



Macquarie Asset Management

Global Real Estate Outlook

September 2023



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Macro Environment and Outlook



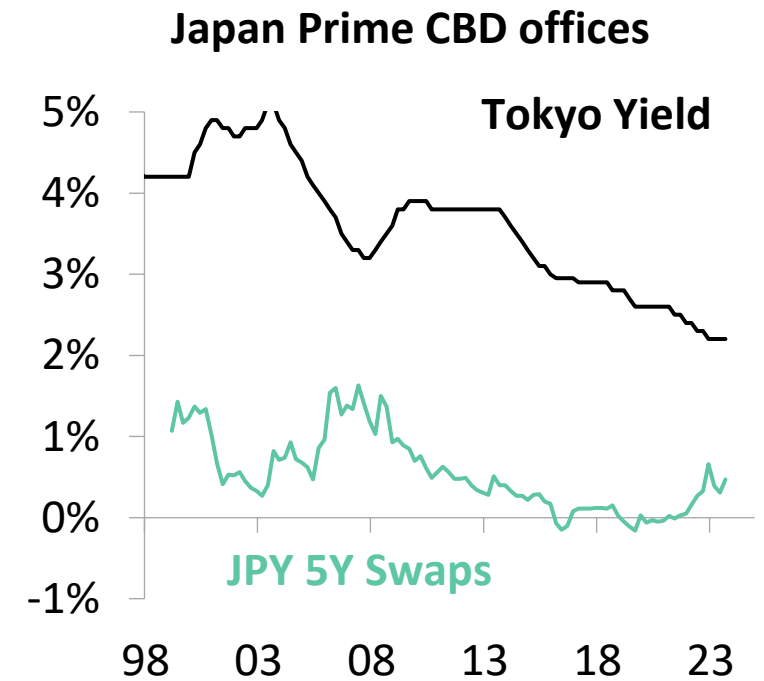
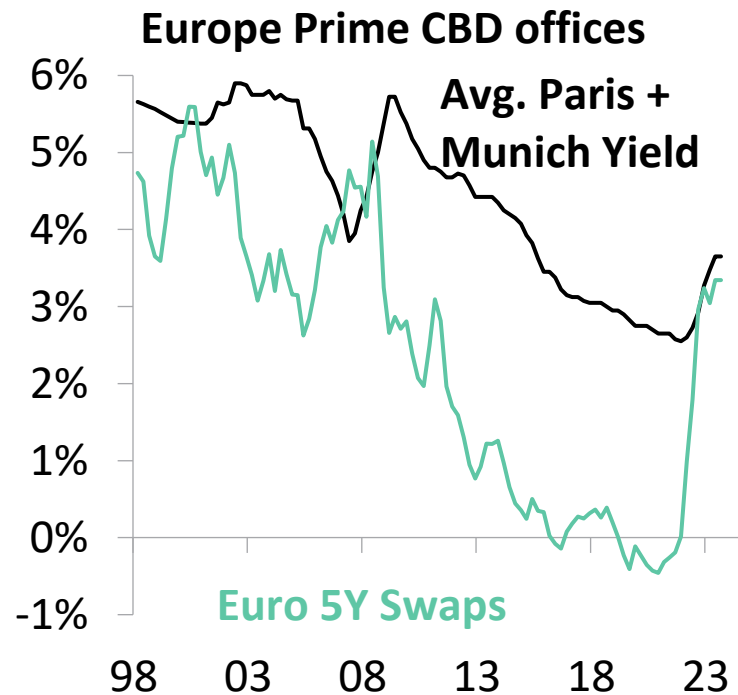
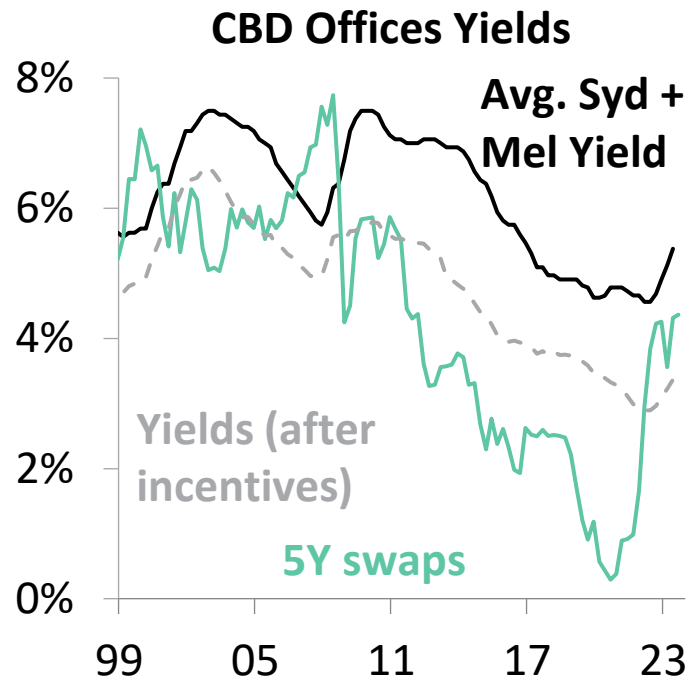
Commercial real estate's pricing reset: limited transactional evidence, particularly for offices, better for logistics

	Latest Market Cap Rates % [bps shift since end 2021]			Interest Rates % [bps shift since cyclical low]		Financing rates core secured (LTV: 50%)
	CBD Office	Multifamily / Build-to-Rent (BTR)	Logistics	Cash rate	10Y bonds	Avg of 1. 5Y swaps + margin 2. Baa corporate yield
US (national)	Headline: 7.0-9.0 [+250 bps] Economic: 5.5+	5.25-5.5 [+175 bps]	4.5 [+75 bps]	5.25-5.5 [+525 bps]	4.3 [+330 bps]	Ex-office: 6-6.5%
Eurozone	Avg. Paris/Munich: 3.7 [+110 bps] ¹ Amsterdam: 4.2 [+120 bps] ²	3.8 [+140 bps]	4.4 [+130 bps] ³	4.25 [+425 bps]	2.9 [+340 bps] ⁴	5-5.5%
UK (London)	5.0 [+125 bps]	3.85-4.0 [+30 to +40 bps]	4.5 [+150 bps]	5.25 [+515 bps]	4.5 [+430 bps]	6.5-7%
Australia (Syd/Mel)	Headline 5.4 [+70 bps] Net: 3.5	4.25 [+25 bps]	4.85 [+120 bps]	4.1 [400 bps]	4.1 [+320 bps]	6%
Japan (Tokyo)	2.5-3.0 [-20 bps]	3-3.5 [-10 bps]	3.25-3.75 [-10 bps]	-0.1 [unchanged]	0.6 [+6 bps]	1.5%

Source: MAM Real Estate, Bloomberg, CBRE, CoStar, Green Street, JLL, Knight Frank, Oxford Economics, as at September 2023. 1. Average Paris & Munich 2. Amsterdam only. 3. Average Paris, Munich & Amsterdam. 4. Average Germany, France and Netherlands.

Financing costs are high relative to in-place yields suggesting further upward pressure on cap rates, if rates remain unchanged

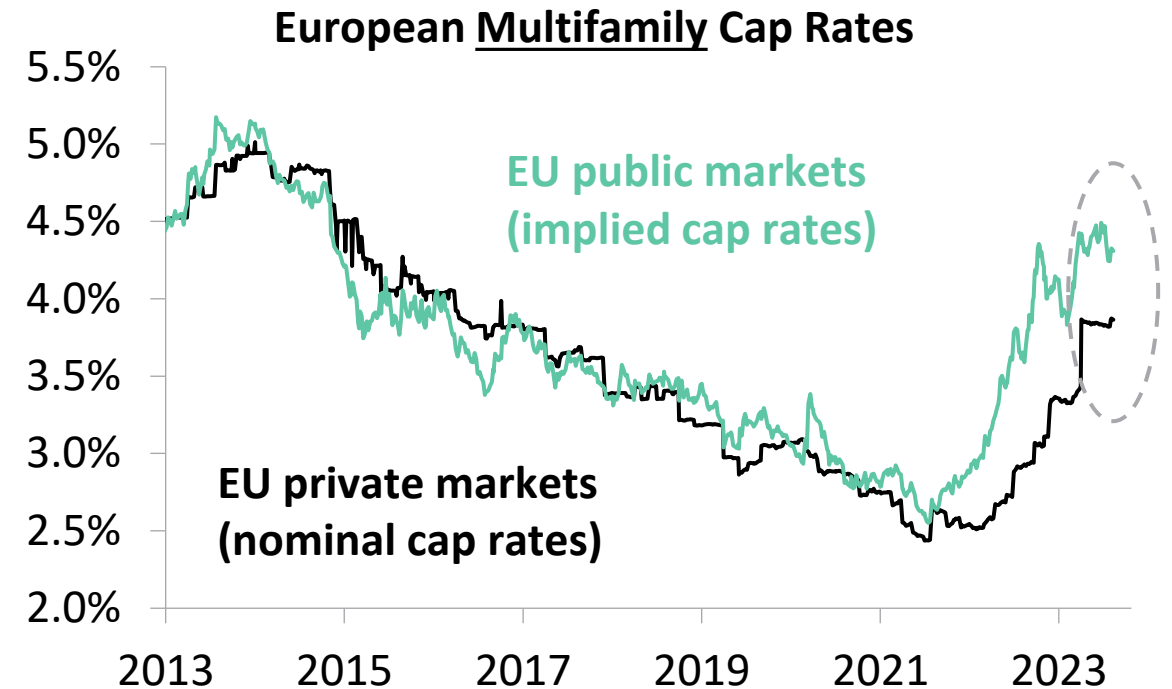
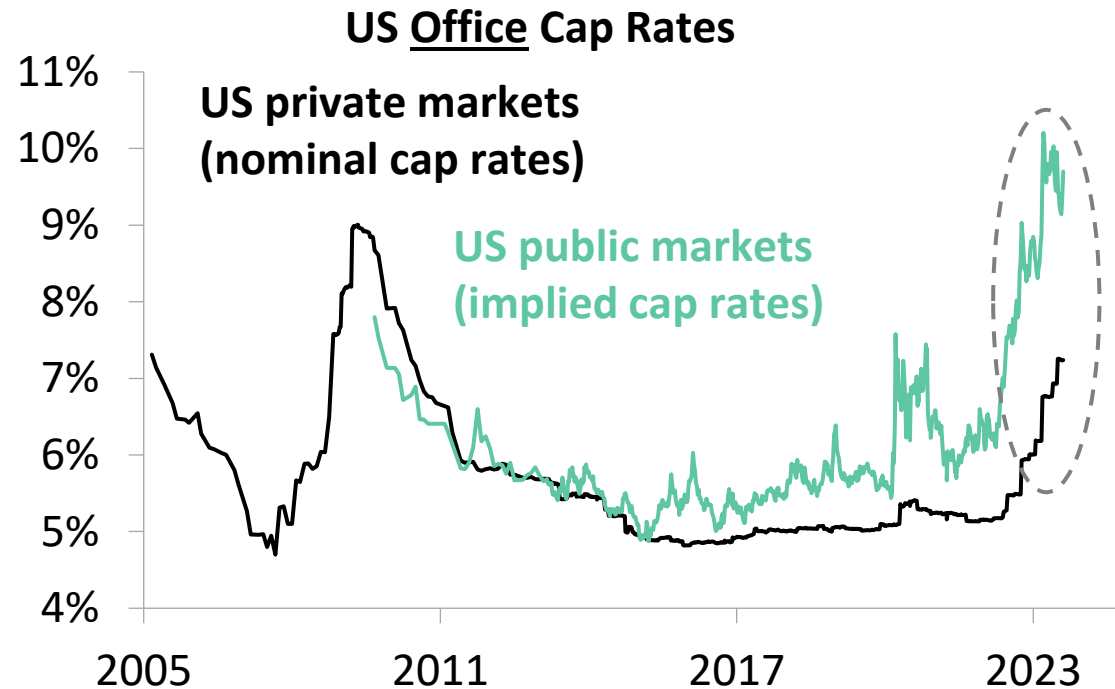
Relying on income growth (higher rents + tighter vacancies) to drive total returns in the core space outside of the Japanese market



Sources: MAM Real Estate Strategy, Bloomberg, JLL, PMA, as at September 2023.

US and European public and private pricing - Implied cap rates are suggesting further downward pressure on private pricing...

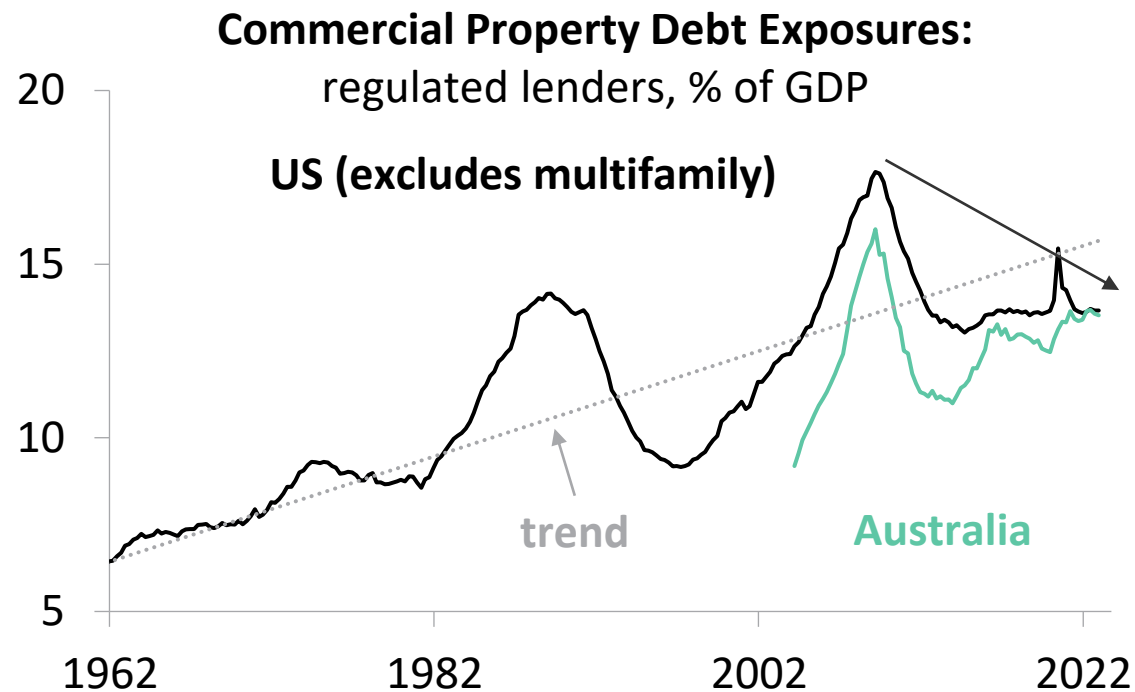
...particularly in sectors with structural issues (secondary offices) or regulated rents (European rental housing)



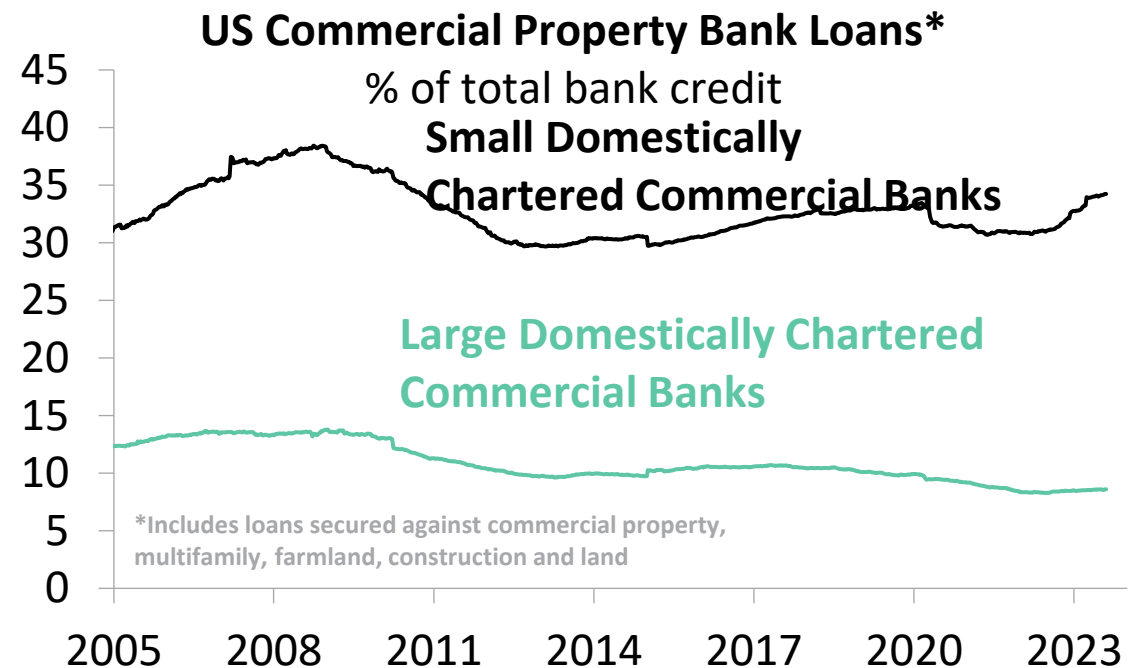
Source: MAM Real Estate Strategy, Green Street, as at September 2023.

Commercial property leverage appears manageable, but pockets of stress are emerging (secondary offices & retail)

Long debt cycles – total regulated lending exposure appears well contained which should help to minimise overall stress



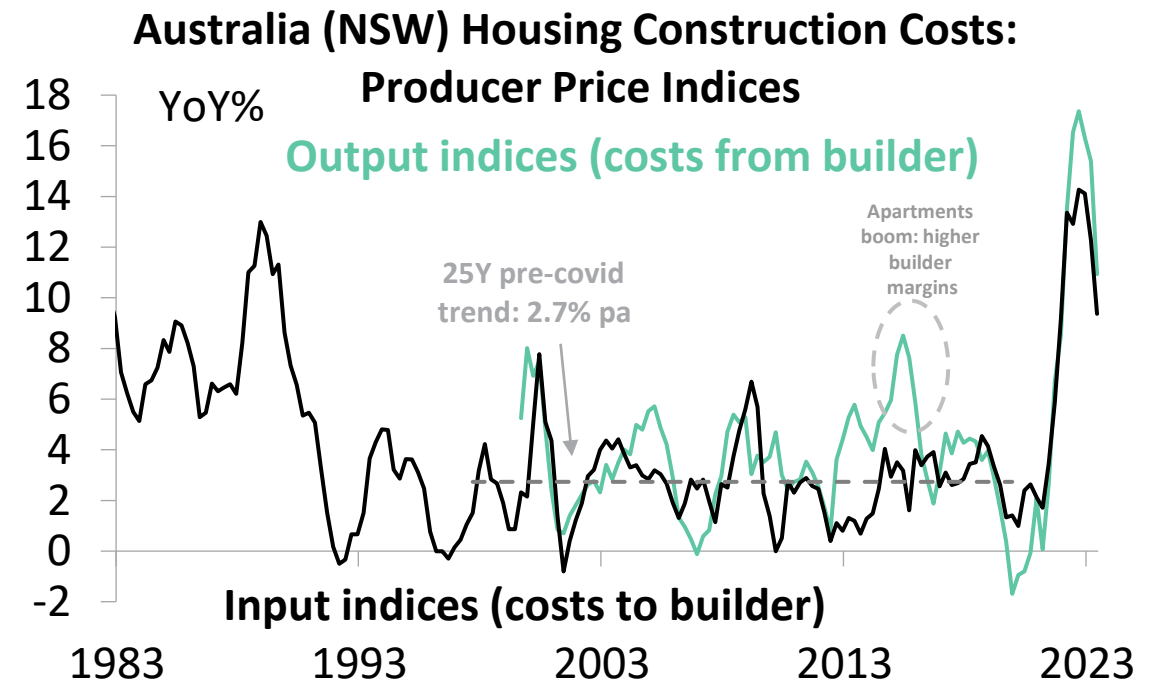
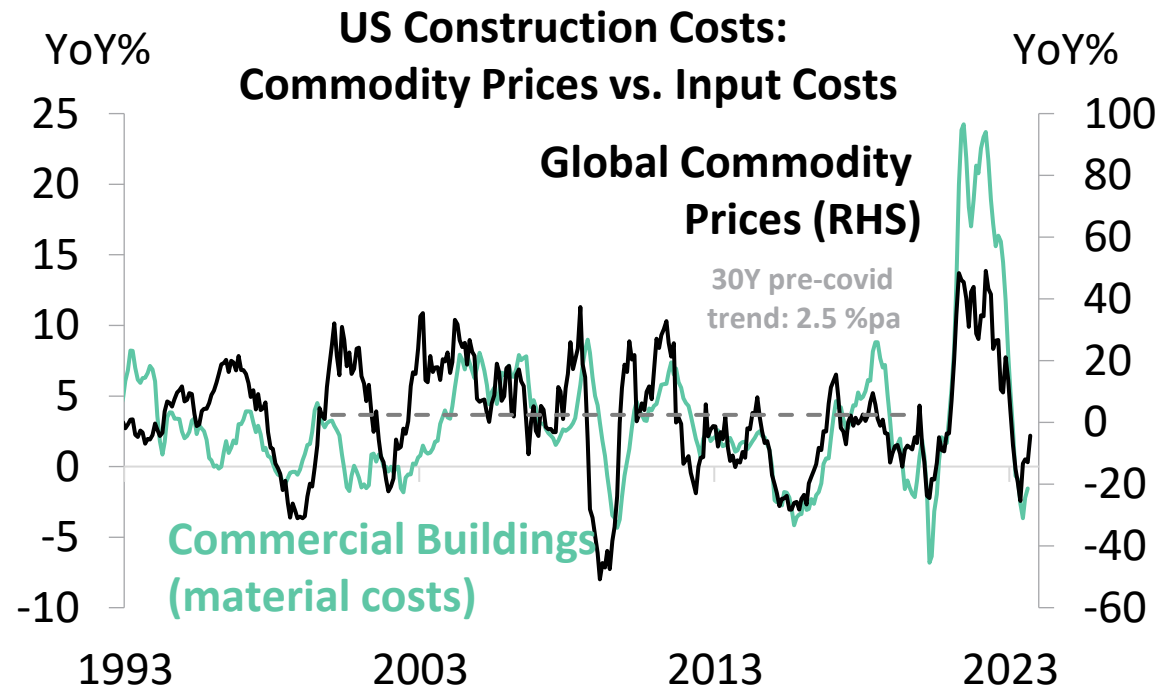
Sources: MAM Real Estate Strategy, APRA, Bloomberg, Macrobond, Mortgage Bankers Association, as at September 2023.



- US small regional banks represent ~66% of outstanding US commercial bank loans secured against commercial property but just ~35% of total outstanding bank credit
- According to the Mortgage Bankers Association, US Banks & Thrifts represent ~38% of outstanding commercial & mortgage loans at 1Q23. Agency & GSE portfolios 21%, Life Insurance companies 15%, CMBS, CDO 13% and other lenders 13%.

Construction cost inflation appears to have peaked in this cycle, but prices are unlikely to reset to pre-covid levels anytime soon

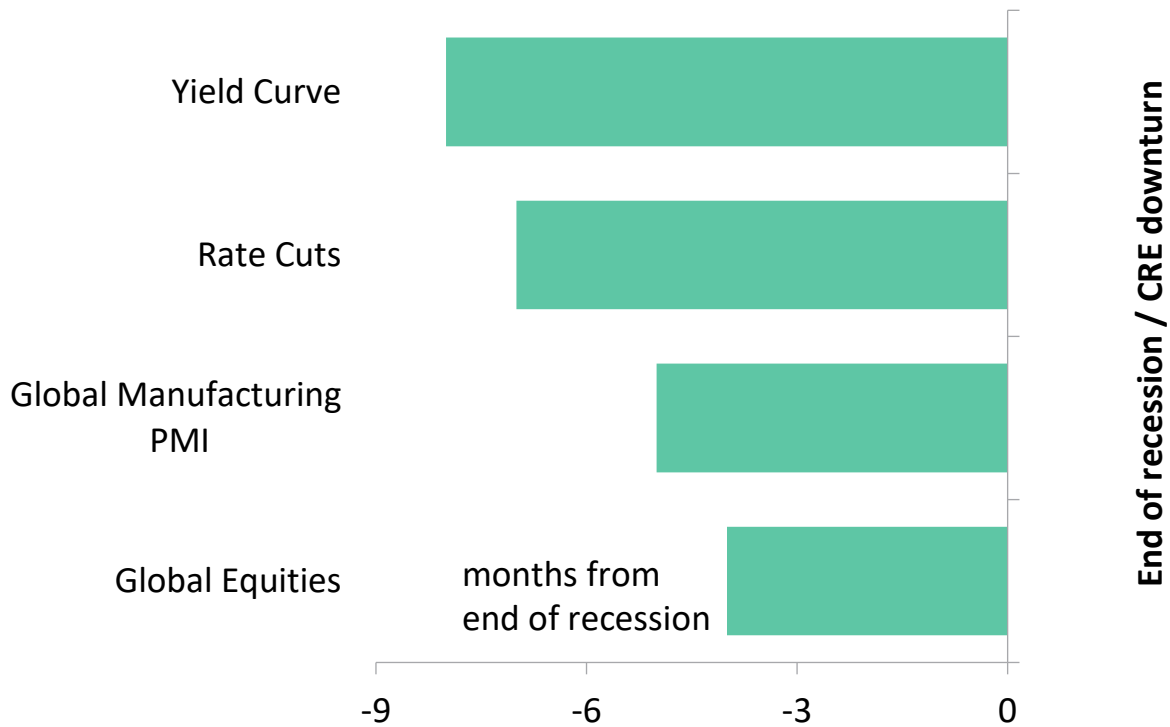
Some evidence that costs have fallen a bit in the US with lower raw material prices + increased contractor availability



Source: MAM Real Estate Strategy, Bloomberg, as at September 2023.

What indicators are we following for a sustained upswing (7Y+) in asset pricing and real estate?

Leading Indicators for Market Upswings



Source: MAM Real Estate Strategy, Bloomberg, as at September 2023.

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Looking for policy support (and we are confident it will come)

Indicator	Variable	Condition
Yield Curve	US 10Y - 2Y bond spread	• Turns positive and >50 bps ~8 months ahead of recessions ending
Rate Cuts	Fed Funds Rate	• -150 bps over a four month rolling period some ~7 months ahead of recessions ending
Manufacturing Production	Global Manufacturing PMI	• US ISM manufacturing starts rising on a m/m basis ~5-6 months ahead of the end of recessions
Global Equities	MSCI World	• Markets tend to start rising on a sustained m/m basis ~4 months before the end of recessions

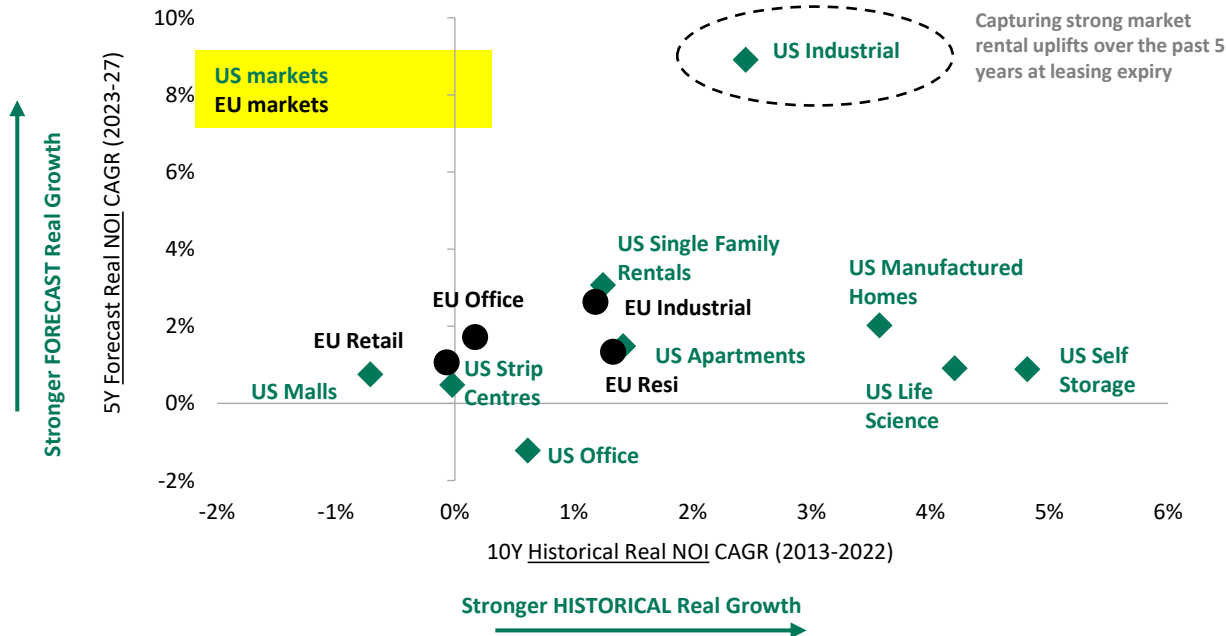
02

Real Estate Themes and Fundamentals



Global property's inflation hedging characteristics

Europe and US Historical and Forecast Same-Store Incomes in Real Terms
 Green Street Net Operating Income (NOI) Growth
 – Deflated by US/Eurozone CPI (Oxford Economics forecasts)



Source: MAM Real Estate Strategy, Green Street, Oxford Economics, as at September 2023.

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Short duration sectors where leases & cash flows can be reset in line with inflation & wages such as rental housing, self-storage, single family rentals

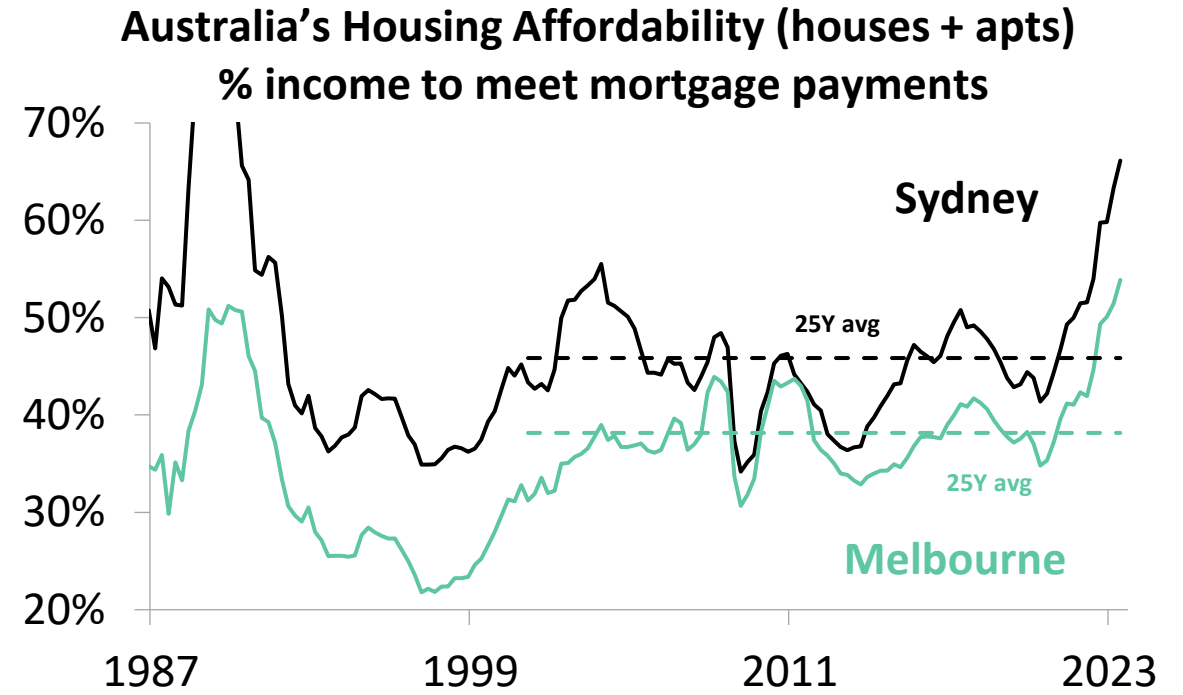
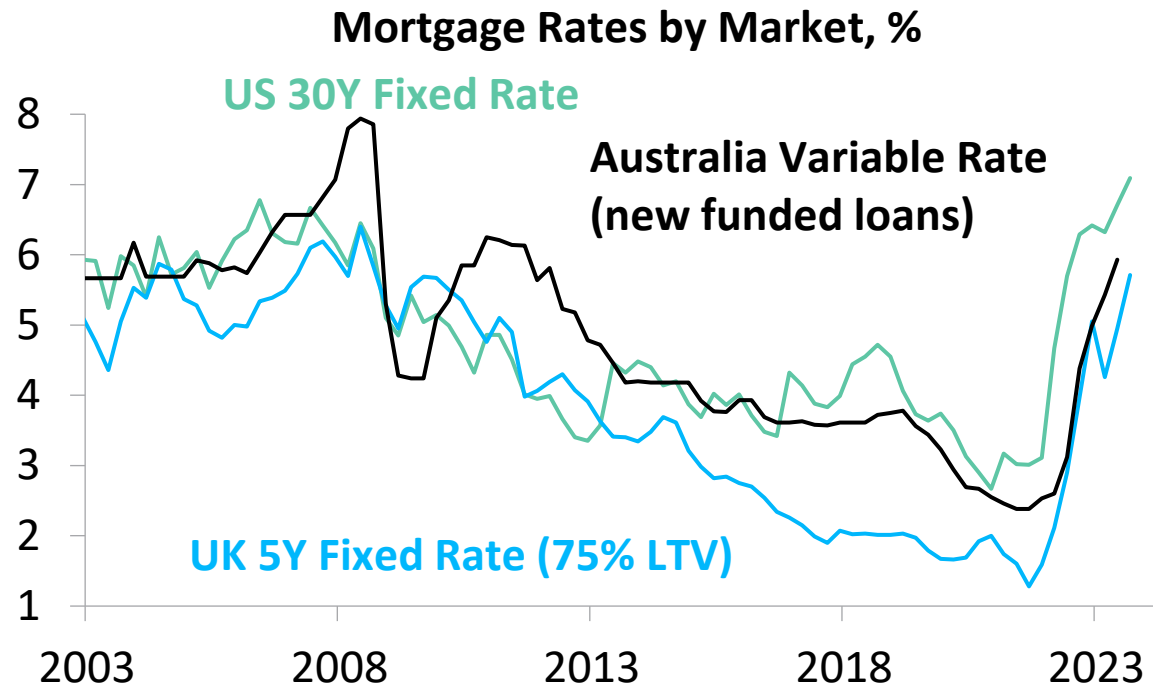
Value added and refurbishment opportunities in sectors with strong fundamentals where rents can be reset in line with high inflation and cost pressures eg industrial, life sciences

Inflation-linked leases for existing buildings...still available but less common these days with shift to fixed rental uplifts

Re-introduction of CPI escalators for new prime office developments given occupier focus on high quality space, ESG considerations

Homeownership affordability metrics are worsening – price rises + further rate hikes will add further pressure

Percent of income required to service a mortgage (P&I) is now back to early 90s levels for buyers with 25% deposits

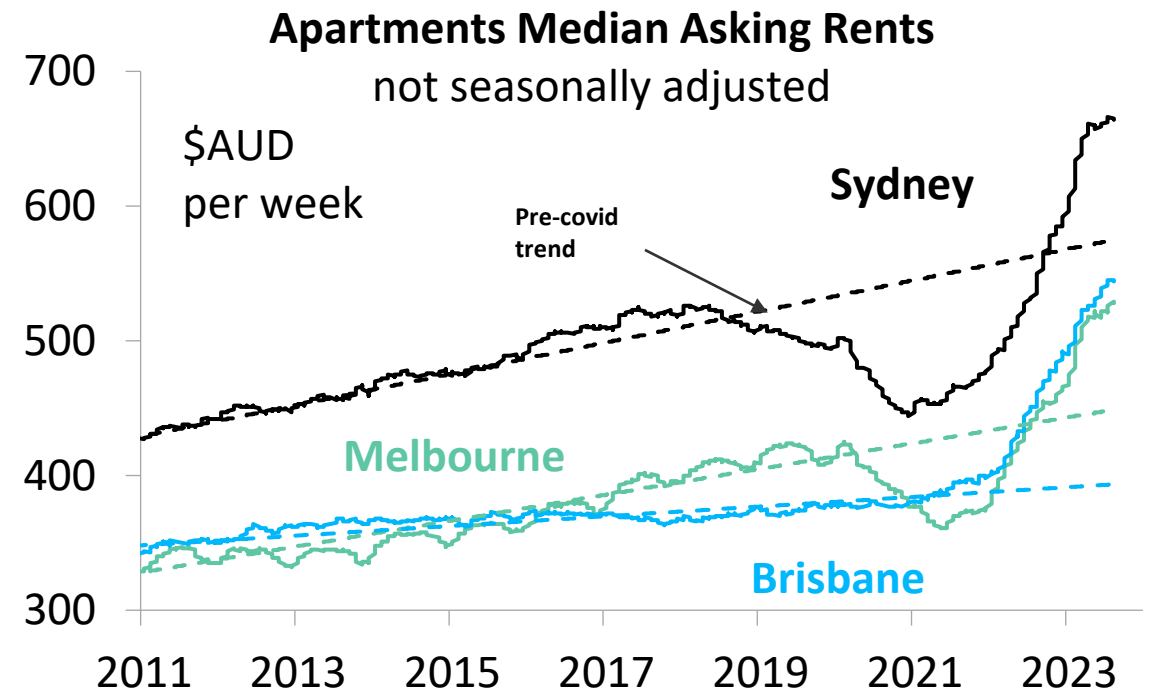
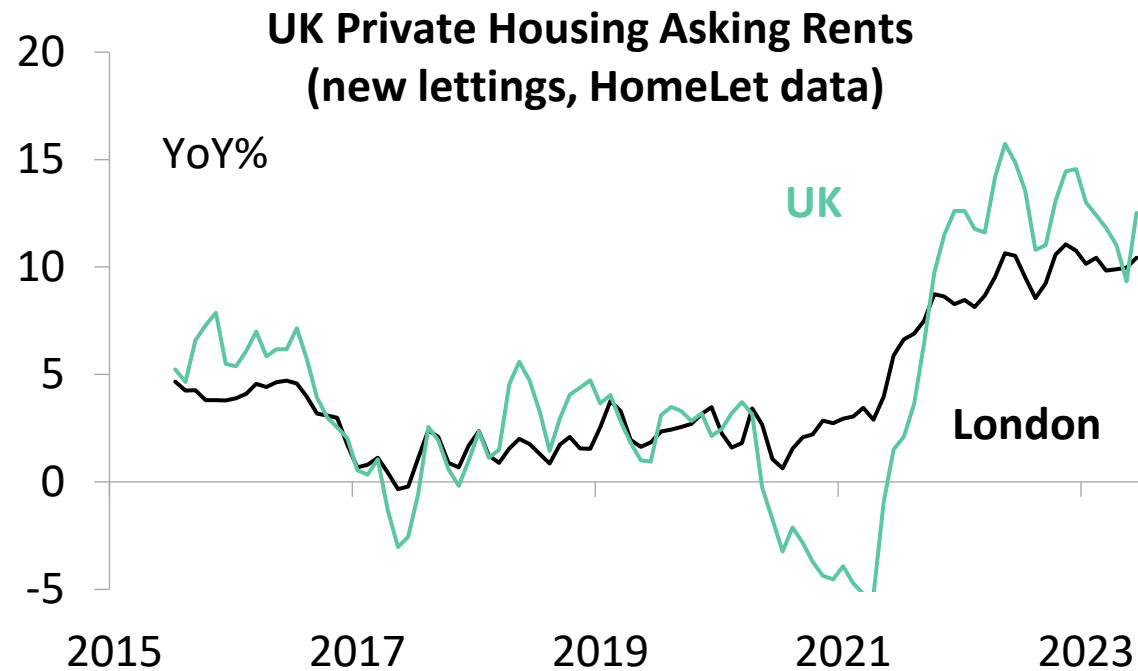


Source: MAM Real Estate Strategy, ABS, APM, Bloomberg, RBA, ONS, US Federal Reserve Economic Data, as at September 2023.

- Assumptions:**
- LTV 75%
 - 25-year term
 - P&I loan
 - Median city household incomes
 - Median city prices
 - Standard variable rates

Rental housing: fundamentals are tight – similar trends observed across developed markets, including UK and Australia

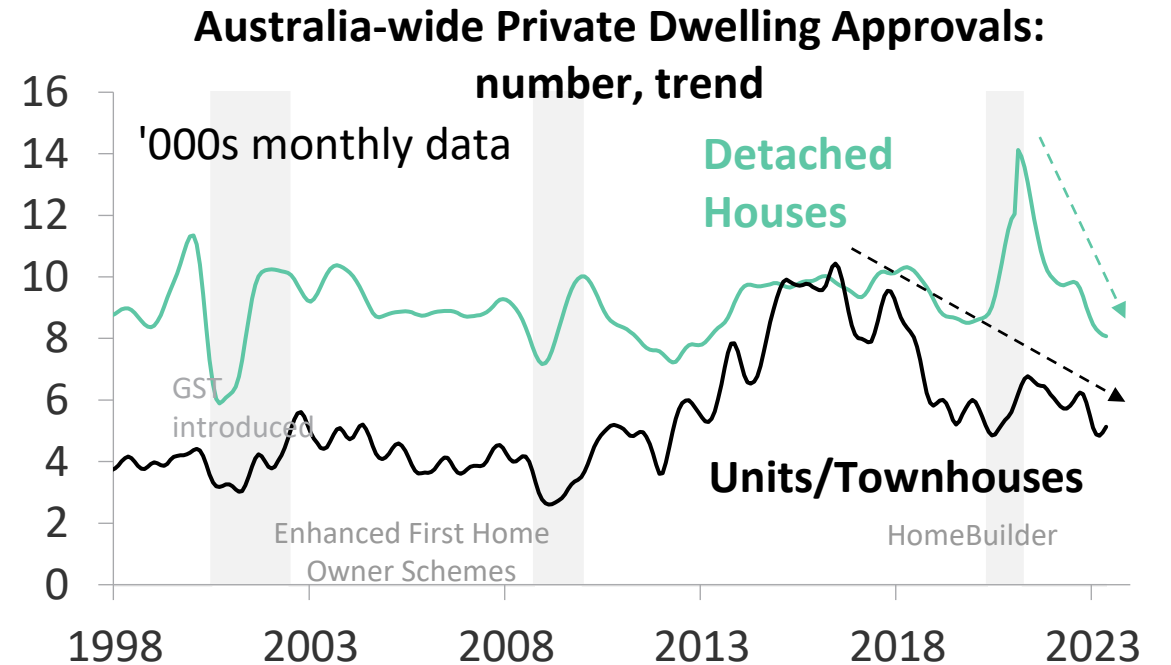
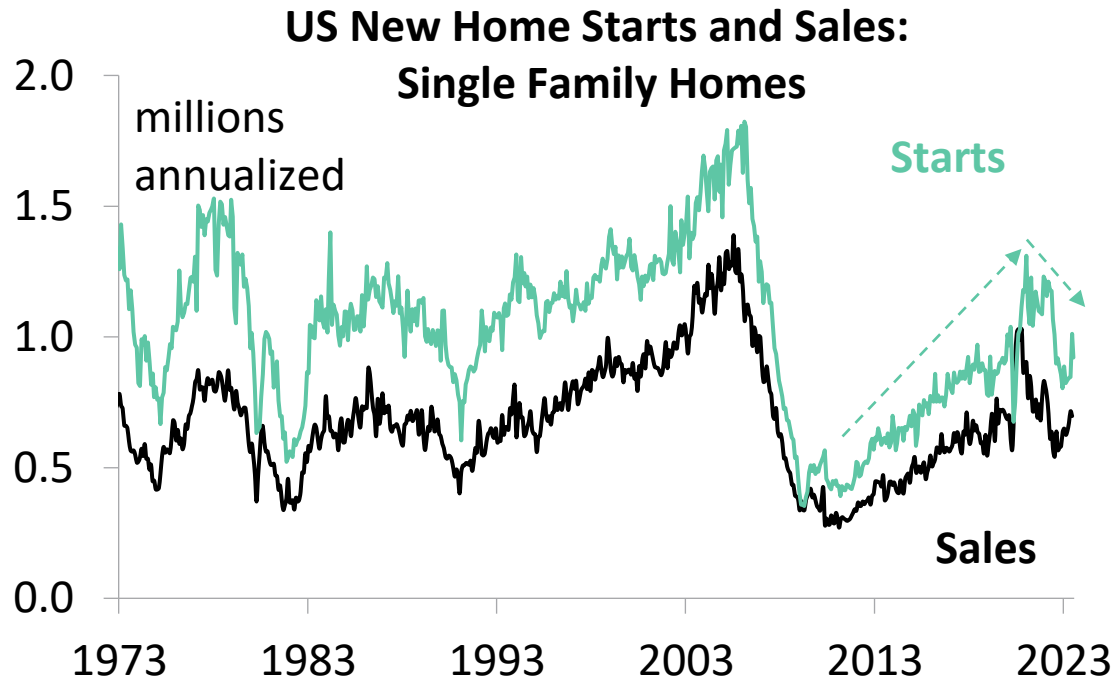
Drivers include stretched housing affordability for purchase, household formation and tight vacancy



Sources: MAM Real Estate Strategy, ABS (Australia), ONS (UK), US Federal Reserve Economic Department (Eurozone and US), Macrobond, as at September 2023.

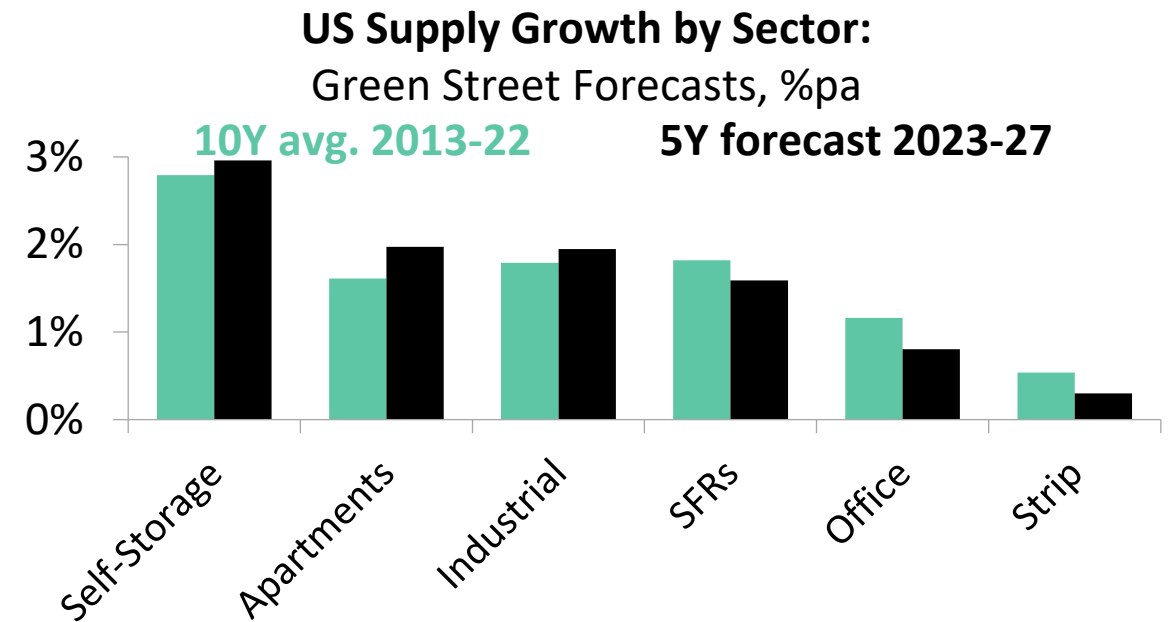
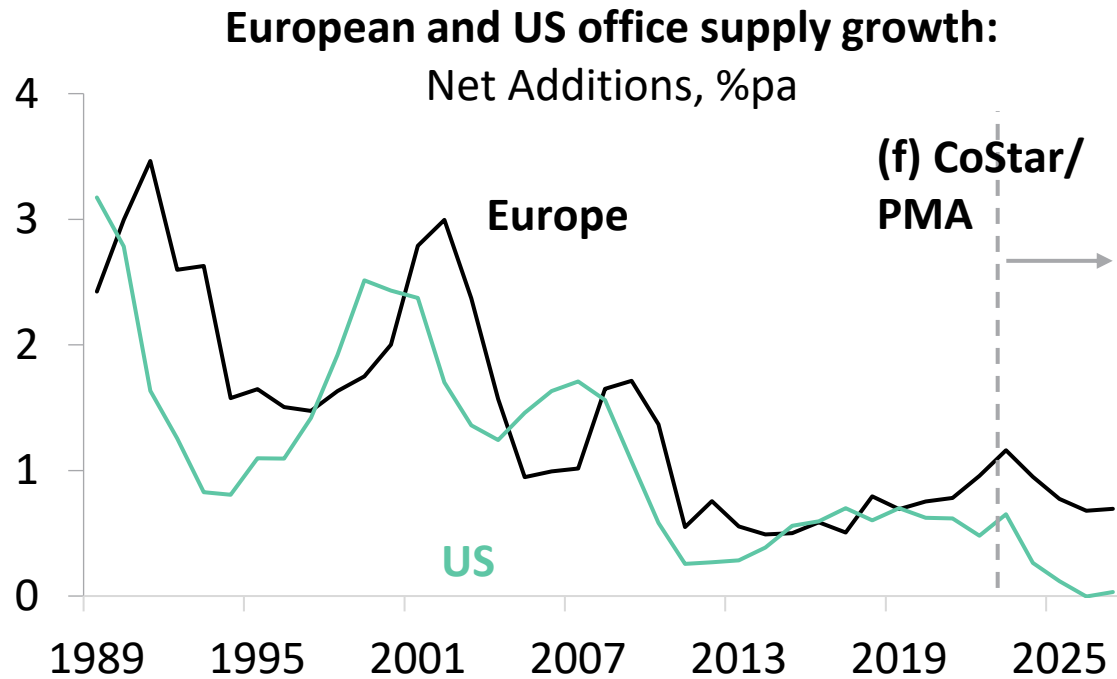
We believe that house price softness and pullback in starts will amplify housing shortages over the medium term

Lower land values may create opportunities to acquire sites at cheaper prices



Source: MAM Real Estate Strategy, ABS, Bloomberg, as at September 2023.

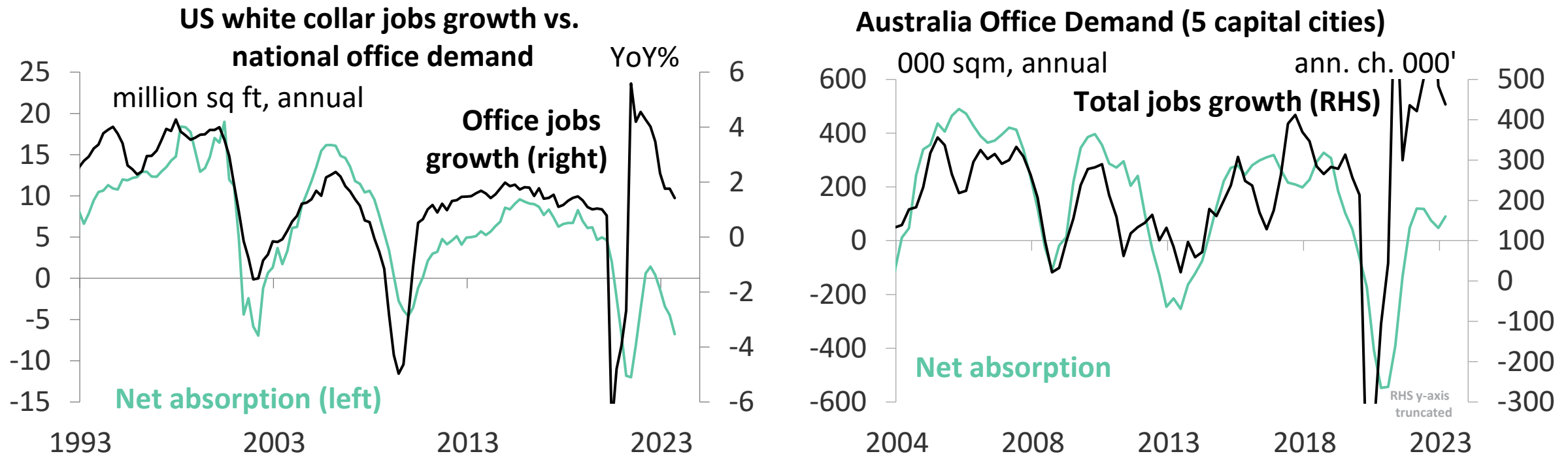
Development pipelines appear well contained vs. previous cycles and concentrated in sectors with stronger demand drivers



Sources: CoStar (US offices), PMA (European offices), Green Street, as at September 2023. These estimates constitute forward-looking calculations based on assumptions, opinions, and estimates regarding future events and circumstances that are considered to be reasonable at the time of preparation.

Usual office demand drivers have broken down across markets, at least temporarily

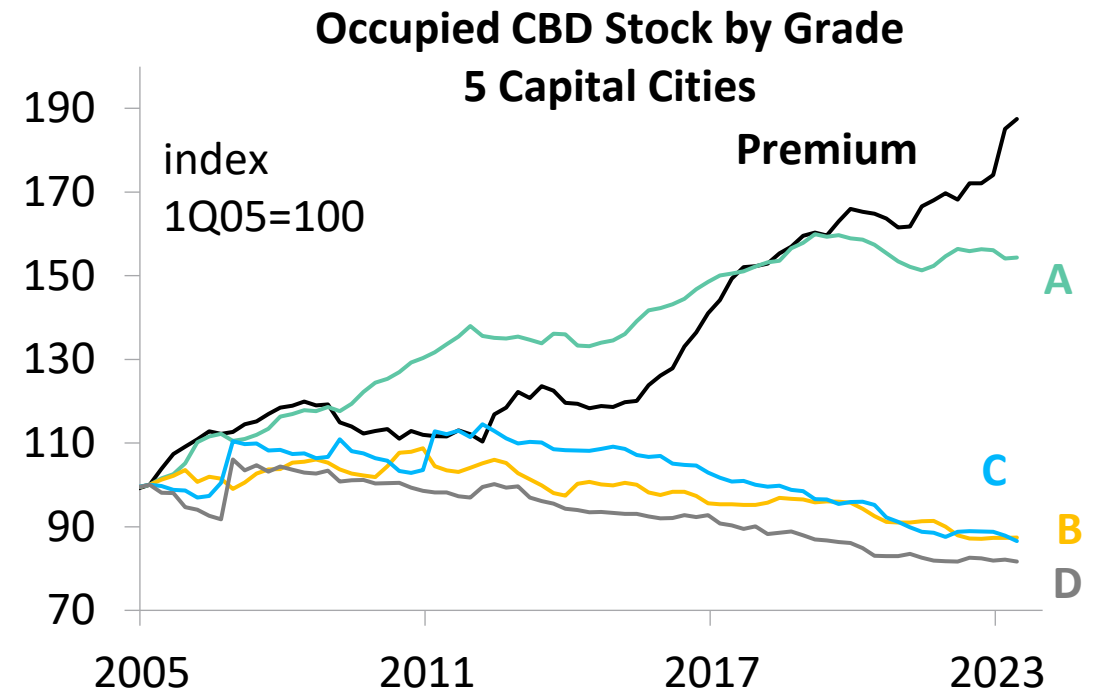
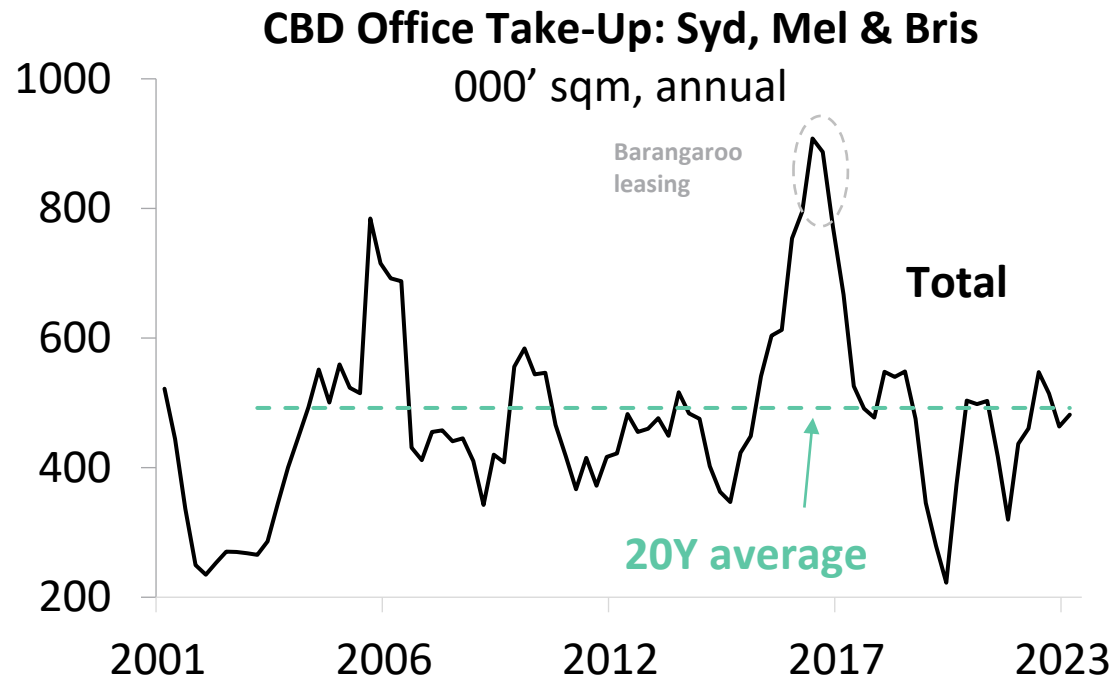
In the past, jobs growth equated to positive net absorption



Sources: Bloomberg, BLS, CoStar, JLL, as at September 2023. *Office using jobs sectors: Financial activities, Professional and Business Services, IT, government jobs

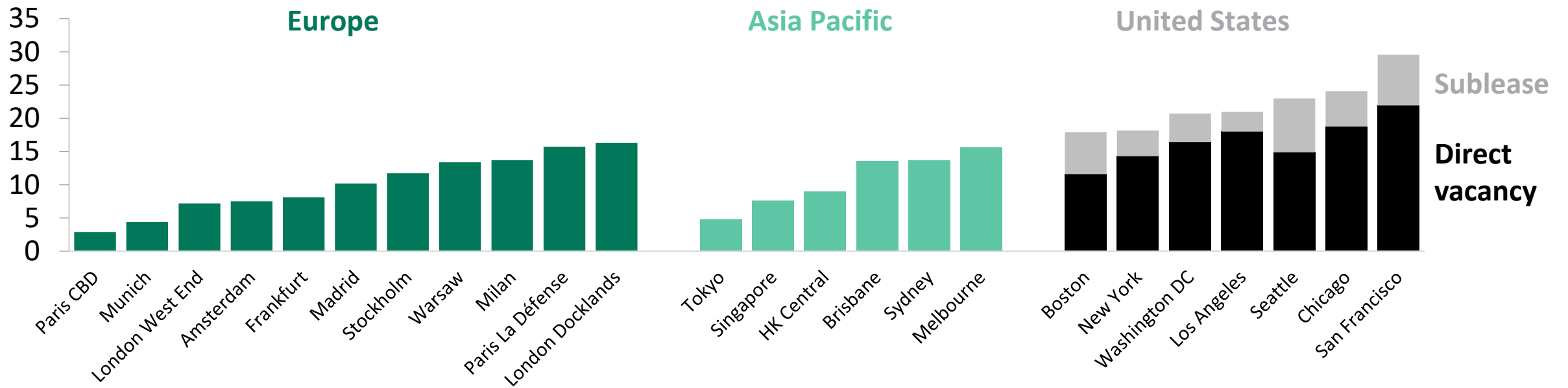
Gross leasing activity has recovered from COVID disruptions with demand focused on higher quality space (as it always is)

Large occupiers 'right-sizing' their spacing requirements and focusing on high quality space in CBD and well-connected markets



Office occupancy rates are diverging across regions and markets: existing vacancy is more of an issue in the US

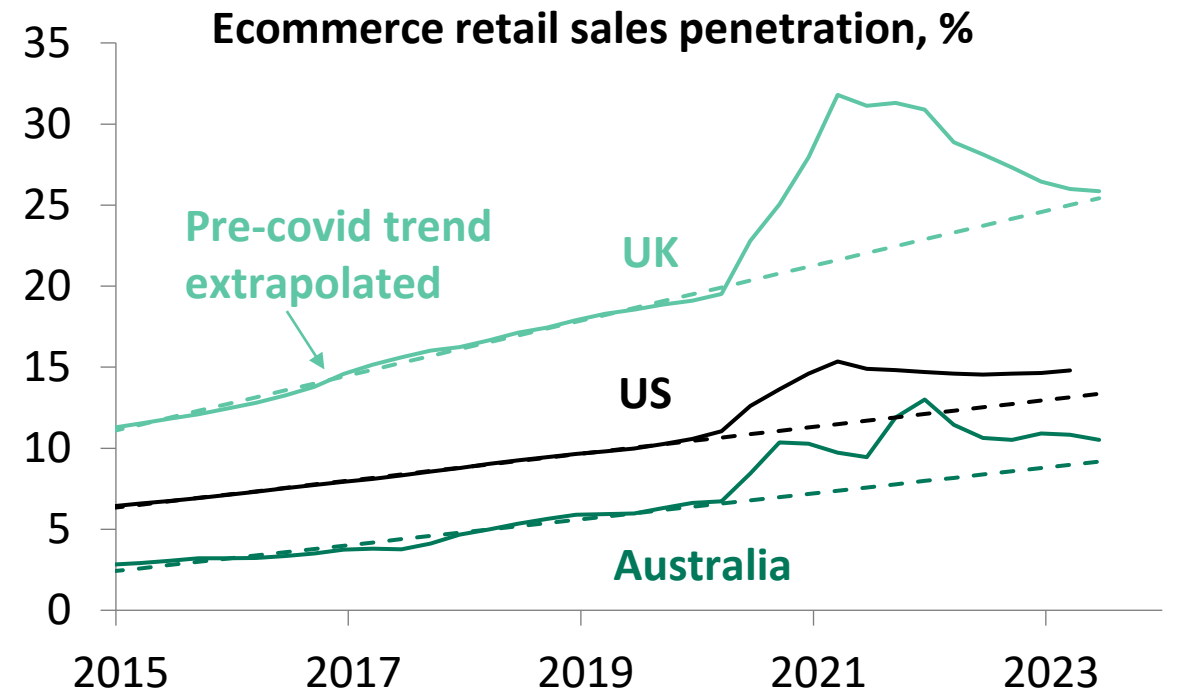
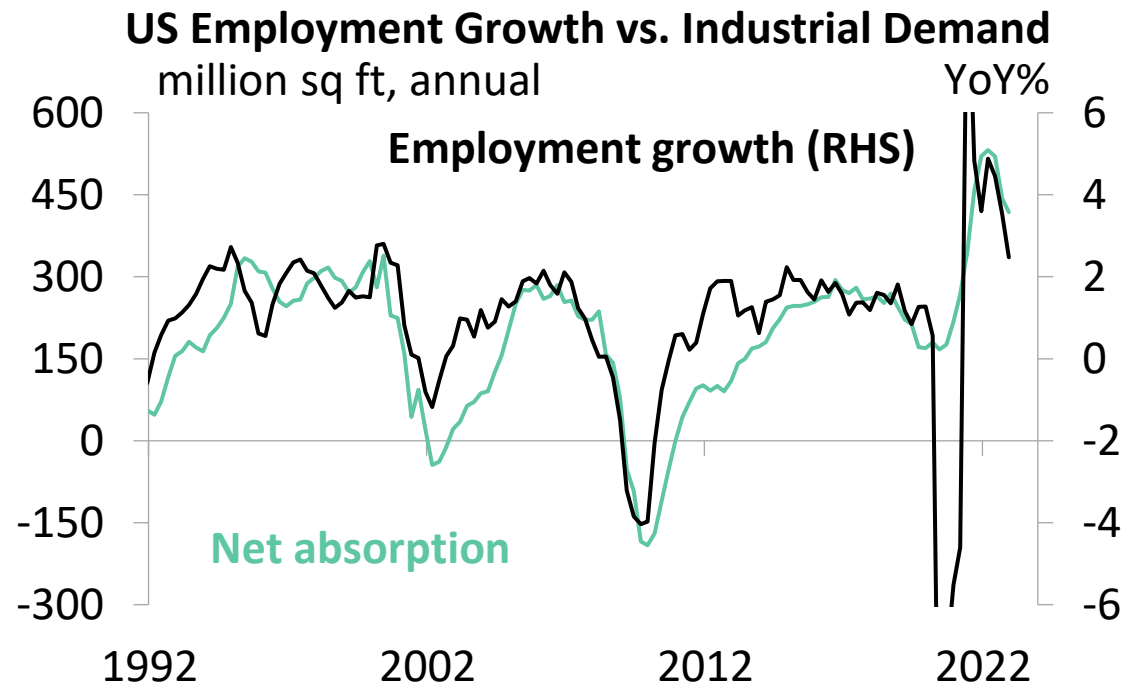
Latest gateway Central Business District office vacancy (% stock vacant, including space offered by tenants)



Source: MAM Real Estate Strategy, CoStar, JLL, PMA, as at September 2023.

Industrial sector: demand drivers

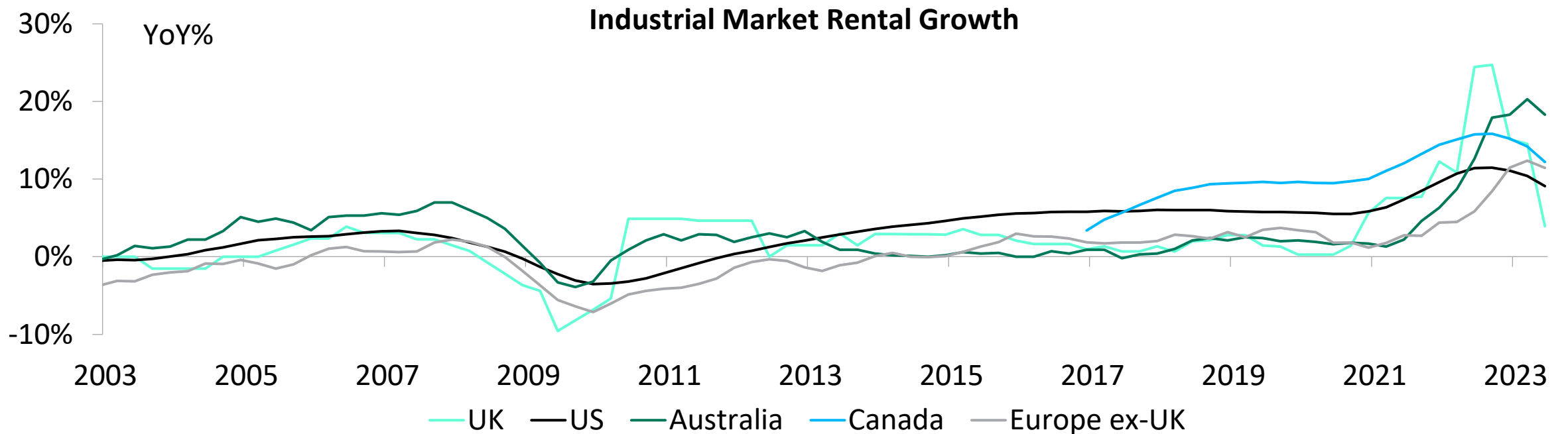
Shift to online retail sales has supported demand for logistics & warehousing space around large consumer populations



Sources: MAM Real Estate Strategy, Bloomberg, BLS, CoStar, PMA, as at September 2023.

Industrial sector: rental growth remains strong supported by solid fundamentals, though demand is normalizing

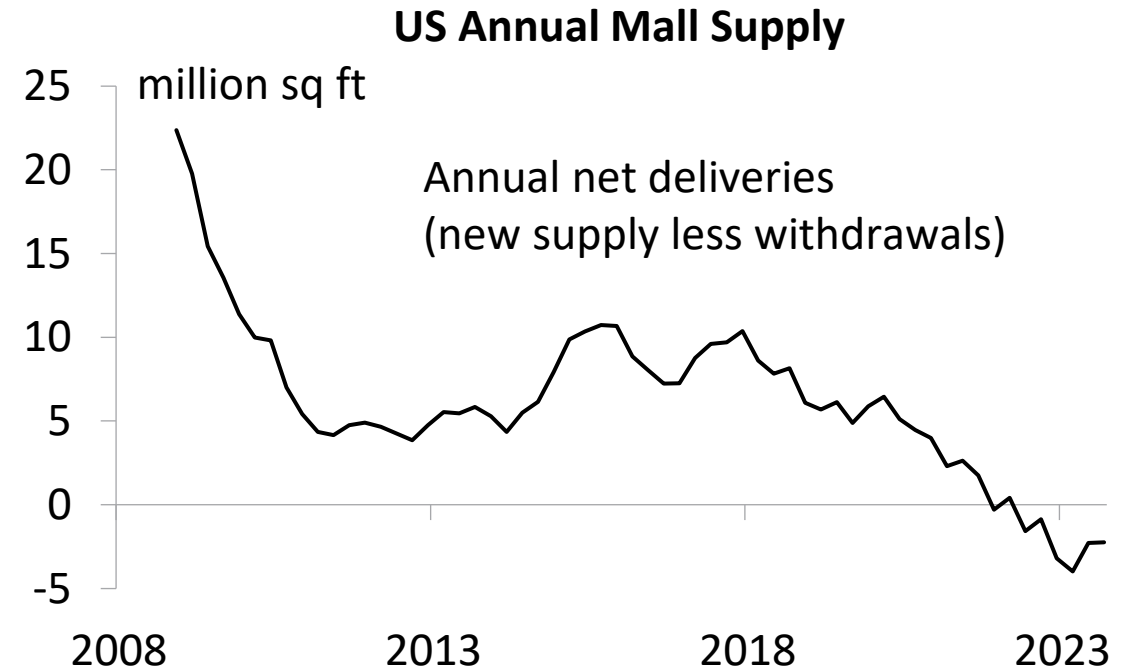
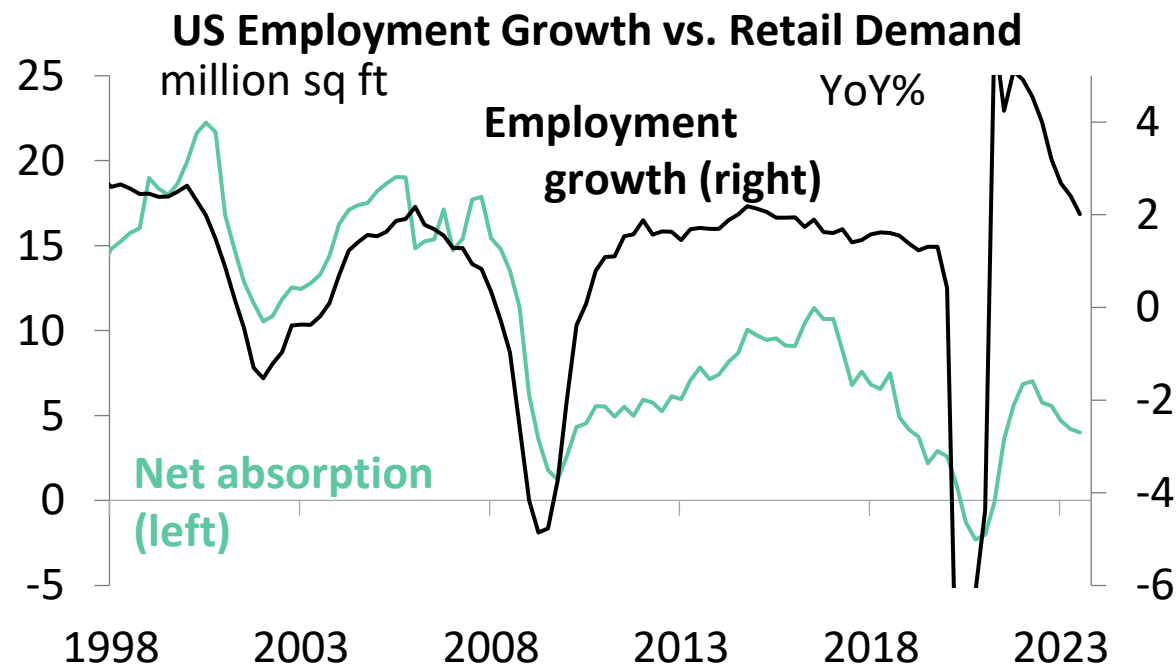
Industrial market rental growth across key developed markets



Sources: MAM Real Estate Strategy, CoStar, JLL, as at September 2023.

US high quality mall fundamentals appear to be stabilizing following an extended period of weak demand

'A' Mall market rents are lifting despite a more cautious consumer supported by limited new supply over the past decade



Sources: MAM Real Estate Strategy, CoStar, Macrobond, as at September 2023.