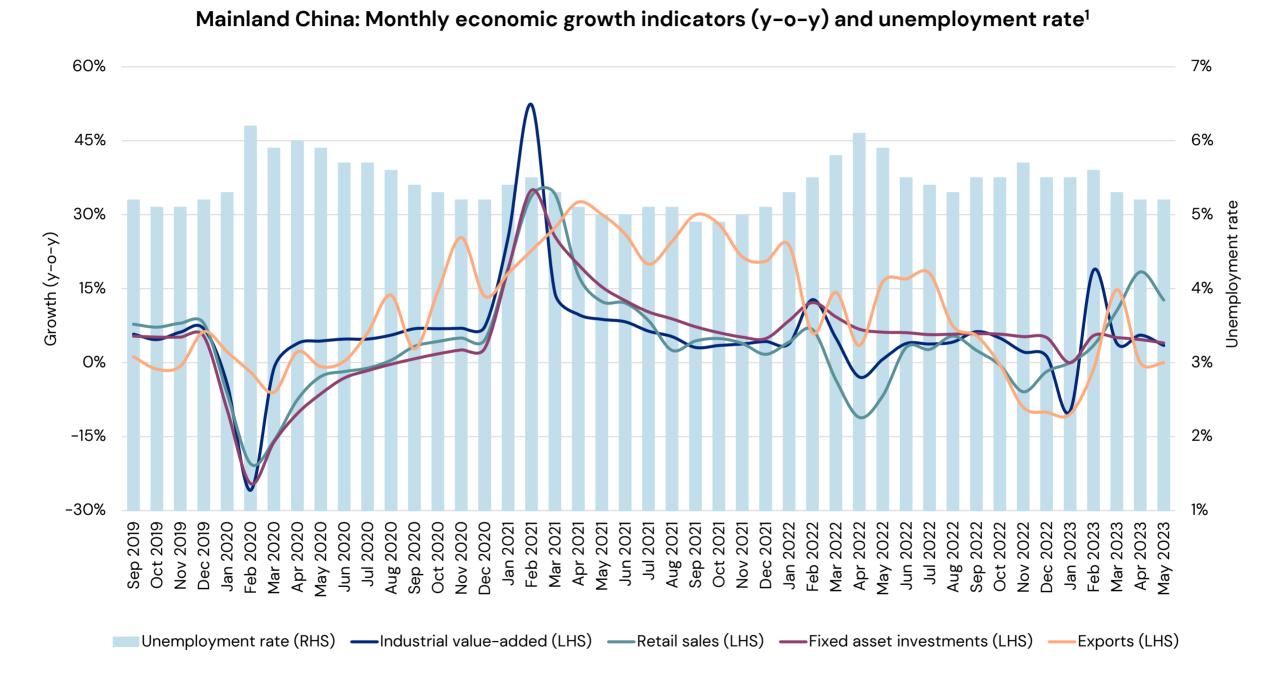


Oxford Economics global annual GDP forecasts

*Aggregation based on Oxford Economics country classification: <u>https://services.oxfordeconomics.com/api/definitions/WDMacro/GlobalMacroEconomicDatabank.pdf</u> Source: Oxford Economics Forecast most recent as of 30 June 20223

The economic rebound in China has been mild

Current rebound is less than the early 2021 recovery



Note: Since 2016, the National Bureau of Statistics of China only report a combined January and February data instead of individual data points for fixed asset investment and retail sales. For the two indicators, the monthly data of February is the combined data while the monthly data of January is the average of the data of December in last year and February in this year. The fixed asset investment growth is based on year-on-year growth rate of the year-to-date data.

Source: The National Bureau of Statistics of China (industrial value-added, retail sales, fixed asset investment, unemployment rate) and General Administration of Customs of China (exports) via WIND, as of May 2023

No assurances are given that these trends will continue or materialize as expected. Nothing herein constitutes a guarantee or prediction of future events or results and accordingly the information is subject to a high degree of uncertainty.

Wheat prices declined 14% in first half of 2023

Metal prices down approximately 8% from YE 2022

Wheat futures London metals exchange price index Based on prices of copper, aluminium, tin, zinc, lead, and nickel Next month contract, Chicago Board of Trade 1,600 6,000 \$1.425 on 7 March 5,500 1,400 5,000 Wheat, active futures contract, \$ per bushel 1,200 4,500 1,000 4,000 Index value 800 3,500 3,681 On 27 June 3,000 600 \$685 On 2,500 27 June 400 2,000 200 1,500 0 1,000 Jun-19 Jun-20 Jun-21 Jun-22 Jun-23 Jun-18 Jun-19 Jun-20 Jun-23 Jun-18 Jun-22 Jun-21

Source: Bloomberg. Wheat price as of 27 June 2023. London Metals Index as of 27 June 2023. Latest data available as of 27 June 2023.

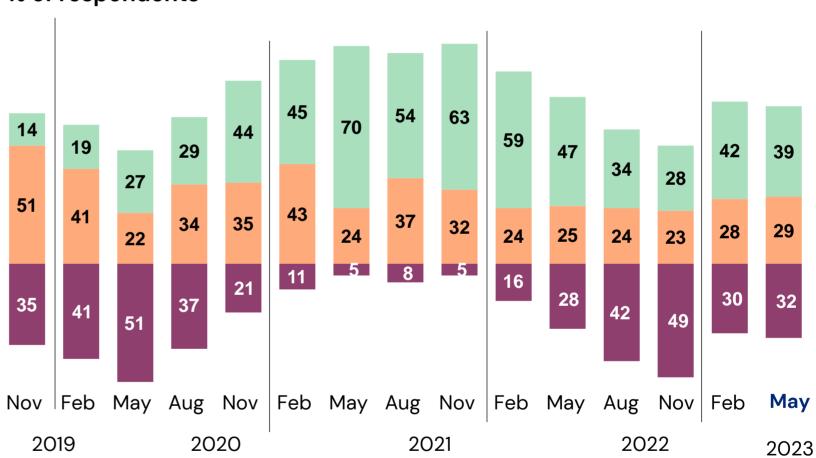
Global real estate sentiment index moved sideways during Q2

Continued uncertainty and elevated borrowing costs are impacting investor sentiment

<u>Global real estate</u> <u>sentiment</u>

Over the next six months, do you think market conditions will:



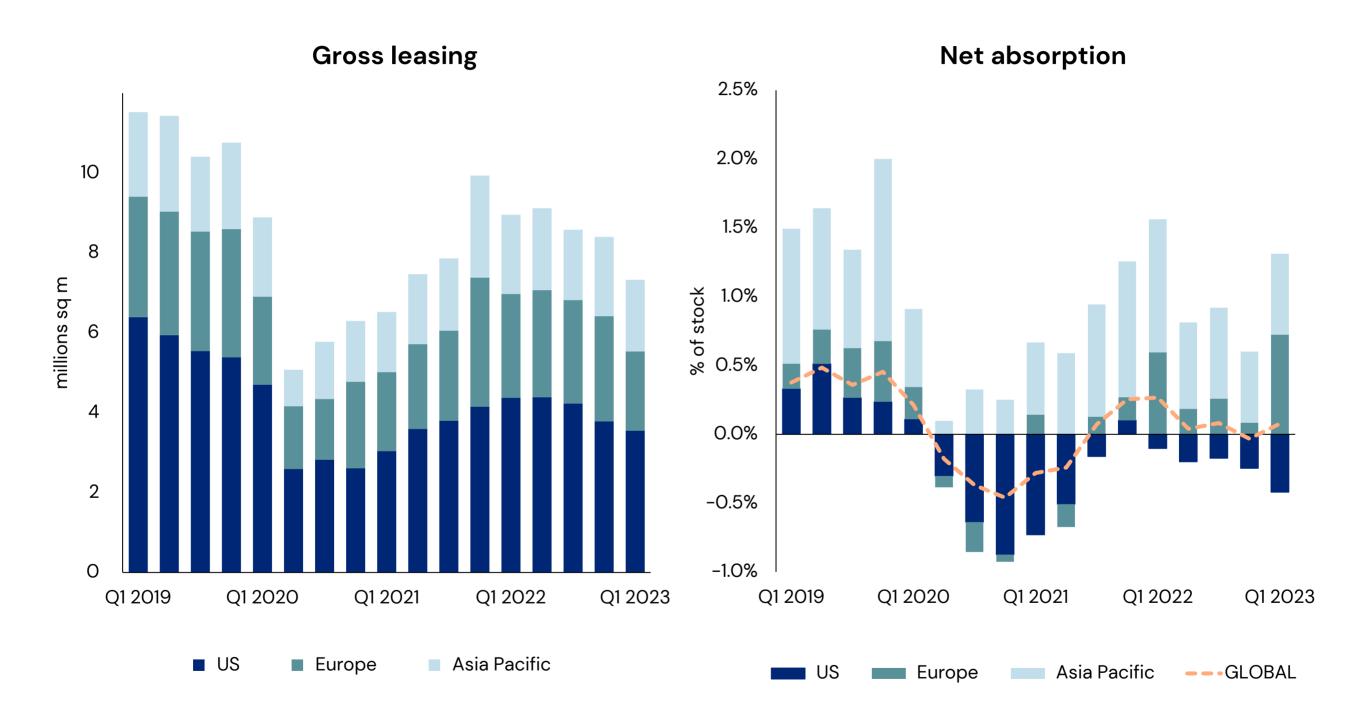


% of respondents

Source: JLL Research, Latest May 2023.

Subdued gross office demand in US

Net absorption by occupiers still positive in Europe and Asia-Pacific



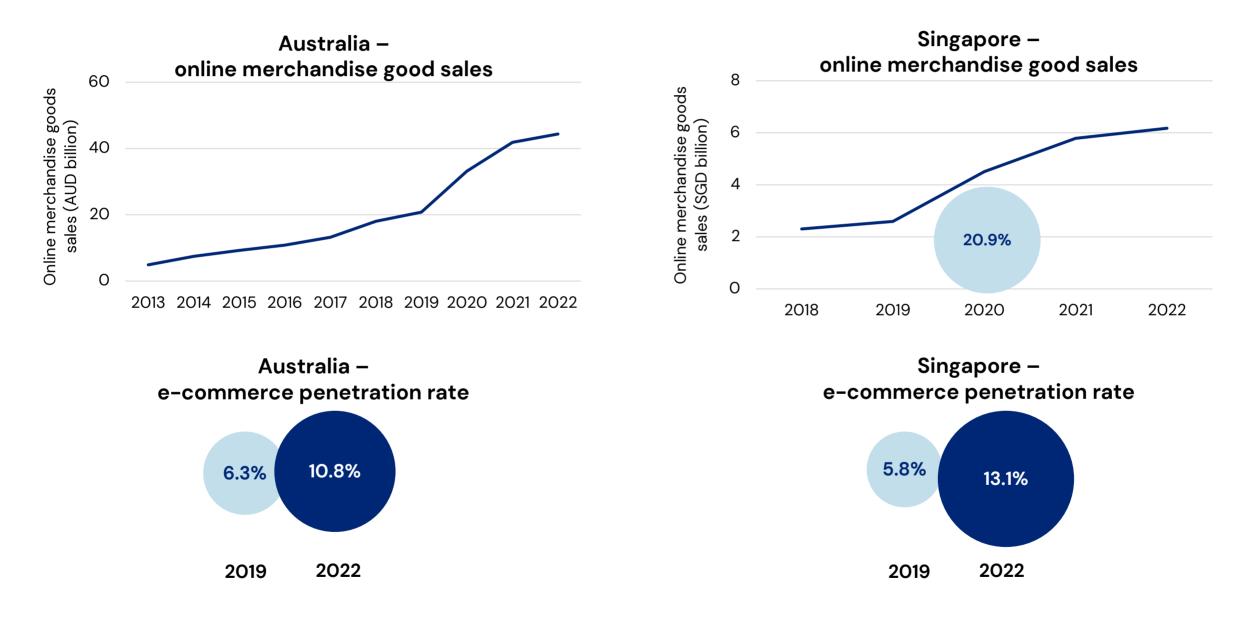
23 markets in Europe; 50 markets in the US; 22 markets in Asia Pacific.

Source: JLL Research, Data to Q1 2023.

Asia-Pacific e-commerce growth continues

Driving tenant demand for logistics

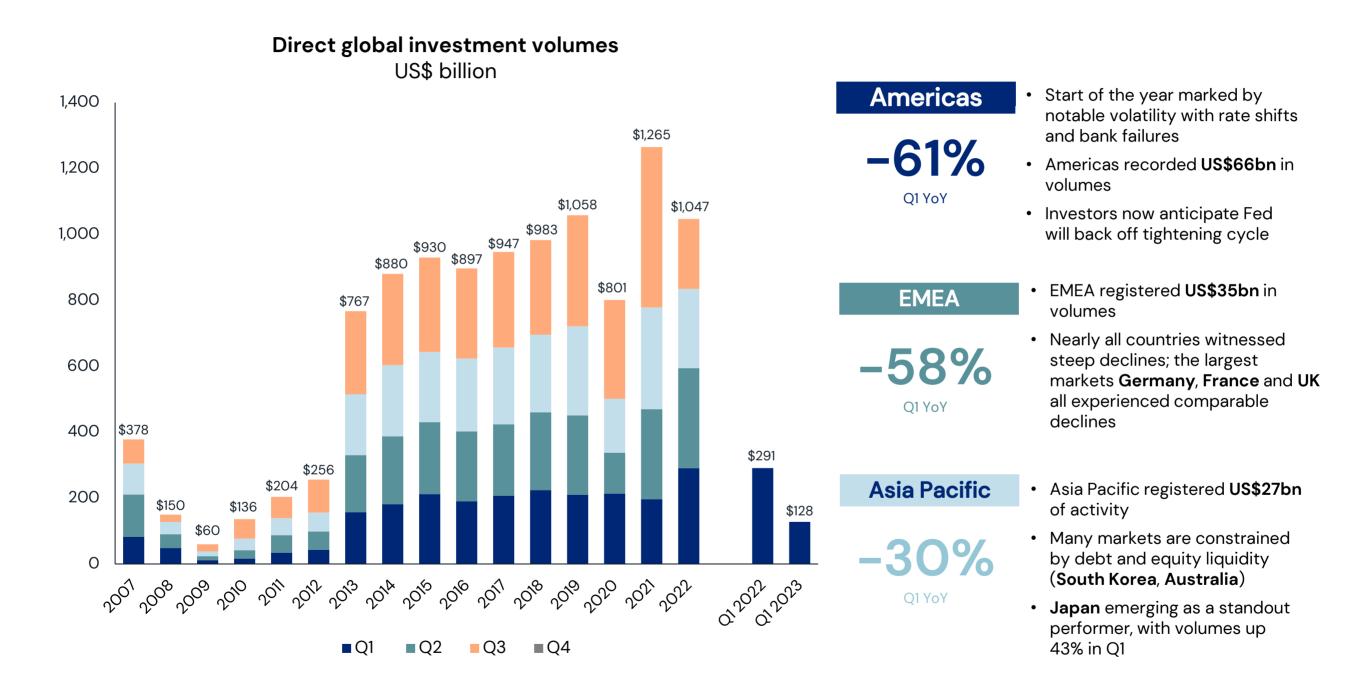
Online merchandise goods sales and penetration rate in Australia and Singapore



Source: LaSalle analysis of data from the Australia Bureau of Statistics, the National Bureau of Statistics, as of 2022. Latest data as of 28 June 2023

Real estate transaction volume down

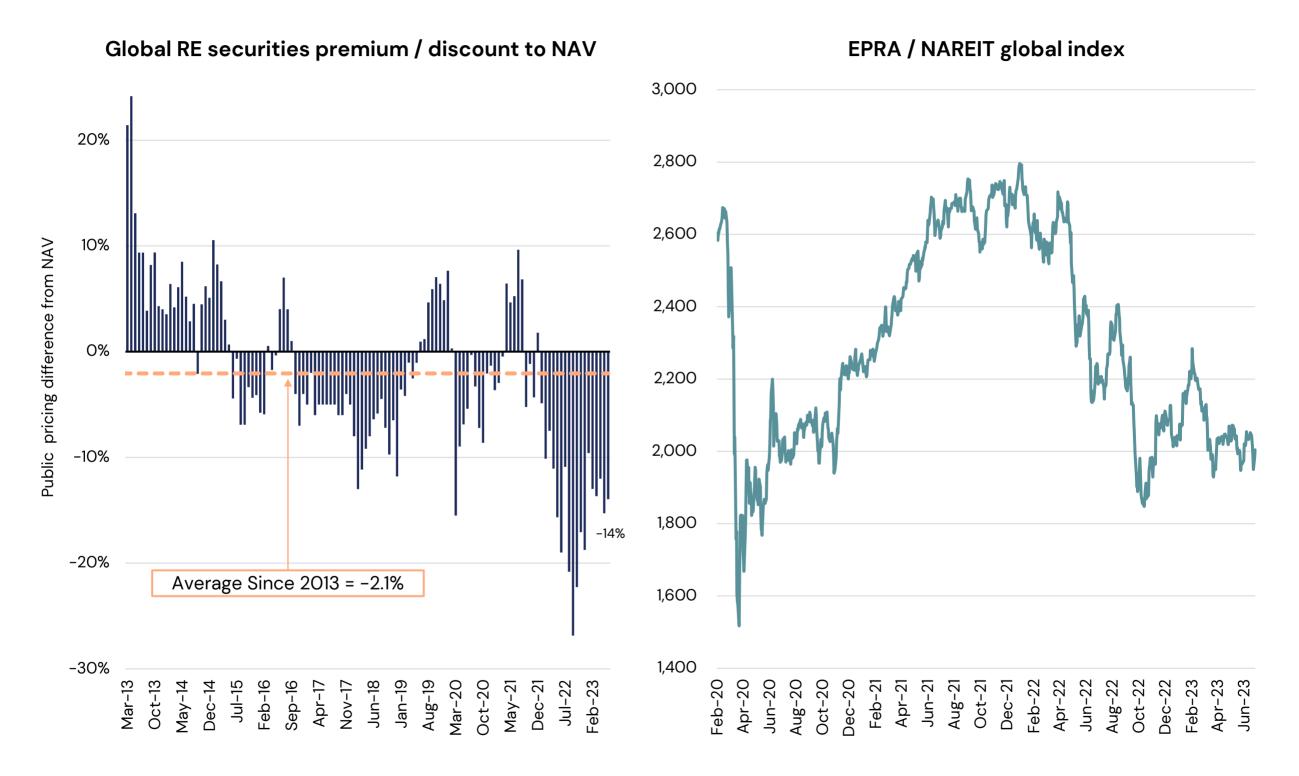
Global direct real estate investment volume fell by 56% year-over-year in Q1 2023



Source: JLL Research, Latest April 2023.

Global REIT discount to NAV near -14%

Global listed REIT securities down 1.6% YTD



Source: EPRA/NAREIT, LaSalle Investment Management Securities. Discount to NAV data to 29 June 2023. EPRA/NAREIT data to 27 June 2023.

Global macro indicators summary

Latest data as of end of June

| | United States | United Kingdom | Germany | France | Japan | China | Australia | Canada |
|--|------------------|--------------------|--------------------------|-----------|--------------------|--------------------|-----------|-----------|
| Official interest rate (target rate) | 5.0% to 5.25% | 5.0% | 4.0% | 4.0% | -0.1% ¹ | 3.55%² ↓ | 4.1% | 4.75% |
| GDP(Q/Q) annualized | 2.0% (Q1) | 0.4% (Q1) | <mark>-1.3% (</mark> Q1) | 0.8% (Q1) | 2.7% (Q1) | 4.5% (Q1) (Y/Y) | 0.8% (Q1) | 3.1% (Q1) |
| CPI inflation (Y/Y) | 4.0% | 8.7% | 6.4% | 4.5% | 3.2% | 0.2% | 5.6% | 3.4% |
| Industrial production (Y/Y) | 0.2% | -1.9% | 1.8% | 1.2% | 4.7% | 3.5% | 2.7% | 1.1% |
| Unemployment rate | 3.7% | 3.8% | 2.9% | 7.0% | 2.6% | 4.0% | 3.6% | 5.2% |
| Retail sales (Q4 2022 or latest Y/Y change) | 1.6% | -3.0% ³ | -3.6% | -4.2% | 5.7% | 12.7% | 4.2% | 2.9% |
| Stock market price index 2023 YTD (local) | 15.9% | 1.1% | 16.0% | 14.3% | 21.0% | 3.7% | 2.3% | 4.0% |

Note: Changed data from last update is highlighted in bold. ¹Negative interest rates in Japan apply to marginal increases to reserves. Japan cash rate / complementary Deposit Facility. ²One Year Loan Prime Rate. ³Retail sales figure from the UK is as of Q1 2023. Source: Eurostat, The Economist https://www.economist.com/markets-data), Bloomberg. Latest data available as of 30 June 2023.

Recent LaSalle Research & Strategy publications

A global team focused on delivering Insights, Strategy, and Analysis (ISA)





Forthcoming, Mid-year 2023







Energy is back as a key factor in real estate outcomes

We property strategists are accustomed to working with traditional real estate variables such as net absorption, rental growth and vaconey rates. But in the early days of the COVID-19 pandemic, there was no choice but to go on a crash course in previously unfamilier epidemiological concepts like positivity rates. R-naught' and vaccine effectiveness, as these suddenly became drivers of short-term real estate conditions. Over the past year, real estate researchers have likewise had to quickly first time evere, we produced charts denominated in once estoretion units of measurement like therma. MMBTUs and MWhs² Gas, electricity and all prices have long been linked to real estate outcomes—energy crises sparked 1970s inflation and have shaped real estate demand from Alberta to Texas and Socialand.







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Senior Strategist, Asia Pacific

and Strategy

the year. We pointed out that after rate of change has substantially lew US markets, and at somewhat highe Asia-Pacific. In many markets, but especially Nor leasing demand as leases roll An ar

observed in our ISA Outlook 2023,

leasing demand as leases roll. An ar to materialize. At the same time, the macroeconomy. These factors have office values, which have made fron mortgages backed by office assets.

In this context, we thought it imporkey questions, while highlighting diff risks greatest and where are they le portfolio? How will current trends pl

This is also an opportunity to look b where we did not. As a part of this, which we check on our prior predic

More LaSalle Research and Insights at: <u>https://www.lasalle.co</u> <u>m/research-and-</u> insights/

Proprietary Research

<u>Europe market view – Q2</u> 2023

<u>The evolution to net zero</u> <u>carbon real estate</u>

Insights into value add investing in Europe

How to choose, use, and better understand climate-risk analytics – ULI & LaSalle report

<u>US private real estate</u> <u>appreciation moves</u> <u>negative as re-valuation</u> <u>starts</u>

<u>LaSalle European Cities</u> <u>Growth Index</u>

2022 JLL & LaSalle Global Real Estate Transparency Index

Recent JLL Global Insight publications



Global Real Estate

JLL SEE A BRIGHTER WAY

Perspective – Highlights

jll.com

 Cross-border Transaction Activity, Q1 2023, US\$ bn
 Purchaser source of capital
 Asset region

 Condon
 Americas: \$3:0bn
 Americas: \$3:0bn
 Americas: \$3:0bn

 New York
 Paris
 San Francisco
 Americas: \$3:0bn

 Seoul
 Singapore
 Asia Pacific: \$3:abn
 Asia Pacific: \$3:abn

Global Real Estate Perspective, May 2023 (*release date: 4 May 2023*) Full report | Interactive website



The Future of the Central Business District Creating dynamic urban centers

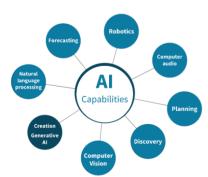
ill.con

MI SEE A BRIGHTER WAY

The Future of the Central Business District

Our latest research examines the challenges Central Business Districts (CBDs) face today and highlights the actions investors, developers and city governments need to take to capitalize on the opportunities and create resilient urban cores that work for all.





Artificial Intelligence: Real Estate Revolution or Evolution?

With recent advancements in AI capabilities and a string of new products like ChatGPT, our latest research examines the potential for these new technologies to transform the real estate industry and identifies areas of opportunity.

37% of AI companies are based in the U.S.





Data Centers 2023 Global Outlook Rapidly expanding data needs accelerate growth and drive investor interest, even as headwinds persist

IL SEE A BRIGHTER WAY

<u>Global Data Center Outlook</u> 2023

The 2023 Global Data Center Outlook covers the challenges, opportunities and demand drivers for the industry; it highlights the investor impact and profiles primary and secondary markets.

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