

## Equity Strategy

Open UW in Banks, add to Healthcare; Peripheral views; Earnings season update

- **We are advising to open a short in European Banks**, we move the sector from Neutral to UW. Banks have been one of the best performers in the past 6 months, second only to Energy, are ahead nicely ytd, up 8% vs SXXP at 1%, to be cumulatively ahead by 60% since Sept 2020. Now that most of the Banks sector Q3 earnings updates are out of the way, we believe that it is a good time to move UW in Europe.
- If the bond yields are in the process of peaking this quarter, as we suspect – see our recent report on locking in the [duration trade](#), then Banks could start to struggle. After all, the Banks rally was underpinned by the sharp move up in bond yields over the past 3 years, with German 10 year moving from -0.5% to 3%, and US 10 year from 1% to 5%. **Any potential fall in yields, or the ECB cuts next year, will reduce Banks' profitability.**
- Further, **Banks' deposit base is likely to fall**, and with rising deposit betas their **net interest income is likely peaking now**. The unwind of PEPP, TLTROs and QT, along with a potential change in reserve requirements, could be the concerns. From the regulatory side, the sector might not enjoy as favourable a backdrop as it did recently, with **buybacks and capital return to shareholders as good as they get**. Also, the risk of punitive taxes is elevated – it is being discussed in a number of countries.
- Finally, **Banks remain much more levered than any other sector**, and are a **beta play on overall activity**. Banks could suffer if economies enter contraction, and if some of the very benign credit backdrop changes next year, with spreads widening and delinquencies rising. Regionally, we maintain our preference for Japanese over US and European banks. We are using the funds to **upgrade Healthcare, from Neutral to OW**. The sector has lagged this year, but could benefit from high USD exposure, low beta and the long duration angle.
- If Banks start to lag, then the **periphery could fall behind core markets**. Periphery nicely outperformed the core for a while, Italy is top European performer ytd, up 15%, but Banks relative and peripheral markets relative performances remain very strongly correlated. Within periphery, one could **open the Spain vs Italy trade**. Spain could benefit from greater Latam exposure, where we remain constructive on Mexico and Brazil, while Italy could see some further widening in government spreads.
- Looking at the current reporting season, we note an increased share of profit warnings, and topline deterioration – bottom chart. **After a long string of robust bottom-up results, it appears that earnings are starting to be more challenging** – see our [Q3 preview](#) for more details.
- **We remain bearish on the market direction**, and our sector positioning stays the **barbell of commodities** – led by **Energy**, and the **bond proxies** – such as Utilities and Staples, which are catching up post the earlier poor performance. This is likely to continue if the long duration trade takes hold, and if the earnings momentum for the overall market deteriorates.

**See page 27 for analyst certification and important disclosures, including non-US analyst disclosures.**

J.P. Morgan does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

### Equity Strategy

**Mislav Matejka, CFA** <sup>AC</sup>

(44-20) 7134-9741  
mislav.matejka@jpmorgan.com  
J.P. Morgan Securities plc

**Prabhav Bhadani, CFA**

(44-20) 7742-4404  
prabhav.bhadani@jpmorgan.com  
J.P. Morgan Securities plc

**Nitya Saldanha, CFA**

(44 20) 7742 9986  
nitya.saldanha@jpmchase.com  
J.P. Morgan Securities plc

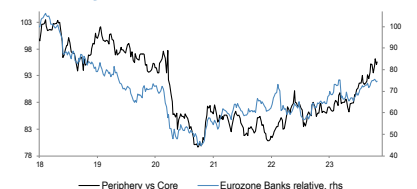
**Karishma Manpuria, CFA**

(91-22) 6157-4115  
karishma.manpuria@jpmchase.com  
J.P. Morgan India Private Limited

**European Banks have outperformed the market by 60% over the past 3 years, helped by rising earnings and bond yields... this could be changing...**



**...periphery likewise was ahead of the core in the last 3 years... if Banks stop working, periphery will too...**



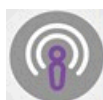
**...the latest reporting season is showing the worst topline surprises in Europe on record**



Source: Datastream, J.P. Morgan, Bloomberg Finance L.P.

## Table of Contents

Open UW in Banks; Peripheral views; Earnings season update.....	3
Appendix .....	15
Equity Strategy Key Calls and Drivers .....	17
Top Picks .....	18
Equity Flows Snapshot.....	19
Technical Indicators .....	20
Performance .....	21
Earnings .....	22
Valuations .....	23
Economic, Interest Rate and Exchange Rate Outlook .....	25
Sector, Regional and Asset Class Allocations .....	26

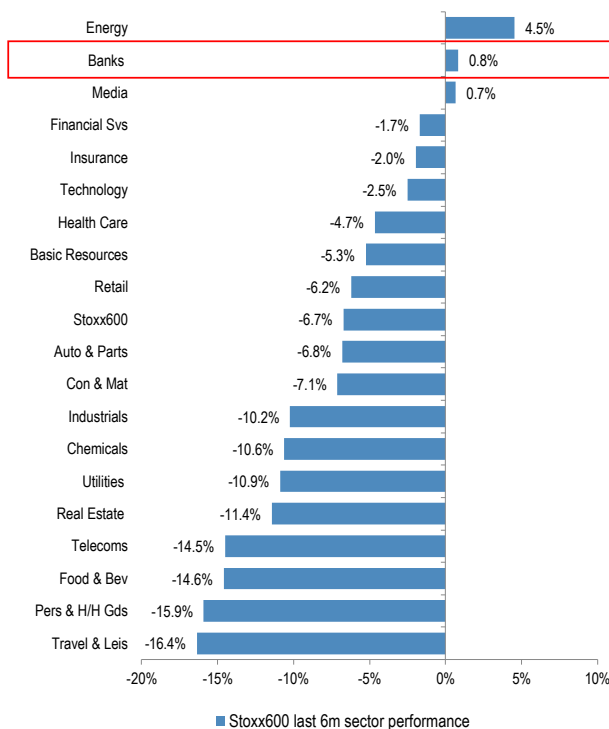


Click here for our  
weekly podcast

*Anamil Kochar (anamil.kochar@jpmchase.com) of J.P. Morgan India Private Limited is a co-author of this report*

## Open UW in Banks, add to Healthcare; Peripheral views; Earnings season update

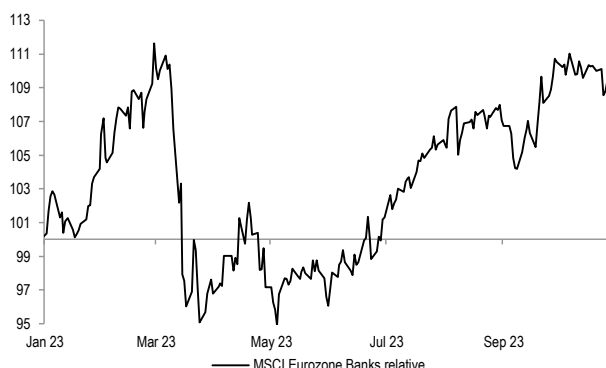
Figure 1: Stoxx600 sectors last 6m performance



Source: Datastream

European Banks have been one of the best performing sectors in the last 6 months, only behind Energy.

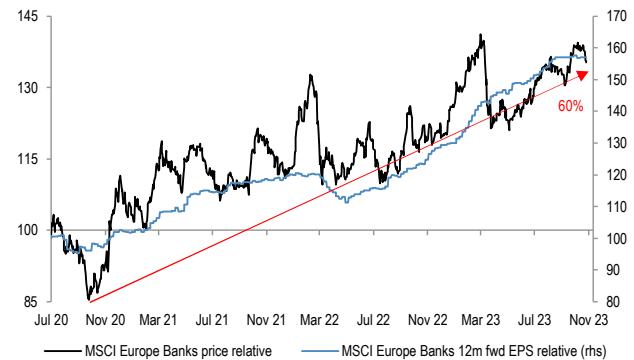
Figure 2: Eurozone Banks relative



Source: Datastream

Eurozone Banks in particular are trading around ytd relative highs at present.

Figure 3: MSCI Europe Banks relative and EPS relative



Source: Datastream

European Banks are up 8% ytd, vs SXXP at 1%. The group has seen a substantial 60% outperformance since the lows in September '20, helped by rising earnings.

Table 1: Past periods of MSCI Europe Banks outperformance

Start date	End date	Duration (years)	MSCI Europe Banks outperformance (%)
03-Jun-96	22-Apr-98	1.9	37.2%
10-Mar-00	07-Jan-05	4.8	70.1%
24-Jul-12	15-Jan-14	1.5	30.2%
25-Sep-20	20-Oct-23	3.1	61.4%

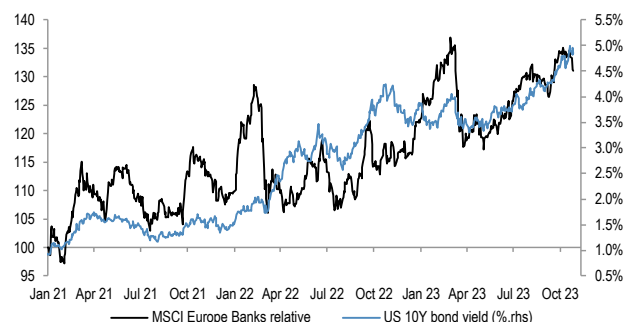
Source: Datastream

Past periods of Banks outperforming the market have not tended to be much greater in magnitude, nor in duration, vs the current one.

We believe that the benefits of higher rates are likely now behind us, and NII for Banks is set to peak out. We use this opportunity to downgrade Banks to UW in Europe.

**Rates remain a key driver for the sector... the potential peak in bond yields could hurt Banks' performance**

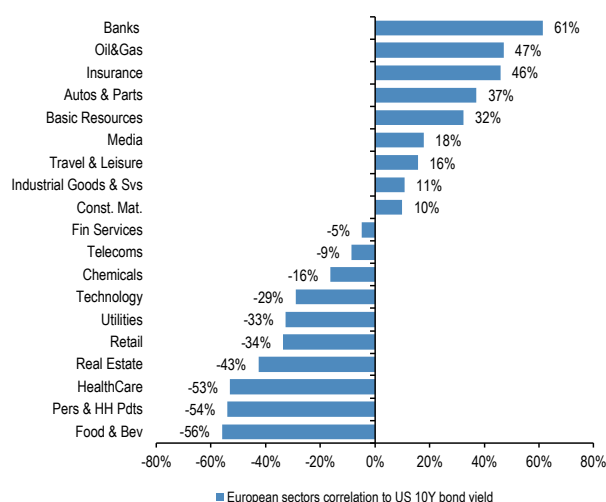
**Figure 4: European Banks relative vs US 10Y bond yield**



Source: Datastream, Bloomberg Finance L.P.

The rally in Banks coincided with the move up in German 10 year bond yields from -0.5% to 3%, and US from 1 to 5%.

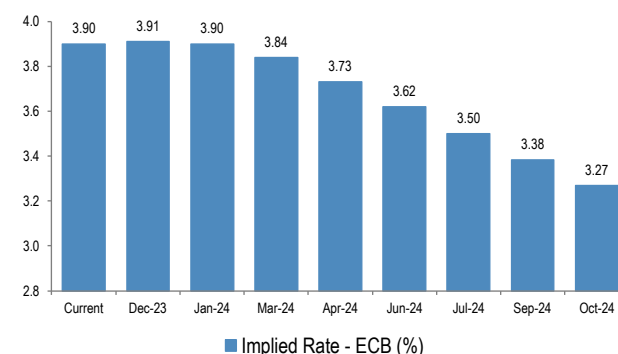
**Figure 5: European sectors correlation to bond yields**



Source: Bloomberg Finance L.P.

The group traditionally displays the most positive correlation to bond yields. If bond yields peak out, or if ECB cuts rates next year, Banks stocks' profitability is likely to weaken.

**Figure 6: Implied Rate - ECB**



Source: Bloomberg Finance L.P.

Our European Banks Research team estimates that a 25 bp rate cut, if it is translated across the curve, would result in a 5% cut in 2025 EPS, assuming a deposit beta of 25%. They flag that this is currently not discounted in consensus estimates – see [report](#).

**The sector could face a number of regulatory and other risks**

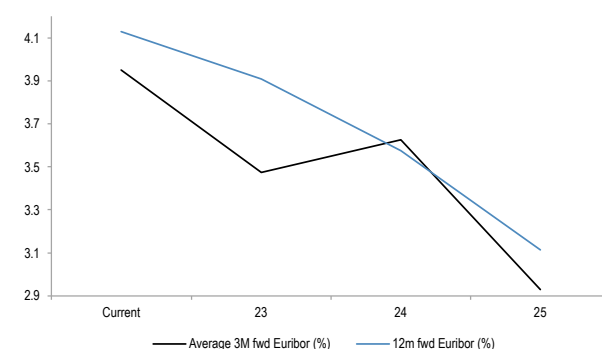
**Table 2: Long-Medium Term JPM deposit beta**

Country	Long-medium term Deposit Beta
UK	50%
France	50%
Netherlands	50%
Germany	35%
Spain	High 30 – 50%
Portugal	High 30 – 50%
Italy	30 - 40%
Nordics	60-70%

Source: J.P. Morgan. European Banks Research

A rise in deposit betas is likely to be a meaningful headwind to the sector.

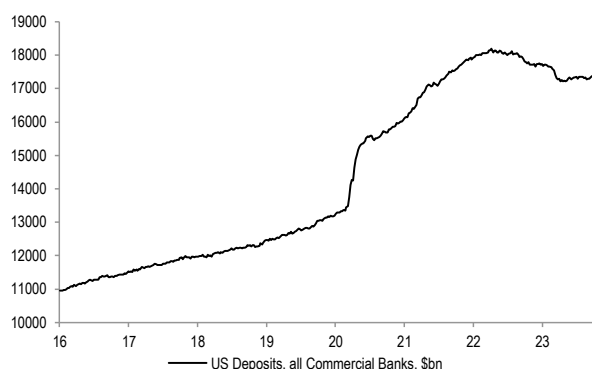
**Figure 7: Average 3m and 12m fwd. Euribor**



Source: J.P. Morgan. European Banks Research

Our Banks analysts [expect](#) sector NII to peak by the end of this year, as deposit betas rise, Euribor curve falls, and with the potential increase in minimum reserve requirements.

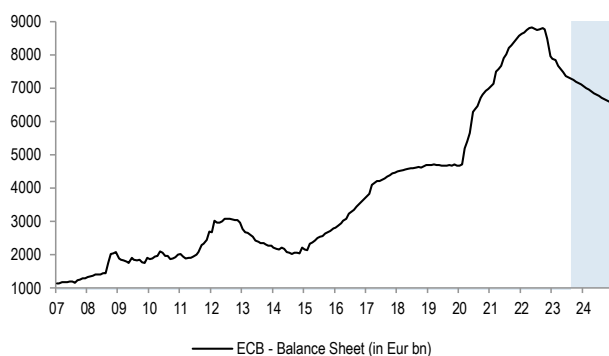
Figure 8: US Deposits, all Commercial Banks



Source: Federal Reserve Economic Data

In addition, they flag that the deposit base is likely to keep falling, both in Eurozone and in the US.

Figure 9: ECB Balance Sheet



Source: J.P. Morgan

The ongoing QT is likely to further hurt deposit growth.

Table 3: Central Bank QT Programmes

QT Programmes	
	- APP (Asset purchase programme) - no longer reinvests the principal payments from maturing securities
ECB	- PEPP (Pandemic emergency purchase programme) - reinvest the principal payments from maturing securities purchased under the programme until at least the end of 2024 (although the Governing Council will continue applying flexibility in reinvesting redemptions coming due in the PEPP portfolio)
BOE	BOE total gilt holdings have fallen from a peak of £875bn to £780bn today, and announced in the last monetary policy meeting, that they would increase the pace of quantitative tightening from £80bn to £100bn a year.
US Fed	Continues to sell holdings of US Treasuries and mortgage-backed securities (MBS) at a rate of US\$95 billion per month (o.w. \$60bn treasuries, \$35bn MBS)

Source: Bloomberg Finance L.P.

The pace of QT is likely to pick up in most regions.

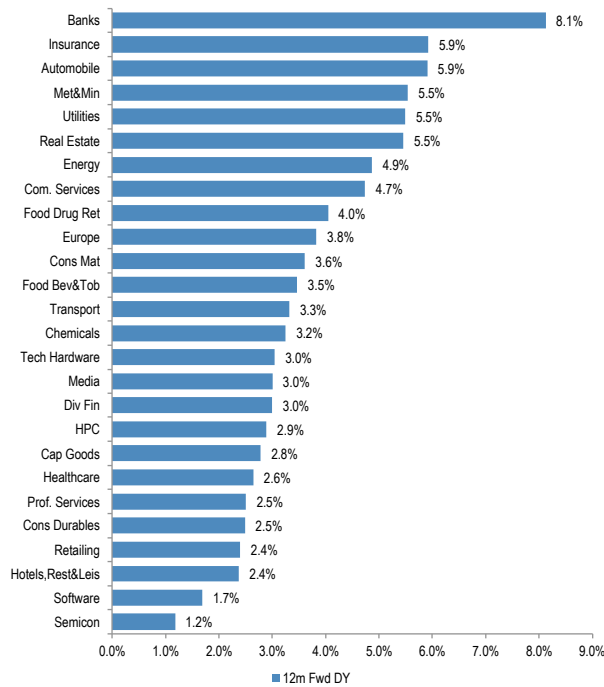
Table 4: Bank Taxes announced in Europe

Region	Financial Impact	Details
Italy	ISP and UCG opt out from paying the tax and will boost capital instead. For BAML, expect ~12% impact on earnings if they decide to pay the tax.	The tax is based on 40% of excess NII with a cap at 0.26% of RWAs, non-tax deductible, with an option to opt out if banks boost non-distributable reserves by 2.5x tax.
Spain	Ranging from ~2-3% for SAN and BBVA to ~10-14% for the domestic banks	The Spanish banking tax is a 4.8% tax on domestic Spanish NII and fees on banking income (insurance income is excluded), on top of existing corporate tax rate for banks at 30% (vs 25% for corporates). The tax is non-tax deductible. Some recent press articles suggest that the tax could potentially be extended.
Sweden	~4-5% net income impact from SEB, SHB and Swedbank	Liabilities linked to the domestic Swedish operations that exceed a set threshold limit set at the start of the fiscal year (2022: SEK150bn, and will increase annually based on an index). All liabilities within a group are included with the exception of intra-group debt, provisions and untaxed reserves, and debt not linked to the Swedish operations-at a tax rate of 0.05% of the tax base for 2022, and 0.06% for 2023 and onwards.
Denmark	~4-5% net income impact from Danske and Jyske	Corporate tax rate effectively increased to 25.2% in 2023 and 26% from 2024 for companies in the financial sector.

Source: J.P. Morgan. European Banks Research

In addition, there is a rising risk from new/extended bank taxes, and pressure from governments to increase deposit remuneration. A number of countries have recently introduced tax measures on the banking sector, including Italy, Spain, Sweden, Denmark, Lithuania, Hungary, among others, with more countries likely to follow suit.

Figure 10: European sectors dividend yield

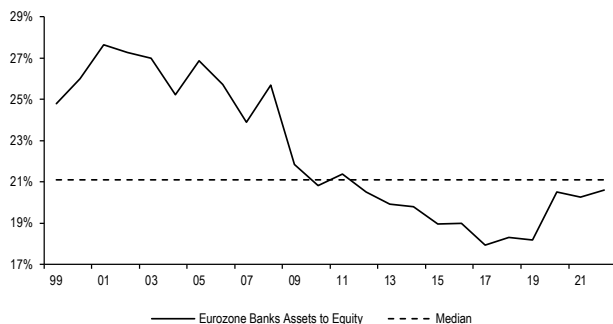


Source: IBES

Total return yield for Banks stocks is the highest among all sectors, with both dividend yield and buybacks yield relatively elevated. However, dividends and buybacks are unlikely to be safe if the credit or macro environment weakens, or if the regulatory scrutiny increases.

**Banks are a beta play on overall activity, and could suffer if the economy enters contraction...**

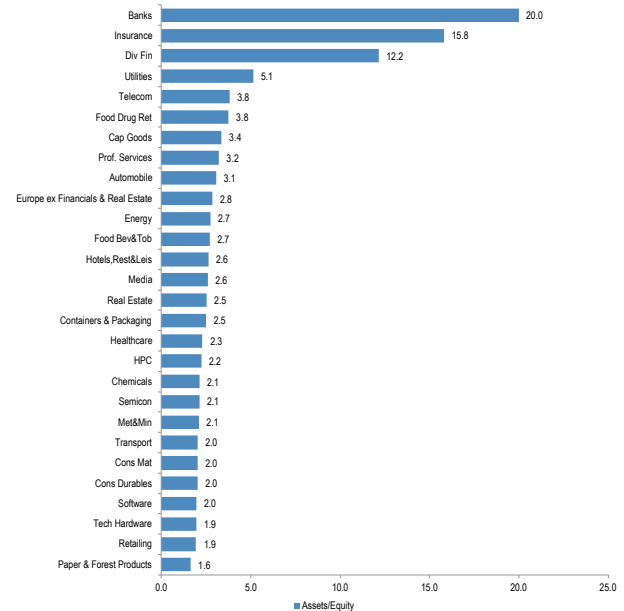
Figure 11: European Banks Asset to Equity



Source: Worldscope

Banks have significantly delevered since GFC, with the leverage ratio currently below the long-term average.

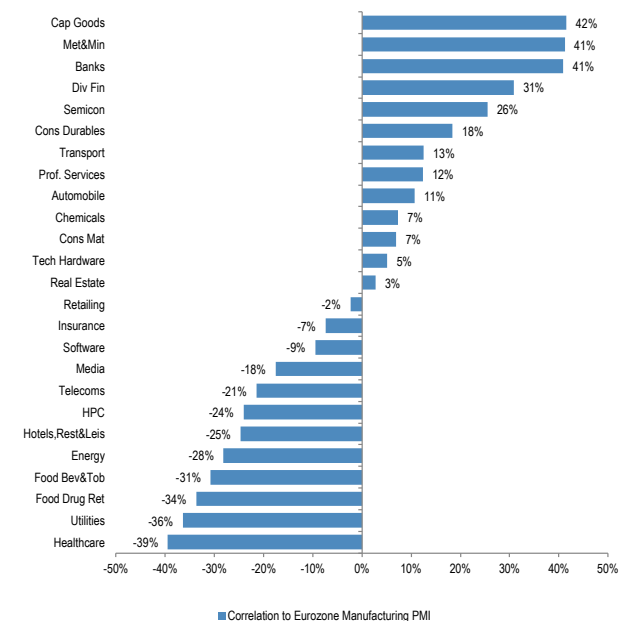
Figure 12: MSCI Europe sectors Asset to Equity



Source: Datastream

Still, at 20x, the leverage ratio for Banks is much higher than for other sectors, putting them at greater risk if the overall macro environment becomes more challenging.

Figure 13: Correlation of Eurozone sectors to Eurozone PMI

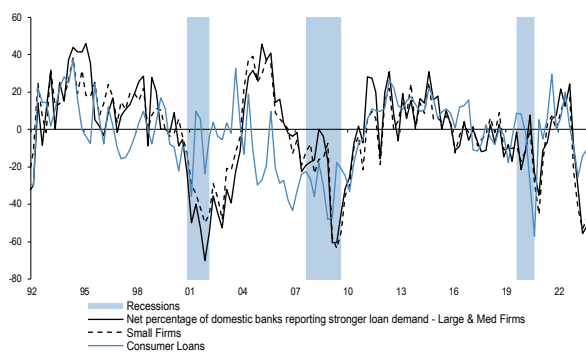


Source: S&P Global, J.P. Morgan

Additionally, Banks display one of the highest positive correlations to PMIs, and are strongly geared to activity momentum. If the economy weakens, the sector is likely to be hurt meaningfully.

...or if credit conditions worsen

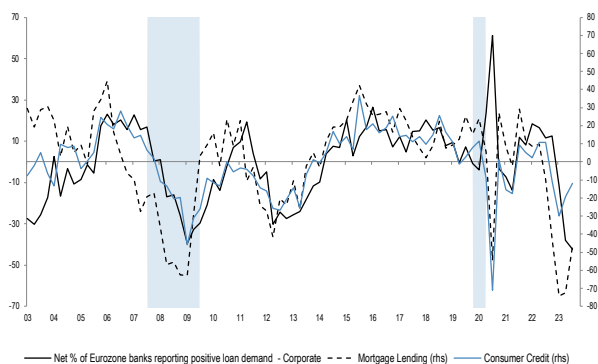
Figure 14: % of US banks reporting stronger loan demand



Source: FRB

Higher rates and restrictive monetary policy have resulted in a sharp decline in loan demand.

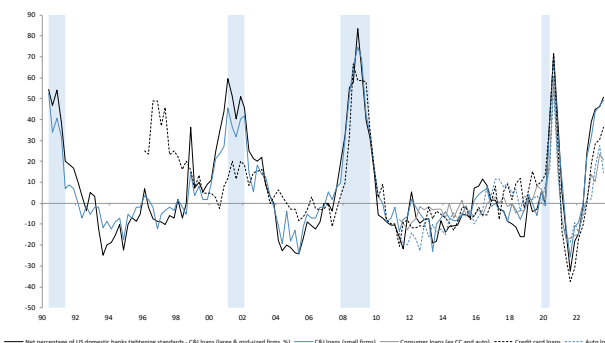
Figure 15: % Eurozone banks reporting positive loan demand



Source: ECB

This is true in Europe, as well.

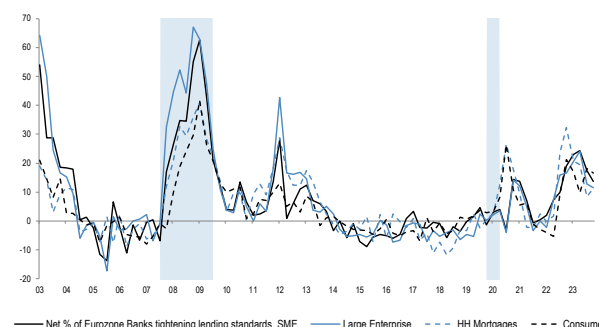
Figure 16: % of US domestic banks tightening lending standards



Source: FRB

Credit standards have tightened.

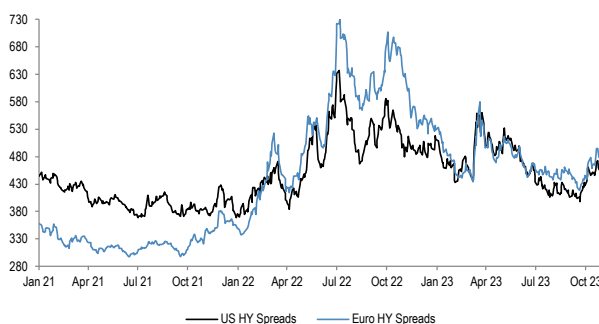
Figure 17: % of Eurozone banks tightening lending standards



Source: J.P. Morgan.

Lending standards are staying tight in Europe, too.

Figure 18: US and Euro HY spreads

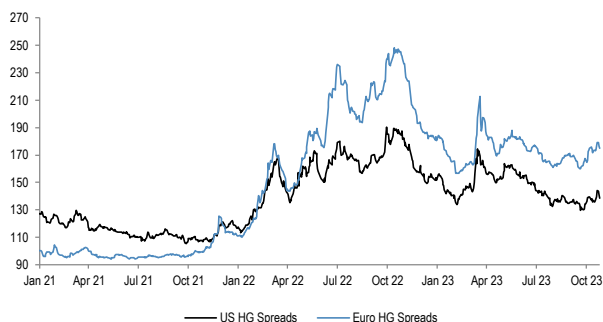


Source: J.P. Morgan.

Credit pricing is relatively benign at present, but is at risk of deteriorating. US and Euro HY spreads have been widening recently.



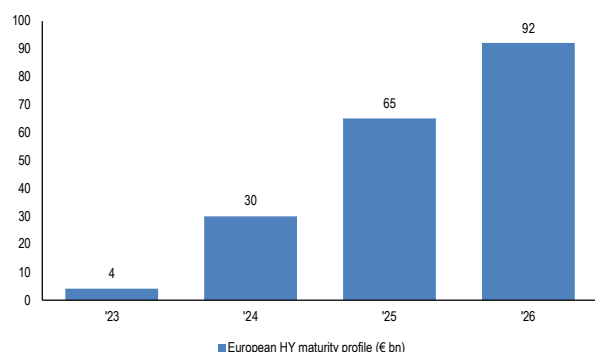
Figure 19: US and Euro HG spreads



Source: J.P. Morgan.

HG spreads could widen, as well.

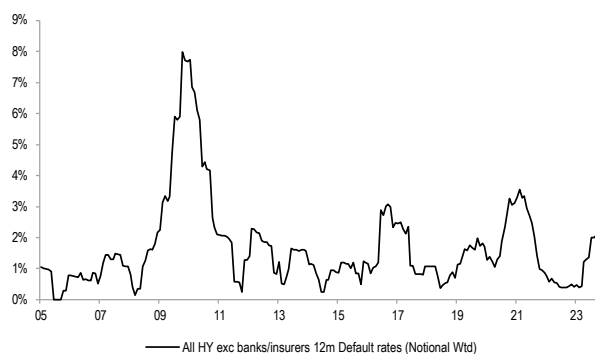
Figure 20: European HY maturity profile



Source: J.P. Morgan Credit Strategy

Credit risks are likely to rise, particularly for Banks with exposure to HY corporates, SMEs and commercial real estate, as refinancing needs are set to increase from next year.

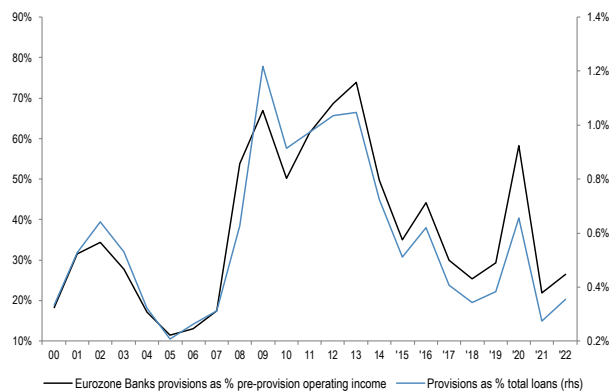
Figure 21: Euro HY default rate



Source: JPM European Credit Strategy

Default rates are picking up.

Figure 22: Eurozone Banks provisions

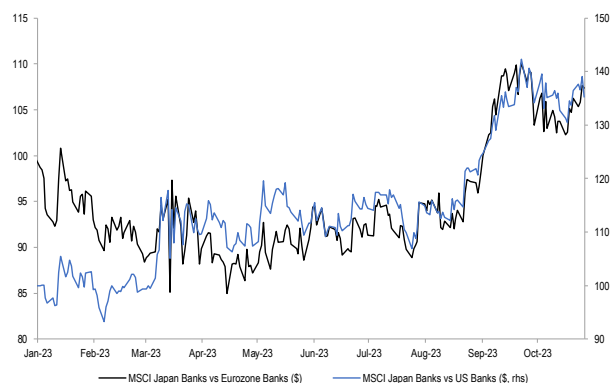


Source: Datastream

Provisioning is likely to rise, as well.

**Regionally, we still have preference for Japanese over US and European Banks**

Figure 23: Japanese vs US Banks and Japanese vs Eurozone Banks ytd



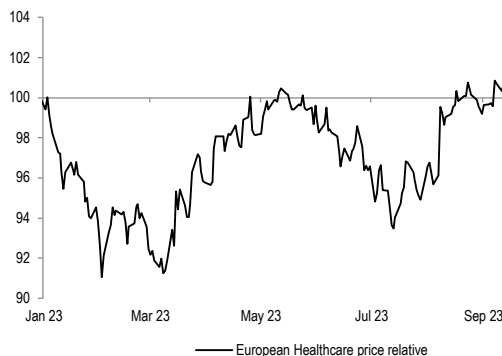
Source: Datastream

Regionally, we are keeping our preference for Japanese Banks vs both US Banks and European Banks.



**We use the funds from the Banks downgrade to add to Healthcare, upgrading the sector from Neutral to OW**

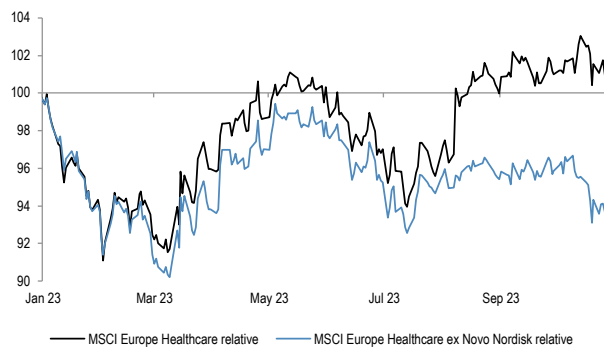
**Figure 24: European Healthcare price relative**



Source: Datastream

European Healthcare sector is down 2% this year vs the broader market.

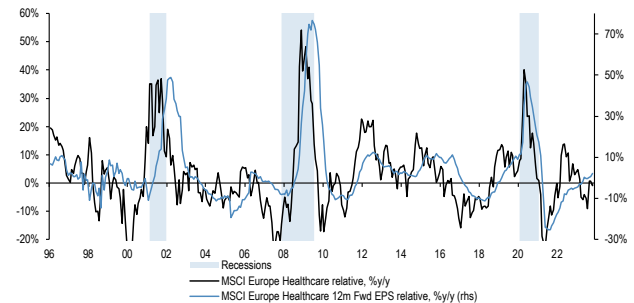
**Figure 25: European Healthcare relative and Healthcare ex Novo Nordisk relative to the market**



Source: Datastream, Market cap relative

The bulk of the sector's performance this year can be attributed to Novo Nordisk, driven by supportive newsflow around its GLP-1 drug. Excluding this stock, the rest of the sector is down 8% ytd.

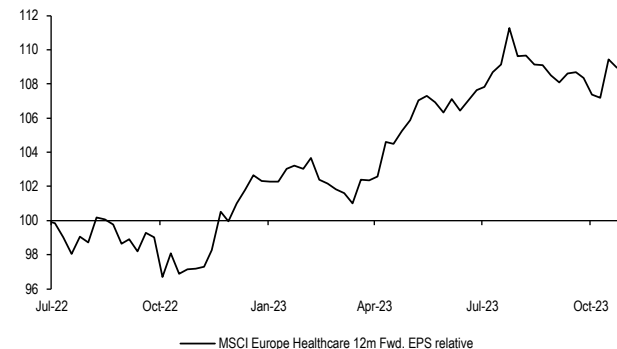
**Figure 26: European Healthcare price relative and EPS relative**



Source: Datastream, IBES

Healthcare is a pure Defensive play, with sector earnings typically more insulated than the broader market during periods of economic contraction.

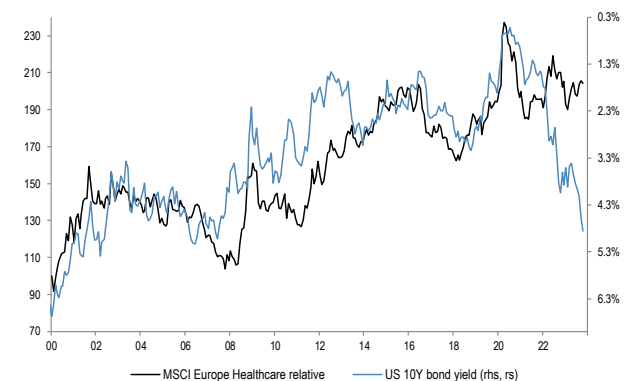
**Figure 27: European Healthcare 12m Fwd. EPS relative**



Source: IBES

Our Healthcare analysts see upside potential to earnings for the sector, with renewal of pipeline newsflow, and patent expiry risk only at the end of the decade.

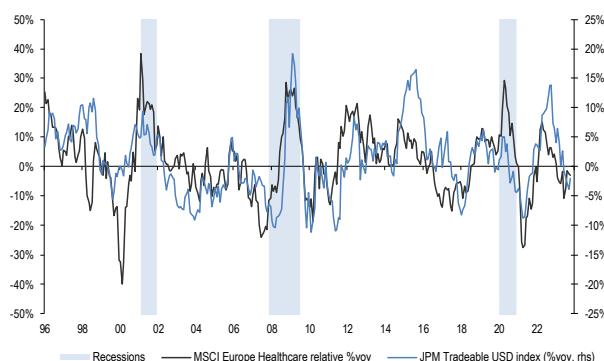
**Figure 28: Healthcare price relative vs US 10 year bond yield**



Source: Datastream

The sector is traditionally a bond-proxy, and should be helped if bond yields peak out.

Figure 29: MSCI Europe Healthcare relative and tradeable USD

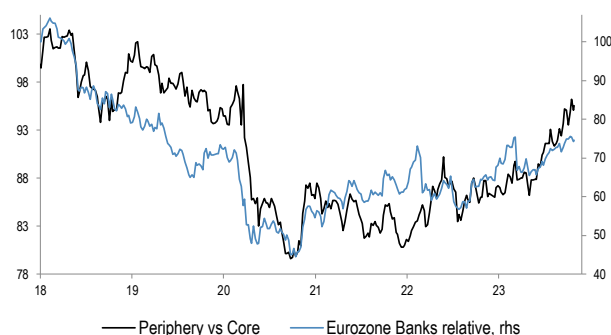


Source: Datastream, Bloomberg Finance L.P.

Importantly, Healthcare has meaningful USD revenue exposure, and is likely to do better if the dollar keeps rising.

**If Banks start to lag, then the periphery could fall behind core markets...**

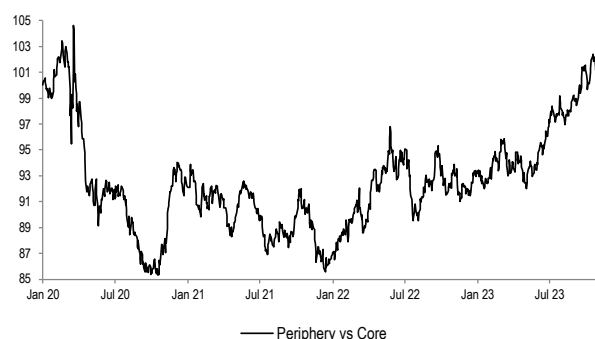
Figure 30: Periphery vs Core and Banks relative



Source: Datastream

Given the higher weight of Banks in Italy and Spain, the fate of the Periphery vs Core performance is closely tied to that of Banks sector performance. If Banks underperform from here, then Periphery is likely to fall, as well.

Figure 31: Periphery vs Core performance since Jan 2020



Source: Datastream

Periphery has done well relative to core markets in the last few years, but could turn, particularly if peripheral spreads widen.

**...within periphery, one could open the Spain vs Italy trade**

Table 5: MSCI Spain and Italy sector compositions

	MSCI Italy	MSCI Spain
Financials	34%	33%
Discretionary	24%	17%
Utilities	18%	24%
Energy	12%	5%
Industrials	6%	9%
Healthcare	3%	1%
Comm. Services	2%	11%
Staples	2%	0%
Materials	-	-
IT	-	-
Real Estate	-	-
Cyclicals	30%	26%
Defensives	25%	36%

Source: Datastream

Within periphery, Spain has a greater tilt towards Defensive sectors, and so is better protected against potentially falling rates and a weakening economy. In addition, Spain has higher exposure to Latam countries - our EM team are OW both Brazil and Mexico.

In Brazil, they expect rate cuts to drive better growth, and look for upgrades to current revenue estimates. Mexico has seen robust EPS growth, driven by stronger US and near-shoring trends. Mexican equities still appear attractive on key valuation metrics. The region is also an attractive carry on the USD-MXN trade – see [report](#).

Figure 32: MSCI Spain relative to MSCI Italy

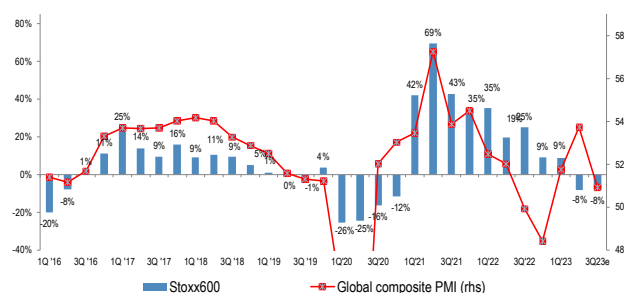


Source: Datastream

Spanish equities have lagged Italian equities since mid-2022, and could rebound from here.

### Earnings results are starting to be more challenging

Figure 33: SXXP quarterly EPS growth and Global composite PMI

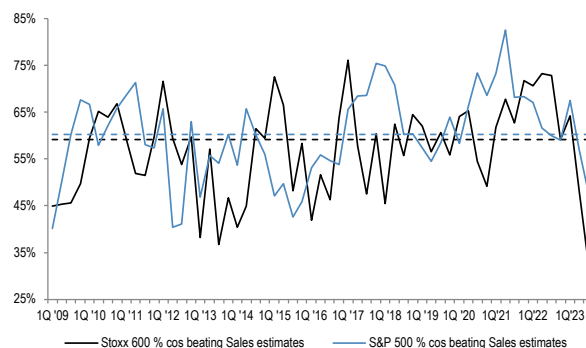


Source: S&P Global, JPMorgan, Bloomberg Finance L.P.

With nearly half the companies having reported so far, earnings delivery has been mixed. In Europe, EPS growth is negative for a second quarter in a row, in line with the more pronounced activity weakness in the region.

There appears to be more profit warnings this quarter compared to average, with several companies flagging lower volumes/demand, deteriorating macro environment and inflation pressure – see Appendix for the full table.

Figure 34: % of companies beating quarterly sales estimates in US and Europe



Source: JPMorgan, Bloomberg Finance L.P.

Notably, top line delivery has been disappointing, particularly in Europe. The proportion of companies beating sales estimates has fallen to the lowest since we started compiling the data more than a decade ago.

In the table below, we outline the important Q3 earnings commentary from key Banking stocks. For those that have not yet reported, we include the earnings preview from our sector analysts.

Table 6: MSCI Europe top 20 Banks Commentary

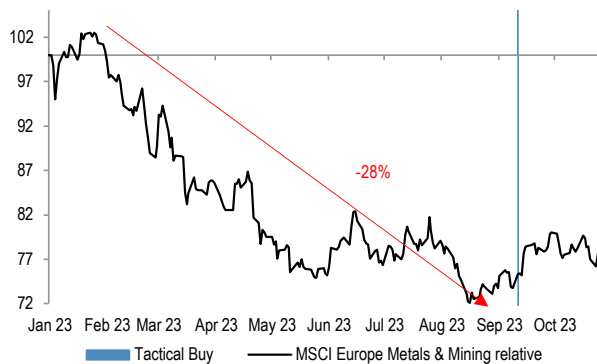
Company Name	Ticker	Weight in Index	JPM Rating	Commentary
HSBC HOLDINGS	HSBA LN	19.0%	N	The focus of results to be on NII momentum and asset quality outlook with China CRE under pressure.
BNP PARIBAS	BNP FP	8.2%	N	While BNP's results were broadly as expected, divisional trends showed weakness in retail-banking operations, particularly in France and Italy, whereas CIB and corporate center showed lower provisions and lower costs.
BANCO SANTANDER	SAN SM	7.6%	N	Banco Santander earnings beat estimates as higher interest rates in Europe and Mexico continued to boost revenue and offset a rise in loan loss charges.
BBVA ARGENTARIA	BBVA SM	6.0%	N	Strong delivery on NII and low CoR in Spain well should bode well for BBVA.
ING GROEP	INGA NA	5.9%	OW	Although the new taxes are yet to be finalized, based on the current proposal, negative impact on earnings is manageable; total revenue will benefit from fee growth recovering.
UNICREDIT	UCG IM	5.4%	OW	UniCredit lifted its full-year revenue target for the third straight quarter, and posted better-than-expected third quarter net income and said it will use a get-out clause to avoid paying the Italian government's bank windfall tax, helping to preserve its plans to return capital to investors and laying the groundwork for peers to follow suit.
INTESA SANPAOLO	ISP IM	4.9%	OW	Intesa Sanpaolo results are expected to be supported by NII with still low deposit beta and benign cost of risks with costs largely in line with expectations.
NORDEA BANK	NDA SS	4.4%	N	Small NII improvement mainly explained by deposit margins, day count and treasury effects and low loan losses are positives, whereas, slightly weaker than expected trading income is a negative.
LLOYDS BANKING GROUP	LLOY LN	4.3%	UW	Lloyds beat Q3 expectations helped by a drop in defaults and higher interest rates, but warned that the benefits of higher rates are starting to wane.
BARCLAYS	BARC LN	3.7%	OW	Barclays lowered its guidance for net interest margin this year to between 3.05% to 3.1% having already cut this guidance in July, as the benefit of higher interest rates start to fade amid competitive environment for UK retail deposits.
STANDARD CHARTERED	STAN LN	2.7%	OW	Standard Chartered PLC's third-quarter underlying net profit dropped 30%, weighed by higher credit impairment and operating expenses as the bank suffered a blow of almost \$900 billion because of its exposure to China.
SKANDINAVISKA				
ENSKILDA BANKEN A	SEBA SS	2.3%	UW	SEB beat analysts' estimates for third quarter net income supported by low loan loss provisions and strong trading income.
DNB BANK	DNB NO	2.3%	N	Norway's largest lender was unable to meet net interest expectations on repricing lag; asset quality is showing some signs of normalization.
SOCIETE GENERALE	GLE FP	2.2%	N	Below consensus net operating profit expectation, driven by lower revenues in French retail (excluding insurance) and Financial services to corporates.
NATWEST GROUP	NWGL LN	2.0%	N	Natwest warned that higher interest rates were leading to a shift in deposits. They reported weaker than expected NIM, and lowered FY NIM guidance
CAIXABANK	CABK SM	2.0%	N	Strong delivery on NII and low CoR in Spain well should bode well for Caixa Bank.
DANSKE BANK	DANSKE DC	2.0%	N	Question is how long the lender can sustain high growth trends in net interest income; expect credit losses to remain low.
SWEDBANK A	SS	1.9%	N	Net interest income continued to soar in the third quarter, but the growth rate was lowest in a year as the rates boost of the recent years is tapering off.
KBC GROUP	KBC BB	1.9%	N	Expect a larger margin impact from deposit outflows than previously assumed; fee income should be lower reflecting lower markets and AUM in 3Q.
CREDIT AGRICOLE	ACA FP	1.8%	UW	Pretax profit estimate is below expectations mainly due to lower revenue in Asset Management, Insurance and French Retail, only offset by lower costs and slightly better provisions.

Source: Bloomberg Finance L.P., Datastream

Q3 earnings for Banks were mixed so far, with a number of banks flagging risk to NII, and a benefit from high rates starting to wane.

**In terms of positioning, we remain cautious on market direction, and keep a barbell of commodities...**

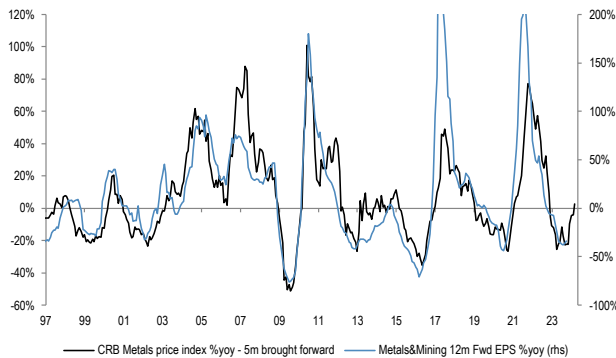
Figure 35: European Metals & Mining relative



Source: Datastream

We have last month advised that Miners could tactically trade better, after being cautious on the sector this year, given the 30% underperformance.

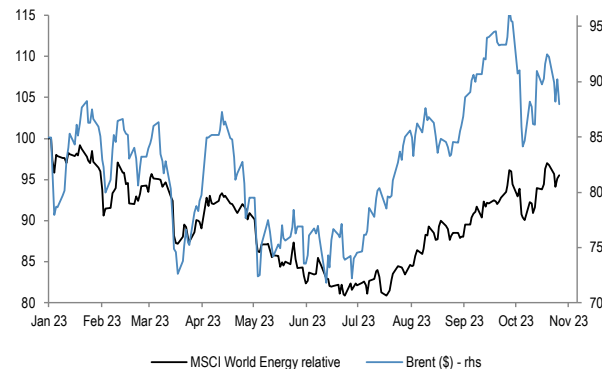
Figure 36: Mining EPS and metal prices



Source: IBES

Mining stocks are likely to see earnings upgrades come through, particularly if commodity prices stay supported. China stimulus is coming through.

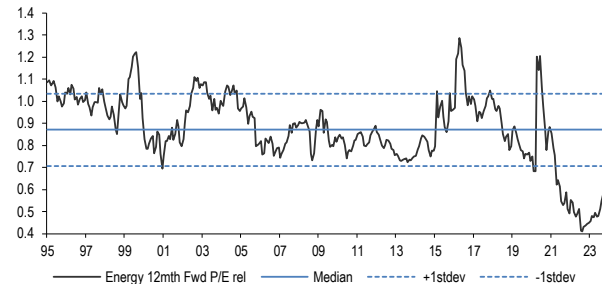
Figure 37: Energy sector relative performance vs oil price



Source: Datastream

Energy sector remains our OW, it is a good hedge against geopolitical risks increasing.

Figure 38: MSCI Europe Energy 12m Fwd. P/E relative

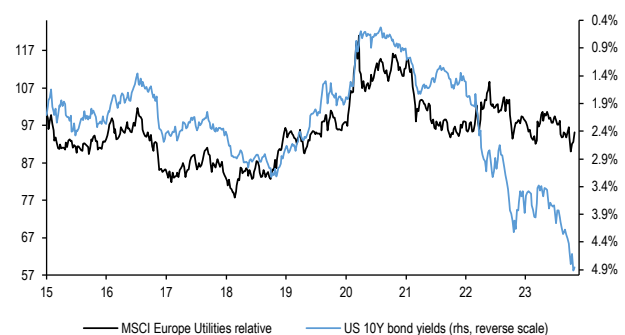


Source: Datastream

The sector has re-rated recently, but still trades outright cheap on P/E metric.

**...bond proxies such as Utilities and Staples should be relative winners, too**

Figure 39: European Utilities relative vs US 10Y bond yield

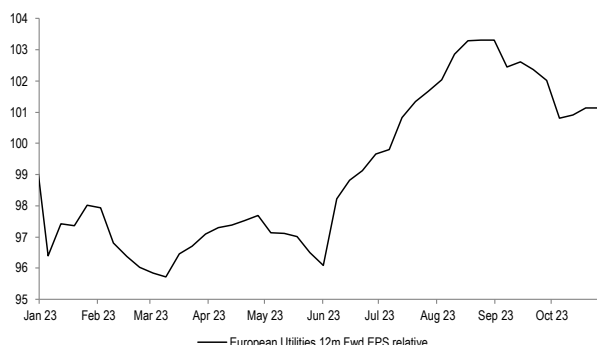


Source: Datastream, Bloomberg Finance L.P.

Pure Defensive plays like Utilities are also likely to fare better in an environment of potentially peaking bond yields and more challenging earnings.

Staples are also a bond-proxy, potentially helped by peaking rates, the group is no longer as expensive as before, and their margins are likely to stabilize next year.

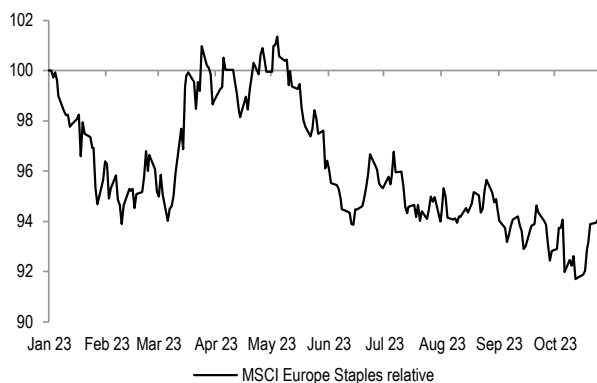
Figure 40: European Utilities 12m Fwd. EPS relative



Source: IBES

Earnings for Utilities have seen strong positive momentum. We believe high power prices will underpin further earnings support for the sector, with most regulatory headwinds now behind us, too.

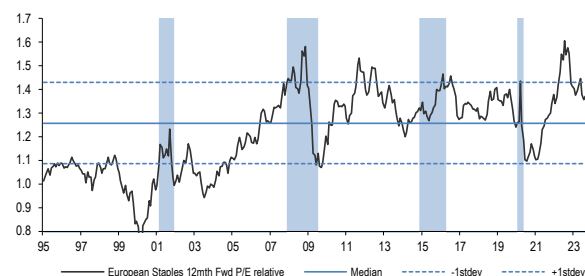
Figure 41: European Staples price relative ytd



Source: Datastream

Staples could look more interesting here.

Figure 42: MSCI Europe Staples 12m Fwd. P/E relative



Source: Datastream

## Appendix

Table 7: Recent profit warnings

Company Name	Company Ticker	Commentary	Date	1Day Perf relative to market, %	Sector	MV(in \$bn)
RTX CORP	RTX US	-	11 Sep	-8.6%	Industrials	114.3
SIGHT SCIENCES INC	SGHT US	Sight Sciences falls 21% postmarket after the maker of a glaucoma surgery device cut its year revenue outlook, saying uncertainty about the future of Medicare coverage for the company's products is hurting demand.	11 Sep	5.4%	Health Care	0.1
AMERICAN AIRLINES GROUP INC	AAL US	American Air Cuts Earnings Outlook on Higher Fuel Cost	13 Sep	-5.8%	Industrials	7.2
THG PLC	THG LN	lowered its sales forecast, held back by inflationary pressures and its beauty division.	14 Sep	-23.3%	Consumer Discretionary	1.0
DELTA AIR LINES INC	DAL US	Delta Air Lines Cuts 3Q Adjusted EPS Forecast	14 Sep	-1.4%	Industrials	20.3
NUCOR CORP	NUE US	Steelmaker blames lower pricing and volumes for downbeat earnings outlook	15 Sep	-4.9%	Materials	36.6
BITTUM OYJ	BITTI FH	Bitium lowers its financial outlook for 2023, citing slower pace and lower volumes of deliveries of its tactical communication products and security solutions from the defense and security business unit.	15 Sep	-6.2%	Information Technology	0.2
SOCIETE GENERALE SA	GLE FP	The French bank on Monday set a goal for annual revenue growth of between zero and 2% over the next three years, down from at least 3%, and slightly lowered the target for return on tangible equity that some analysts had expected to be lifted.	18 Sep	-10.9%	Financials	17.9
NORDIC SEMICONDUCTOR ASA	NOD NO	The chipmaker reduced quarterly revenue and margin forecasts, citing weak demand across its core markets and no signs of improvement amid an industry downturn.	18 Sep	-8.8%	Information Technology	1.5
S4 CAPITAL PLC	SFOR LN	it said it is maintaining a disciplined cost-management approach.	18 Sep	-20.9%	Communication Services	0.4
KINGFISHER PLC	KGF LN	Kingfisher Warns on Profit as Polish, French Shoppers Cut Back	19 Sep	-12.3%	Consumer Discretionary	4.6
SMCP SA	SMCP FP	Cut its 2023 guidance, citing a slowdown in Europe and lower-than-expected Chinese consumption.	19 Sep	-29.0%	Consumer Discretionary	0.3
NAKED WINES PLC	WINE LN	Profit warned due to oversupply in the sector	19 Sep	-11.2%	Consumer Staples	0.0
NORTHCODERS GROUP PLC	CODE LN	Profit warned due to cautious market conditions	19 Sep	-32.6%	Consumer Discretionary	0.0
QUIZ PLC	QUIZ LN	Profit warned due to cost of living squeeze amid higher interest rates	19 Sep	-31.5%	Consumer Discretionary	0.0
SAFESTYLE UK PLC	SFE LN	Profit warned due to ongoing cost inflation and low consumer confidence	19 Sep	-47.1%	Industrials	0.0
SALZGITTER AG	SZG GY	Profit warned due to continued weakness in steel	19 Sep	0.0%	Materials	1.5
EQTEC PLC	EQT LN	Eqtec lowers revenue forecast as files legal claim against Logik	20 Sep	-17.1%	Industrials	0.0
HEXATRONIC GROUP AB	HTRO SS	Hexatronic shares slide as much as 12% to the lowest level in more than two years after the Swedish fiber-optic cable manufacturer said it expects to record negative organic revenue growth in second half of 2023.	22 Sep	-10.9%	Industrials	0.7
ENTAIN PLC	ENT LN	Entain shares drop as much as 5.4% to the lowest since July 2022 after the gambling company said net gaming revenue was "softer than anticipated" after the summer, and noted a simplification of group structures to reduce costs.	25 Sep	-12.3%	Consumer Discretionary	7.1
ASOS PLC	ASC LN	Asos Plc said cash flow is weaker than expected amid falling sales in the fiscal fourth quarter as the British online fashion retailer struggles to turn around its business.	26 Sep	-1.5%	Consumer Discretionary	0.6
HENNES & MAURITZ AB-B SHS	HMB SS	Hennes & Mauritz AB warned that revenue is dropping this month due to an abnormally warm start to autumn in Europe as well as the absence of sales from Russia.	27 Sep	3.6%	Consumer Discretionary	21.4
RYANAIR HOLDINGS PLC	RYA ID	Ryanair Holdings Plc Chief Executive Officer Michael O'Leary says discount specialist trying to carry 25% more passengers this winter than pre-Covid, though might have to use lower fares to stimulate demand.	27 Sep	1.3%	Industrials	17.1
WORKDAY INC-CLASS A	WDAY US	Sales outlook cut	28 Sep	-9.1%	Information Technology	54.2
888 HOLDINGS PLC	888 LN	William Hill Owner Cuts Earnings Outlook as Sports Bettors Win	28 Sep	-11.7%	Consumer Discretionary	0.4
PEPCO GROUP NV	PCO PW	"In addition, the timing of our autumn/winter collection landing in stores has coincided with persistent record warm weather in our core CEE markets, resulting in weaker customer demand at this time."	28 Sep	-20.8%	Consumer Discretionary	2.4
PHILIP MORRIS INTERNATIONAL	PM US	-	28 Sep	2.4%	Consumer Staples	139.5
JETBLUE AIRWAYS CORP	JBLU US	JetBlue Airways warned of worse-than-expected September bookings and said disruptions tied to air traffic control issues and weather have been greater than expected.	28 Sep	2.1%	Industrials	1.4
BOOHOO GROUP PLC	BOO LN	Boohoo Group Plc lowered its revenue forecast as consumer demand has been sluggish and the fast fashion retailer cuts prices to attract cash-strapped shoppers.	03 Oct	-2.2%	Consumer Discretionary	0.5
ALSTOM	ALO FP	The biggest impact was from much higher inventory levels, after the company hiked output amid tight supply chains to fill its order backlog and avoid production disruption and delivery delays.	05 Oct	-37.9%	Industrials	4.8
NORSK HYDRO ASA	NHY NO	CO2 compensation to be lower by NOK1 billion than previously expected	06 Oct	-2.9%	Materials	11.1
EUROAPI SASU	EAPI FP	Profit warned due to pricing pressures and destocking	09 Oct	0.8%	Health Care	0.5
MIND GYM LTD	MIND LN	Profit warned over missing market expectations that clients are deferring training and commitment to new spend on back on inflationary pressures	09 Oct	-37.8%	Industrials	0.0
CRODA INTERNATIONAL PLC	CRDA LN	Profit warned due to weaker demand and destocking	09 Oct	-7.3%	Materials	7.1
MAISONS DU MONDE SA	MDM FP	Low consumer confidence and reduced discretionary spending	10 Oct	-1.0%	Consumer Discretionary	0.2
ENERAQUA TECHNOLOGIES PLC	ETP LN	Profit warned over number of customers slowing spending and delaying projects to fiscal 2025	11 Oct	-58.2%	Industrials	0.0
TRAVIS PERKINS PLC	TPK LN	Travis Perkins warned that falling prices of commodity products have hurt gross profit and narrowed its profit margins	11 Oct	-6.0%	Industrials	1.8
FORTERRA PLC	FORT LN	Market demand conditions is falling	11 Oct	-5.0%	Materials	0.3
PAGEGROUP PLC	PAGE LN	Job market is tough	11 Oct	-2.2%	Industrials	1.5
WATKIN JONES PLC	WJG LN	Profit warned due to higher costs	11 Oct	-7.5%	Real Estate	0.1
SIG PLC	SHI LN	Profit warned due to further softening in consumer demand	12 Oct	-9.1%	Industrials	0.4
HERSHEY CO/THE	HSY US	Hershey to see unfavourable 2024 amid slowing demand, tough competition	12 Oct	-1.5%	Consumer Staples	38.7
MOBICO GROUP PLC	MCG LN	Mobico slumps on profit warning because of higher expenses, especially recruitment and examination costs	12 Oct	-27.9%	Industrials	0.4
SARTORIUS AG-	SRT3 GY	Lower volume expectations	13 Oct	-12.3%	Health Care	15.9



VORZUG							
WULFF-GROUP OYJ	WUF1V FH	Profit warned due to tightening monetary cycle	16 Oct	0.8%	Consumer Discretionary	0.0	
CHRISTIE GROUP PLC	CTG LN	-	13 Oct	-1.5%	Industrials	0.0	
ERICSSON LM-B SHS	ERICB SS	Profit warned due to macroeconomic uncertainty in 2024	17 Oct	-5.8%	Information Technology	14.9	
BELLWAY PLC	BWY LN	Profit warned due to lower volume output and pressures of cost inflation	17 Oct	2.7%	Consumer Discretionary	2.9	
ESKER SA	ALESK FP	Esker falls 6% on profit margin, and may be hurt because of higher commissions paid to sales people for new contract wins	18 Oct	-1.2%	Information Technology	0.8	
PONSSE OYJ	PON1V FH	Profit warned due to weak economic cycle and persistent inflation.	18 Oct	1.6%	Industrials	0.8	
RAUTE OYJ-A SHS	RAUTE FH	Profit warned due to slower than expected recovery	19 Oct	-1.1%	Industrials	0.1	
COMET HOLDING AG-REG	COTN SW	Profit warned due to later than expected recovery of semis business	19 Oct	-2.1%	Information Technology	1.5	
EXEL COMPOSITES OYJ	EXL1V FH	Profit warned because of challenging market environment and softer demand	19 Oct	-2.3%	Industrials	0.0	
RENTOKIL INITIAL PLC	RTO LN	Rentokil Initial warned of weakness saying margins were expected to come down, because of softer demand in North America	19 Oct	-17.5%	Industrials	12.4	
GJENSIDIGE FORSIKRING ASA	GJF NO	Severe weather events and one off expenses in 3Q	20 Oct	6.0%	Financials	7.4	
HUSQVARNA AB-B SHS	HUSQB SS	Weaker market situation with lower user end demand	20 Oct	-6.6%	Industrials	3.7	
WORLDLINE SA	WLN FP	Shares of Wordline were cut in half, after the company profit warned blaming a deteriorating environment in Germany	25 Oct	-59.3%	Financials	3.2	
FORBO HOLDING AG-REG	FORN SW	Forbo shares slump as the company profit warns citing negative currency and macroeconomic conditions	25 Oct	-2.2%	Industrials	1.6	
CAB PAYMENTS HOLDINGS PLC	CABP LN	CAB payments suffers shares sell-off after profit warning because of volatility in African currencies were hurting volumes and squeezing margins	25 Oct	-18.1%	Financials	0.2	
SITOWISE GROUP PLC	SITOWS FH	Profit warned due to weaker market outlook in Buildings business area	25 Oct	-2.0%	Industrials	0.1	
META PLATFORMS INC-CLASS A	META US	Warned on revenue outlook due to economic uncertainty and softer advertising spending	26 Oct	-3.4%	Communication Services	741.6	

Source: Bloomberg Finance L.P.

## Equity Strategy Key Calls and Drivers

Despite recent weakness, where SPX RSI turned technically oversold, we believe that the equity risk-reward remains challenging. Divergences between softer activity momentum and the elevated equity prices, as well as market internals, that opened up in the summer, are starting to close, but there is more to go. The PMI rebound that many were hoping for, the call that the weakness in manufacturing will end and join the more resilient services, remains elusive. In addition, real rates upmove is pressuring multiples, and this is even taking out Tech. Finally, Brent and USD rally should be seen as concerning for stocks. Most of Brent upmove is supply driven, and could lead to weaker final demand. Corporates might struggle to pass on rising input costs this time, in contrast to '21-'22. Historically, strengthening USD was almost always met with risk-off in equities. We do not think that bond yields will be able to keep moving up for too much longer, and will likely ultimately fall, and that is precisely because of the “higher for longer” narrative by the Fed. Q4 could end up a very good time to lock in the long duration trade for the next 12 months. SX5E has lagged the US since May, coincident with our downgrade to UW – stay short. Even as we remain bearish on China over the medium term, a lot has happened, MSCI China is down more than 20% since January, and one should not be tactically pressing the shorts into year end, in our view. We stay OW Energy. We were OW Growth vs Value this year, but the Tech run is becoming heavy, so we think that pure Defensives look the best into year end.

**Table 8: J.P. Morgan Equity Strategy — Factors driving our medium-term views**

Driver	Impact	Our Core Working Assumptions	Recent Developments
Global Growth	Neutral	At risk of weakening as consumer strength wanes	Global composite PMI is at 50.5
European Growth	Negative	Manufacturing and services are converging on the downside; industry data stays weak	
Monetary Policy	Neutral	Fed is unlikely to pivot, unless the macro backdrop deteriorates meaningfully	
Currency	Neutral	USD could strengthen further	
Earnings	Negative	Margin squeeze and negative operating leverage coming up	2023 and 2024 full year earnings projections are not moving higher
Valuations	Negative	US in particular is unattractive vs bond yields, but Europe screens better	MSCI Europe on 11.6x Fwd P/E
Technicals	Negative	Sentiment and positioning are no longer as stretched	RSIs close to oversold territory, Vix is not up much yet

Source: J.P. Morgan estimates

**Table 9: Base Case and Risks**

Scenario	Assumption
Upside scenario	No further hawkish tilt by the Fed. No landing
Base-case scenario	Inflation to fall further, risk of downturn still elevated. Earnings downside from here
Downside scenario	Further Fed tightening and global recession to become a base case again

Source: J.P. Morgan estimates.

**Table 10: Index targets**

	Dec '23 Target	26-Oct-23	% upside
MSCI EMU	256	243	5%
FTSE 100	8,150	7,355	11%
MSCI EUROPE	1,880	1,753	7%
DJ EURO STOXX 50	4,150	4,049	2%
DJ STOXX 600 E	465	433	7%

Source: J.P. Morgan.

**Table 11: Key Global sector calls**

Overweight	Neutral	Underweight
Utilities	Technology	Capital Goods ex A&D
Insurance	Discretionary	Chemicals
Staples	Mining	Autos
Energy		Retail

Source: J.P. Morgan

**Table 12: J.P. Morgan Equity Strategy — Key sector calls\***

Sector	Recommendations	Key Drivers
Utilities	Overweight	Sector should see less regulatory uncertainty this year; resilient earnings, peaking bond yields are supports
Staples	Overweight	Sector is one of the best performers around the last Fed hike in the cycle, lower bond yields and better relative EPS momentum should further support
Autos	Underweight	Pricing power to weaken, consumer to slow down
Capital Goods ex A&D	Underweight	Sector trades expensive, on peak margins

Source: J.P. Morgan estimates. \* Please see the last page for the full list of our calls and sector allocation.

**Table 13: J.P. Morgan Equity Strategy — Key regional calls**

Region	Recommendations	J.P. Morgan Views
EM	Neutral	China tactical chance for a bounce, but structural bearish call remains
DM	Neutral	
US	Underweight	Expensive, with earnings risk. However, if markets to weaken into year end, US could fare relatively better vs Eurozone
Japan	Overweight	Japan is attractively priced; diverging policy path and TSE reforms are tailwinds
Eurozone	Underweight	Growth-Policy trade-off likely to deteriorate further; Eurozone is typically a high beta on the way down
UK	Overweight	Valuations still look very attractive, low beta with the highest regional dividend yield

Source: J.P. Morgan estimates

## Top Picks

Table 14: J.P. Morgan European Strategy: Top European picks

Name	Ticker	Sector	Rating	Price	Currency	Market Cap (€ Bn)	EPS Growth			Dividend Yield		12m Fwd P/E		Performance	
							22e	23e	24e	23e	Current	10Y Median	% Premium	-3m	-12m
TOTALENERGIES	TTE FP	Energy	OW	63	E	152.8	109%	-29%	-1%	4.7%	6.8	10.6	-36%	21%	20%
SHELL	SHEL LN	Energy	OW	32	E	209.0	116%	-22%	3%	4.2%	7.9	11.2	-29%	17%	23%
BASF	BAS GR	Materials	OW	41	E	36.7	3%	-48%	21%	8.0%	9.9	13.1	-24%	-12%	-8%
SOLVAY	SOLB BB	Materials	OW	99	E	10.4	67%	-18%	-7%	4.2%	7.6	12.3	-39%	-3%	12%
ANGLO AMERICAN	AAL LN	Materials	OW	2156	£	30.3	-31%	-43%	13%	4.4%	8.6	9.7	-12%	-6%	-18%
SAINT GOBAIN	SGO FP	Industrials	OW	50	E	25.4	21%	-5%	5%	4.1%	7.9	12.7	-38%	-13%	27%
VINCI	DG FP	Industrials	OW	101	E	60.1	66%	9%	8%	4.4%	11.7	15.1	-23%	-6%	16%
ATLAS COPCO A	ATCOA SS	Industrials	OW	143	SK	58.2	26%	19%	4%	1.8%	24.0	21.4	12%	-2%	31%
REXEL	RXL FP	Industrials	OW	20	E	6.0	59%	-12%	0%	5.8%	7.5	11.7	-36%	-11%	22%
DSV	DSV DC	Industrials	OW	1131	DK	33.2	60%	-27%	1%	0.7%	18.9	21.9	-14%	-23%	19%
AIRBUS	AIR FP	Industrials	OW	124	E	97.9	21%	-3%	21%	1.6%	19.1	18.1	5%	-8%	23%
BAE SYSTEMS	BA/ LN	Industrials	OW	1041	£	36.2	17%	12%	8%	2.9%	15.7	12.2	29%	12%	29%
DR ING HC F PORSCHE PREF.	P911 GR	Discretionary	OW	91	E	82.1	-	8%	7%	2.5%	14.6	18.5	-21%	-19%	-
RENAULT	RNO FP	Discretionary	OW	33	E	9.9	-138%	-	-3%	4.1%	2.6	5.5	-52%	-14%	4%
MERCEDES-BENZ GROUP N	MBG GR	Discretionary	OW	63	E	67.2	36%	-4%	-2%	8.3%	4.9	7.5	-34%	-12%	10%
INDITEX	ITX SM	Discretionary	OW	34	E	105.8	189%	27%	27%	-	19.1	24.7	-23%	-1%	49%
LVMH	MC FP	Discretionary	OW	671	E	336.7	17%	14%	7%	2.0%	19.9	21.7	-8%	-21%	7%
WHITBREAD	WTB LN	Discretionary	OW	3341	£	7.4	-	-	31%	1.5%	15.2	18.6	-18%	-2%	31%
B&M EUROPEAN VAL.RET.	BME LN	Discretionary	UW	554	£	6.4	-5%	-12%	3%	2.6%	14.3	16.8	-15%	-1%	80%
TESCO	TSCO LN	Staples	N	274	£	22.3	81%	0%	7%	4.0%	11.2	13.6	-17%	7%	34%
KONINKLIJKE AHOLD DELHAIZE	AD NA	Staples	UW	28	E	26.4	16%	-2%	7%	4.0%	10.4	13.2	-21%	-11%	-1%
ANHEUSER-BUSCH INBEV	ABI BB	Staples	OW	51	E	102.1	13%	-6%	16%	2.0%	15.7	19.5	-20%	-3%	8%
DANONE	BN FP	Staples	OW	54	E	36.7	4%	1%	5%	3.8%	15.2	17.3	-12%	-3%	12%
NESTLE 'N'	NESN SW	Staples	OW	99	SF	279.3	9%	3%	7%	3.1%	18.9	21.4	-12%	-6%	-7%
ASTRAZENECA	AZN LN	Health Care	OW	10488	£	186.2	26%	10%	15%	2.4%	15.6	17.8	-12%	0%	7%
NOVO NORDISK 'B'	NOVOB DC	Health Care	OW	684	DK	413.4	18%	48%	20%	1.3%	32.8	22.2	47%	29%	71%
SIEMENS HEALTHINEERS	SHL GR	Health Care	OW	47	E	51.4	13%	-14%	17%	1.9%	19.9	22.5	-12%	-9%	4%
UBS GROUP	UBSG SW	Financials	OW	22	SF	79.6	9%	-44%	65%	2.4%	13.2	10.4	27%	18%	46%
ING GROEP	INGA NA	Financials	OW	12	E	44.8	-18%	90%	-1%	8.2%	6.4	9.2	-30%	-5%	30%
LONDON STOCK EXCHANGE GROUP	LSEG LN	Financials	OW	8226	£	51.0	10%	4%	12%	1.4%	22.8	22.3	2%	-2%	10%
AMUNDI (WI)	AMUN FP	Financials	OW	51	E	10.4	-11%	4%	3%	8.0%	8.3	12.8	-35%	-11%	15%
SWISS RE	SREN SW	Financials	OW	98	SF	33.1	-67%	578%	15%	6.3%	9.1	10.1	-10%	8%	32%
PRUDENTIAL	PRU LN	Financials	OW	860	£	27.1	-1%	-7%	18%	1.9%	9.9	11.7	-15%	-19%	-4%
SAP	SAP GR	IT	OW	126	E	154.5	-40%	27%	19%	1.7%	21.3	19.7	8%	-1%	42%
ASML HOLDING	ASML NA	IT	OW	563	E	226.8	-1%	38%	3%	1.2%	28.2	26.2	8%	-14%	29%
ADYEN	ADYEN NA	Financials	OW	699	E	21.7	19%	9%	23%	0.0%	29.6	87.1	-66%	-55%	-47%
BT GROUP	BT/A LN	Telecoms	OW	116	£	13.2	6%	9%	-15%	6.7%	6.3	9.2	-31%	-8%	-9%
DEUTSCHE TELEKOM	DTE GR	Telecoms	OW	20	E	100.6	50%	-8%	11%	3.8%	11.1	14.4	-23%	4%	11%
INFRASTRUTTURE WIRELESS ITALIANE SPA NPV	INW IM	Telecoms	OW	10	E	9.9	54%	24%	19%	4.4%	23.6	28.3	-16%	-12%	23%
RELX	REL LN	Industrials	OW	2880	£	62.3	17%	10%	10%	2.0%	23.7	19.1	24%	12%	30%
PEARSON	PSO LN	Discretionary	OW	908	£	7.4	49%	11%	12%	2.5%	14.6	15.1	-3%	5%	2%
DELIVERY HERO	DHER GR	Discretionary	OW	25	E	6.6	-	-	-	0.0%	-12.1	-29.1	-	-40%	-30%
ENGIE	ENGI FP	Utilities	OW	15	E	36.2	74%	-12%	-14%	8.9%	8.3	12.3	-33%	-1%	21%
RWE	RWE GR	Utilities	OW	34	E	25.3	102%	3%	-34%	2.9%	9.6	13.0	-26%	-13%	-10%
SEGRO	SGRO LN	Real Estate	OW	708	£	10.0	7%	4%	8%	3.9%	20.7	25.3	-18%	-11%	-1%
VONOVIA	VNA GR	Real Estate	OW	21	E	16.6	3%	-2%	-2%	6.4%	9.6	19.3	-50%	-3%	0%

Source: Datastream, MSCI, IBES, J.P. Morgan, Prices and Valuations as of COB 26<sup>th</sup> Oct, 2023. Past performance is not indicative of future returns.

Please see the most recent company-specific research published by J.P. Morgan for an analysis of valuation methodology and risks on companies recommended in this report. Research is available at <http://www.jpmorganmarkets.com>, or you can contact the covering analyst or your J.P. Morgan representative.

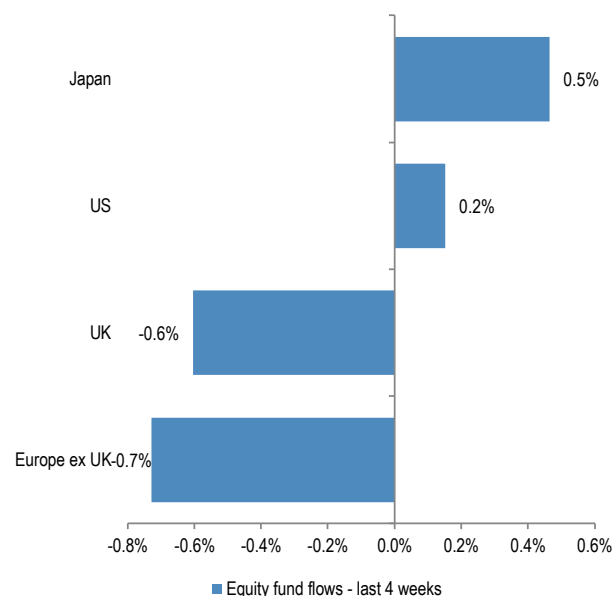
## Equity Flows Snapshot

Table 15: DM Equity Fund Flows Summary

	Regional equity fund flows									
	\$mn					% AUM				
	1w	1m	3m	YTD	12m	1w	1m	3m	YTD	12m
Europe ex UK	-372	-2,226	-4,332	-10,107	-15,995	-0.1%	-0.7%	-1.4%	-3.6%	-6.9%
UK	-503	-1,611	-7,564	-24,589	-31,244	-0.2%	-0.6%	-2.8%	-9.1%	-14.2%
US	349	13,219	19,417	5,065	21,089	0.0%	0.2%	0.2%	0.1%	0.3%
Japan	-902	3,380	9,188	11,834	13,256	-0.1%	0.5%	1.3%	1.9%	2.3%

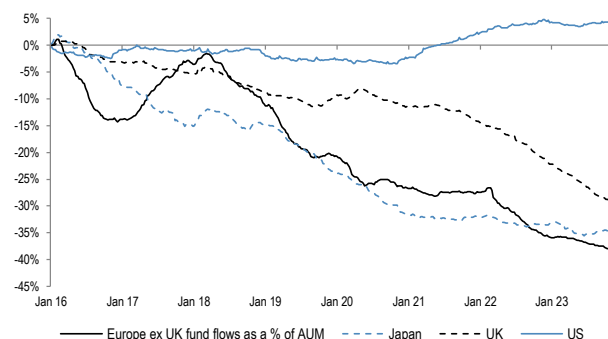
Source: EPFR, as of 18<sup>th</sup> Oct, 2023

Figure 43: DM Equity Fund flows – last month



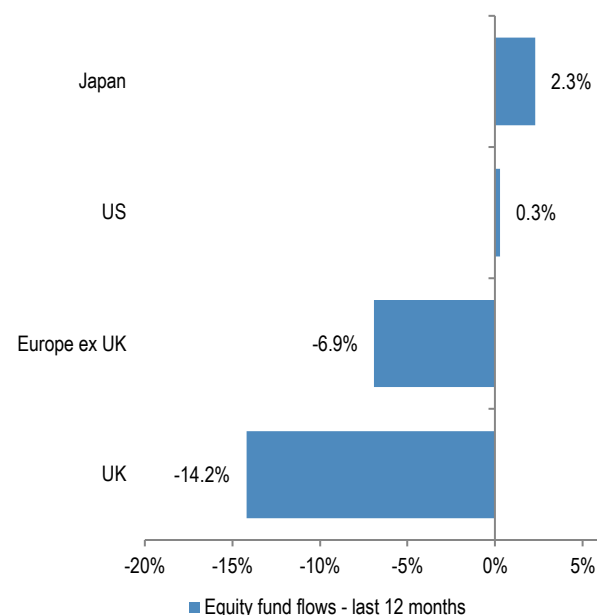
Source: EPFR, Japan includes BoJ purchases.

Figure 44: Cumulative fund flows into regional funds as a percentage of AUM



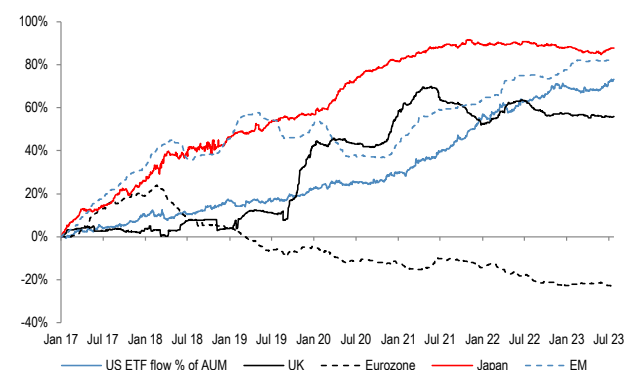
Source: EPFR, as of 18<sup>th</sup> Oct, 2023. Japan includes Non-ETF purchases only.

Figure 45: DM Equity Fund flows – last 12 months



Source: EPFR, Japan includes BoJ purchases.

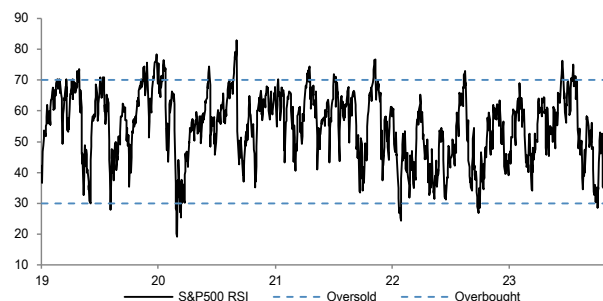
Figure 46: Cumulative fund flows into regional equity ETFs as a percentage of AUM



Source: Bloomberg Finance L.P. \*Based on the 25 biggest ETFs with a mandate to invest in that particular region. Japan includes BoJ purchases.

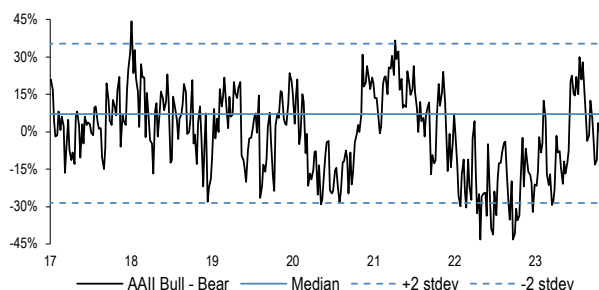
## Technical Indicators

Figure 47: S&P500 RSI



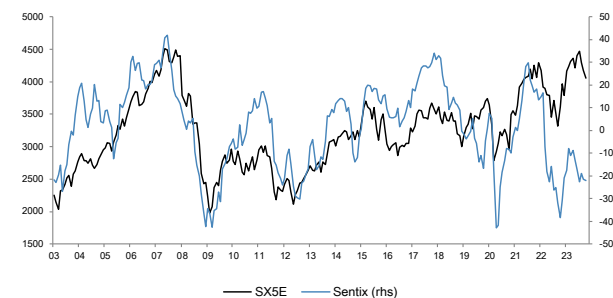
Source: Bloomberg Finance L.P.

Figure 48: AAll Bull-Bear



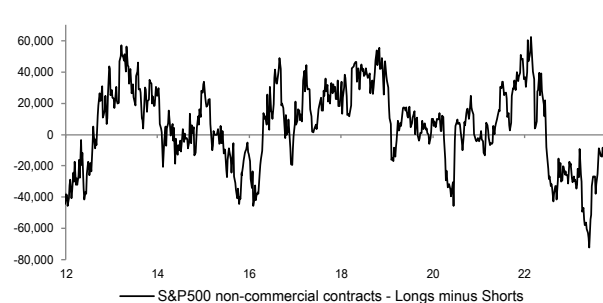
Source: Bloomberg Finance L.P.

Figure 49: Sentix Sentiment Index vs SX5E



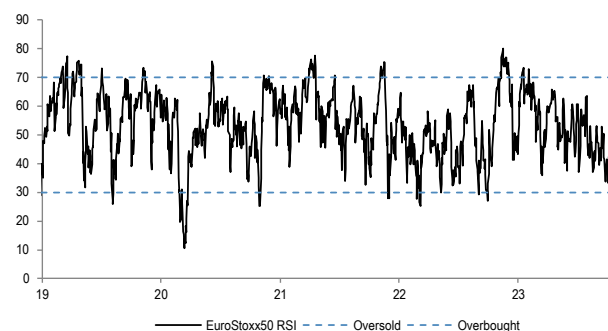
Source: Bloomberg Finance L.P.

Figure 50: Speculative positions in S&P500 futures contracts



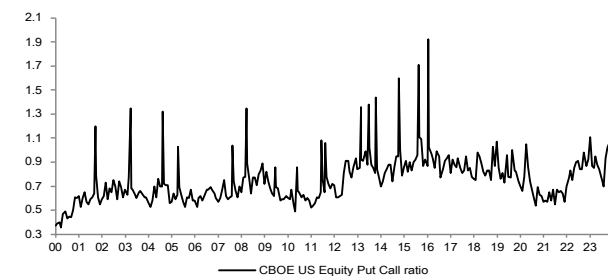
Source: Bloomberg Finance L.P.

Figure 51: Eurostoxx50 RSI



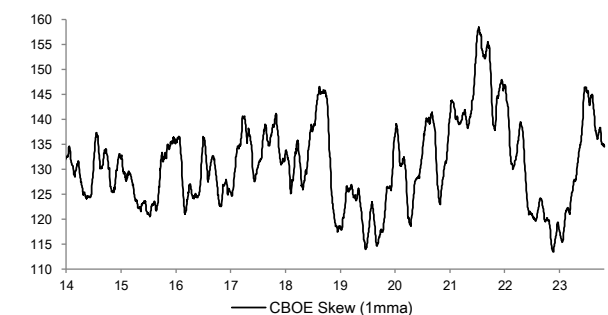
Source: Bloomberg Finance L.P.

Figure 52: Put-call ratio



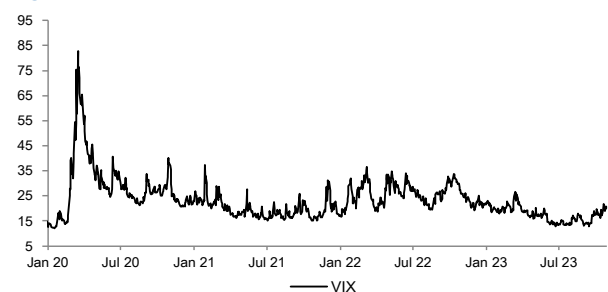
Source: Bloomberg Finance L.P.

Figure 53: Equity Skew



Source: Bloomberg Finance L.P.

Figure 54: VIX



Source: Bloomberg Finance L.P.

## Performance

Table 16: Sector Index Performances — MSCI Europe

(%change)		Local currency		
Industry Group		4week	12m	YTD
Europe		(3.4)	5.8	1.7
Energy		(0.5)	13.4	9.2
Materials		(3.9)	(3.1)	(6.5)
	Chemicals	(3.2)	(5.8)	(3.3)
	Construction Materials	(5.0)	39.4	28.1
	Metals & Mining	(4.5)	(9.0)	(20.2)
Industrials		(5.8)	7.1	3.5
	Capital Goods	(5.4)	10.6	4.9
	Transport	(11.5)	(2.9)	(2.8)
	Business Svs	(4.5)	(4.0)	(0.3)
Consumer Discretionary		(5.0)	7.9	1.3
	Automobile	(7.2)	7.1	5.6
	Consumer Durables	(3.9)	5.8	(0.6)
	Media	(1.5)	10.0	6.8
	Retailing	(6.2)	21.4	(1.2)
	Hotels, Restaurants & Leisure	(3.8)	5.8	4.4
Consumer Staples		(1.4)	(2.3)	(4.8)
	Food & Drug Retailing	(1.7)	7.6	6.4
	Food Beverage & Tobacco	(1.5)	(7.8)	(8.7)
	Household Products	(1.2)	8.9	1.8
Healthcare		(4.1)	4.0	1.2
Financials		(4.5)	12.4	3.6
	Banks	(5.9)	20.8	8.8
	Diversified Financials	(5.4)	(0.8)	(2.2)
	Insurance	(1.4)	10.7	0.7
Real Estate		(3.5)	(8.8)	(12.0)
Information Technology		0.7	9.6	11.7
	Software and Services	2.8	15.3	22.6
	Technology Hardware	(3.6)	(16.5)	(14.7)
	Semicon & Semicon Equip	0.2	15.4	13.0
Telecommunications Services		(2.4)	3.1	3.4
Utilities		0.5	5.6	(1.2)

Source: MSCI, Datastream, as at COB 26<sup>th</sup> Oct, 2023.

Table 17: Country and Region Index Performances

(%change)		Local Currency			US\$		
Country	Index	4week	12m	YTD	4week	12m	YTD
Austria	ATX	(4.0)	5.6	(3.3)	(4.2)	10.8	(4.4)
Belgium	BEL 20	(6.3)	(6.6)	(10.8)	(6.4)	(2.0)	(11.9)
Denmark	KFX	(0.9)	28.5	15.2	(1.1)	34.3	13.4
Finland	HEX 20	(4.2)	(13.8)	(15.7)	(4.4)	(9.6)	(16.7)
France	CAC 40	(3.2)	9.8	6.4	(3.4)	15.2	5.1
Germany	DAX	(3.9)	11.6	5.8	(4.0)	17.1	4.5
Greece	ASE General	(1.3)	36.5	26.6	(1.5)	43.2	25.1
Ireland	ISEQ	(7.4)	12.1	9.4	(7.6)	17.6	8.0
Italy	FTSE MIB	(2.3)	22.9	16.0	(2.5)	28.9	14.6
Japan	Topix	(5.2)	16.0	17.6	(5.8)	13.1	3.1
Netherlands	AEX	(0.9)	8.1	4.4	(1.1)	13.4	3.1
Norway	OBX	(2.7)	3.1	1.2	(6.9)	(5.7)	(11.2)
Portugal	BVL GEN	0.6	(4.5)	(5.1)	0.4	0.2	(6.2)
Spain	IBEX 35	(4.9)	13.9	8.9	(5.1)	19.5	7.6
Sweden	OMX	(3.4)	4.8	1.0	(5.4)	2.1	(5.8)
Switzerland	SMI	(5.0)	(4.2)	(3.4)	(3.1)	5.3	(0.5)
United States	S&P 500	(3.8)	8.0	7.8	(3.8)	8.0	7.8
United States	NASDAQ	(4.6)	14.8	20.3	(4.6)	14.8	20.3
United Kingdom	FTSE 100	(3.3)	4.2	(1.3)	(3.8)	8.9	(0.5)
EMU	MSCI EMU	(3.4)	8.2	3.7	(3.6)	13.5	2.4
Europe	MSCI Europe	(3.4)	5.8	1.7	(3.5)	11.0	1.1
Global	MSCI AC World	(3.9)	7.4	6.5	(4.0)	8.1	5.3

Source: MSCI, Datastream, as at COB 26<sup>th</sup> Oct, 2023.

## Earnings

Table 18: IBES Consensus EPS Sector Forecasts — MSCI Europe

	EPS Growth (%)			
	2022	2023E	2024E	2025E
<b>Europe</b>	<b>20.8</b>	<b>(2.5)</b>	<b>6.8</b>	<b>8.6</b>
<b>Energy</b>	<b>121.8</b>	<b>(28.9)</b>	<b>0.7</b>	<b>(0.5)</b>
<b>Materials</b>	<b>2.9</b>	<b>(35.6)</b>	<b>11.0</b>	<b>7.9</b>
Chemicals	3.1	(28.3)	21.1	14.2
Construction Materials	17.1	9.0	6.7	8.9
Metals & Mining	(2.6)	(45.0)	2.8	0.9
<b>Industrials</b>	<b>20.9</b>	<b>(0.5)</b>	<b>9.3</b>	<b>12.5</b>
Capital Goods	6.8	22.3	12.0	12.6
Transport	84.9	(57.3)	(9.4)	15.3
Business Svs	12.7	4.2	9.8	10.0
<b>Discretionary</b>	<b>18.2</b>	<b>9.7</b>	<b>5.1</b>	<b>9.9</b>
Automobile	17.5	4.0	(1.7)	5.0
Consumer Durables	15.2	0.9	9.9	12.8
Media	37.6	0.3	10.2	8.3
Retailing	1.8	36.8	16.5	18.5
Hotels, Restaurants & Leisure	118.0	92.7	23.8	19.5
<b>Staples</b>	<b>13.2</b>	<b>2.2</b>	<b>7.4</b>	<b>8.8</b>
Food & Drug Retailing	4.9	1.5	11.8	11.7
Food Beverage & Tobacco	17.0	1.4	6.7	8.7
Household Products	5.6	4.7	7.8	7.9
<b>Healthcare</b>	<b>7.5</b>	<b>2.6</b>	<b>11.7</b>	<b>13.8</b>
<b>Financials</b>	<b>6.2</b>	<b>16.4</b>	<b>7.1</b>	<b>7.7</b>
Banks	9.0	26.8	3.0	6.2
Diversified Financials	7.0	(14.3)	17.6	13.8
Insurance	0.1	15.2	11.5	7.6
<b>Real Estate</b>	<b>4.1</b>	<b>11.2</b>	<b>(1.4)</b>	<b>(0.1)</b>
<b>IT</b>	<b>0.3</b>	<b>12.5</b>	<b>8.8</b>	<b>18.9</b>
Software and Services	(23.5)	17.8	15.0	13.3
Technology Hardware	1.7	(20.9)	19.9	9.1
Semicon & Semicon Equip	24.4	25.3	1.6	26.2
<b>Telecoms</b>	<b>27.3</b>	<b>(5.0)</b>	<b>10.1</b>	<b>9.7</b>
<b>Utilities</b>	<b>30.4</b>	<b>2.7</b>	<b>(3.2)</b>	<b>1.1</b>

Source: IBES, MSCI, Datastream. As at COB 26<sup>th</sup> Oct, 2023.

Table 19: IBES Consensus EPS Country Forecasts

		EPS Growth (%)			
Country	Index	2022	2023E	2024E	2025E
Austria	ATX	36.3	(16.3)	(0.2)	3.2
Belgium	BEL 20	2.3	4.6	8.0	17.2
Denmark	Denmark KFX	22.3	(9.7)	15.1	19.1
Finland	MSCI Finland	5.0	(23.9)	16.6	8.4
France	CAC 40	28.5	(0.4)	5.2	8.6
Germany	DAX	9.5	1.0	7.3	9.6
Greece	MSCI Greece	121.4	2.6	0.5	5.4
Ireland	MSCI Ireland	12.8	39.9	5.3	8.6
Italy	MSCI Italy	29.0	9.2	0.2	2.9
Netherlands	AEX	29.4	(4.3)	5.6	12.2
Norway	MSCI Norway	83.6	(38.5)	12.2	(1.8)
Portugal	MSCI Portugal	23.5	30.5	8.2	6.6
Spain	IBEX 35	28.9	2.5	1.5	6.9
Sweden	OMX	(8.3)	31.8	3.9	7.8
Switzerland	SMI	2.0	3.0	10.9	10.9
United Kingdom	FTSE 100	28.6	(10.5)	5.6	6.3
EMU	MSCI EMU	19.8	3.5	6.7	9.3
Europe ex UK	MSCI Europe ex UK	17.6	1.6	7.4	9.7
Europe	MSCI Europe	20.8	(2.5)	6.8	8.6
United States	S&P 500	7.3	0.5	12.0	12.3
Japan	Topix	2.8	11.8	8.2	9.3
Emerging Market	MSCI EM	5.9	(4.2)	18.6	14.6
Global	MSCI AC World	9.7	(0.4)	11.3	11.5

Source: IBES, MSCI, Datastream. As at COB 26<sup>th</sup> Oct, 2023\*\* Japan refers to the period from March in the year stated to March in the following year – EPS post-goodwill



## Valuations

Table 20: IBES Consensus European Sector Valuations

	P/E			Dividend Yields			EV/EBITDA			Price to Book		
	2023e	2024e	2025e	2023e	2024e	2025e	2023e	2024e	2025e	2023e	2024e	2025e
<b>Europe</b>	<b>12.2</b>	<b>11.5</b>	<b>10.5</b>	<b>3.8%</b>	<b>4.0%</b>	<b>4.2%</b>	<b>7.6</b>	<b>7.2</b>	<b>6.6</b>	<b>1.7</b>	<b>1.6</b>	<b>1.5</b>
<b>Energy</b>	<b>7.1</b>	<b>7.0</b>	<b>7.1</b>	<b>5.5%</b>	<b>5.3%</b>	<b>5.3%</b>	<b>3.1</b>	<b>3.0</b>	<b>3.2</b>	<b>1.3</b>	<b>1.2</b>	<b>1.1</b>
<b>Materials</b>	<b>13.4</b>	<b>12.0</b>	<b>11.2</b>	<b>4.2%</b>	<b>4.2%</b>	<b>4.4%</b>	<b>7.0</b>	<b>6.5</b>	<b>5.9</b>	<b>1.5</b>	<b>1.4</b>	<b>1.3</b>
Chemicals	20.2	16.7	14.6	3.3%	3.4%	3.6%	10.7	9.3	8.5	1.9	1.9	1.8
Construction Materials	10.6	10.0	9.1	3.8%	3.9%	4.2%	6.4	5.9	5.3	1.2	1.1	1.0
Metals & Mining	8.9	8.7	8.6	5.8%	5.5%	5.6%	4.6	4.4	4.1	1.2	1.1	1.0
<b>Industrials</b>	<b>16.1</b>	<b>14.7</b>	<b>13.1</b>	<b>2.8%</b>	<b>3.0%</b>	<b>3.3%</b>	<b>9.0</b>	<b>8.4</b>	<b>7.4</b>	<b>2.7</b>	<b>2.5</b>	<b>2.3</b>
Capital Goods	16.1	14.4	12.8	2.7%	2.9%	3.2%	9.6	8.6	7.5	2.8	2.6	2.4
Transport	12.2	13.5	11.7	4.1%	3.7%	3.8%	5.8	6.3	6.0	1.5	1.5	1.4
Business Svs	19.5	17.7	16.1	2.6%	2.8%	3.1%	12.6	11.4	10.4	5.3	4.9	4.3
<b>Discretionary</b>	<b>11.3</b>	<b>10.8</b>	<b>9.8</b>	<b>3.1%</b>	<b>3.4%</b>	<b>3.7%</b>	<b>5.5</b>	<b>5.1</b>	<b>4.2</b>	<b>1.7</b>	<b>1.6</b>	<b>1.4</b>
Automobile	4.8	4.9	4.7	6.0%	6.2%	6.5%	2.1	2.3	1.5	0.7	0.6	0.6
Consumer Durables	19.8	18.0	16.0	2.1%	2.3%	2.6%	13.1	11.7	10.4	3.8	3.4	3.1
Media & Entertainment	15.1	13.7	12.6	2.5%	2.7%	2.8%	12.2	11.0	8.8	1.7	1.6	1.5
Retailing	16.1	13.8	11.6	2.3%	2.8%	3.0%	13.6	7.9	6.9	2.9	2.5	2.4
Hotels, Restaurants & Leisure	23.2	18.7	15.7	2.0%	2.6%	2.9%	13.3	11.2	9.6	3.5	3.2	2.9
<b>Staples</b>	<b>16.9</b>	<b>15.8</b>	<b>14.5</b>	<b>3.1%</b>	<b>3.3%</b>	<b>3.5%</b>	<b>11.2</b>	<b>10.4</b>	<b>9.6</b>	<b>2.7</b>	<b>2.6</b>	<b>2.4</b>
Food & Drug Retailing	12.9	11.6	10.4	3.6%	3.9%	4.1%	6.5	6.0	5.7	1.6	1.6	1.5
Food Beverage & Tobacco	16.5	15.4	14.2	3.4%	3.6%	3.9%	11.1	10.3	9.6	2.4	2.3	2.2
Household Products	19.9	18.5	17.1	2.4%	2.5%	2.7%	14.3	13.2	12.1	4.0	3.8	3.5
<b>Healthcare</b>	<b>16.8</b>	<b>15.0</b>	<b>13.2</b>	<b>2.6%</b>	<b>2.7%</b>	<b>3.0%</b>	<b>12.4</b>	<b>11.0</b>	<b>9.8</b>	<b>3.4</b>	<b>3.1</b>	<b>2.8</b>
<b>Financials</b>	<b>7.9</b>	<b>7.4</b>	<b>6.9</b>	<b>5.9%</b>	<b>6.5%</b>	<b>6.8%</b>				<b>0.9</b>	<b>0.9</b>	<b>0.8</b>
Banks	6.0	5.8	5.5	7.8%	8.6%	8.8%				0.7	0.7	0.6
Diversified Financials	12.7	10.8	9.5	2.8%	3.0%	3.3%				1.1	1.2	1.1
Insurance	10.1	9.1	8.5	5.7%	6.1%	6.5%				1.5	1.4	1.3
<b>Real Estate</b>	<b>10.7</b>	<b>10.9</b>	<b>10.9</b>	<b>5.6%</b>	<b>5.8%</b>	<b>6.0%</b>				<b>0.6</b>	<b>0.7</b>	<b>0.6</b>
<b>IT</b>	<b>20.8</b>	<b>19.1</b>	<b>16.1</b>	<b>1.5%</b>	<b>1.6%</b>	<b>1.8%</b>	<b>13.1</b>	<b>12.2</b>	<b>10.2</b>	<b>3.9</b>	<b>3.6</b>	<b>3.2</b>
Software and Services	23.0	20.0	17.7	1.6%	1.7%	1.8%	14.2	12.9	11.2	3.6	3.3	3.1
Technology Hardware	14.3	11.9	11.0	2.8%	3.1%	3.4%	8.4	7.1	6.3	1.6	1.5	1.4
Semicon & Semicon Equip	21.4	21.0	16.7	1.1%	1.2%	1.4%	14.1	13.8	10.9	6.7	5.7	4.8
<b>Communication Services</b>	<b>13.8</b>	<b>12.5</b>	<b>11.4</b>	<b>4.5%</b>	<b>4.7%</b>	<b>4.9%</b>	<b>6.7</b>	<b>6.4</b>	<b>5.9</b>	<b>1.3</b>	<b>1.3</b>	<b>1.2</b>
<b>Utilities</b>	<b>11.3</b>	<b>11.7</b>	<b>11.6</b>	<b>5.4%</b>	<b>5.4%</b>	<b>5.6%</b>	<b>7.8</b>	<b>7.9</b>	<b>7.8</b>	<b>1.6</b>	<b>1.5</b>	<b>1.4</b>

Source: IBES, MSCI, Datastream. As at COB 26<sup>th</sup> Oct, 2023.

Table 21: IBES Consensus P/E and 12-Month Forward Dividend Yields — Country Forecasts

Country	Index	P/E				Dividend Yield 12mth Fwd
		12mth Fwd	2023E	2024E	2025E	
Austria	ATX	6.4	6.4	6.4	6.2	6.3%
Belgium	BEL 20	13.5	14.4	13.3	11.4	3.5%
Denmark	Denmark KFX	23.8	26.8	23.3	19.5	1.8%
Finland	MSCI Finland	12.7	14.5	12.4	11.5	5.0%
France	CAC 40	11.1	11.5	11.0	10.1	3.7%
Germany	DAX	9.9	10.5	9.8	8.9	4.0%
Greece	MSCI Greece	34.8	35.0	34.8	33.0	1.5%
Ireland	MSCI Ireland	11.7	12.2	11.6	10.7	3.0%
Italy	MSCI Italy	7.5	7.5	7.5	7.3	6.1%
Netherlands	AEX	12.8	13.3	12.6	11.2	2.9%
Norway	MSCI Norway	9.8	10.8	9.6	9.8	6.4%
Portugal	MSCI Portugal	14.1	15.1	13.9	13.1	4.0%
Spain	IBEX 35	9.8	9.9	9.8	9.2	5.2%
Sweden	OMX	12.6	13.0	12.5	11.6	4.1%
Switzerland	SMI	14.8	16.1	14.6	13.1	3.6%
United Kingdom	FTSE 100	10.0	10.4	9.9	9.3	4.5%
EMU	MSCI EMU	11.0	11.6	10.9	10.0	3.9%
Europe ex UK	MSCI Europe ex UK	12.2	13.0	12.1	11.0	3.7%
<b>Europe</b>	<b>MSCI Europe</b>	<b>11.6</b>	<b>12.2</b>	<b>11.5</b>	<b>10.5</b>	<b>3.9%</b>
United States	S&P 500	17.3	19.2	17.1	15.2	1.7%
Japan	Topix	13.2	13.9	12.9	11.8	2.5%
Emerging Market	MSCI EM	11.5	13.3	10.7	9.8	3.2%
Global	MSCI AC World	15.5	17.0	14.5	13.7	2.4%

Source: IBES, MSCI, Datastream. As at COB 26<sup>th</sup> Oct, 2023; \*\* Japan refers to the period from March in the year stated to March in the following year – P/E post goodwill.

## Economic, Interest Rate and Exchange Rate Outlook

Table 22: Economic Outlook in Summary

	Real GDP % oya			Real GDP % over previous period, saar						Consumer prices % oya			
	2022	2023E	2024E	1Q23	2Q23	3Q23E	4Q23E	1Q24E	2Q24E	2Q23	4Q23E	2Q24E	4Q24E
United States	1.9	2.4	1.4	2.2	2.1	4.9	1.5	0.5	0.5	4.1	3.3	2.6	2.1
Eurozone	3.4	0.5	0.6	0.2	0.5	0.0	0.5	0.7	0.7	6.2	3.3	2.9	2.1
United Kingdom	4.3	0.6	0.2	1.3	0.8	0.0	1.0	0.8	0.0	8.4	4.4	2.5	3.0
Japan	1.0	1.9	0.7	3.2	4.8	0.2	0.0	0.6	0.6	3.4	3.7	4.1	3.4
Emerging markets	3.5	3.9	3.6	4.0	1.4	3.3	2.1	1.9	1.9	3.4	3.9	4.5	3.8
Global	2.9	2.6	2.1	7.4	1.1	4.8	3.6	3.5	3.6	4.3	3.6	3.5	3.0

Source: J.P. Morgan economic research J.P. Morgan estimates, as of COB 19<sup>th</sup> Oct, 2023

Table 23: Official Rates Outlook

%	Official interest rate	Current	Last change (bp)	Forecast next change (bp)	Forecast for			
					Dec 23	Mar 24	Jun 24	Sep 24
United States	Federal funds rate	5.50	26 Jul 23 (+25bp)	3Q24 (-25bp)	5.50	5.50	5.50	5.25
Eurozone	Depo rate	4.00	14 Sep 23 (+25bp)	Sep 24 (-25bp)	4.00	4.00	4.00	3.75
United Kingdom	Repo rate	5.25	03 Aug 23 (+25bp)	On hold	5.25	5.25	5.25	5.25
Japan	Overnight call rate	-0.10	Jan 16 (-20bp)	3Q24 (+10bp)	-0.10	-0.10	-0.10	0.00

Source: J.P. Morgan estimates, Datastream, as of COB 19<sup>th</sup> Oct 2023.

Table 24: 10-Year Government Bond Yield Forecasts

10Yr Govt BY	Forecast for end of				
	27-Oct-23	Dec 23	Mar 24	Jun 24	Sep 24
US	4.86	4.75	4.55	4.20	4.00
Euro Area	2.83	2.50	2.20	2.00	1.90
United Kingdom	4.57	4.40	4.15	3.90	3.75
Japan	0.88	0.75	0.80	0.90	1.00

Source: J.P. Morgan estimates, Datastream, forecasts as of COB 19<sup>th</sup> Oct, 2023.

Table 25: Exchange Rate Forecasts vs. US Dollar

Exchange rates vs US\$	Forecast for end of				
	26-Oct-23	Dec 23	Mar 24	Jun 24	Sep 24
EUR	1.05	1.00	1.03	1.05	1.10
GBP	1.21	1.14	1.18	1.21	1.26
CHF	0.90	0.93	0.92	0.91	0.87
JPY	150	152	153	153	149
DX	106.6	111.3	108.9	107.2	103.0

Source: J.P. Morgan estimates, Datastream, forecasts as of COB 19<sup>th</sup> Oct, 2023.

## Sector, Regional and Asset Class Allocations

Table 26: J.P. Morgan Equity Strategy — European Sector Allocation

	MSCI Europe Weights	J.P. Morgan Allocation	Deviation From MSCI	J.P. Morgan Recommendation
Energy	6.6%	8.0%	1.4%	OW
Materials	7.0%	6.0%	-1.0%	N
				UW
				N
Industrials	14.6%	14.0%	-0.6%	N
				UW
				OW
				N
				N
Consumer Discretionary	9.2%	8.0%	-1.2%	N
				UW
				N
				N
				UW
				UW
Consumer Staples	12.4%	13.0%	0.6%	OW
				N
				N
				OW
				OW
Healthcare	16.3%	18.0%	1.7%	OW
Financials	17.7%	15.0%	-2.7%	UW
				UW
				OW
Real Estate	0.7%	1.0%	0.3%	N
Information Technology	6.7%	7.0%	0.3%	N
				N
				N
Communication Services	4.5%	5.0%	0.5%	OW
				OW
				N
Utilities	4.3%	5.0%	0.7%	OW
	100.0%	100.0%	0.0%	Balanced

Source: MSCI, Datastream, J.P. Morgan.

Table 27: J.P. Morgan Equity Strategy — Global Regional Allocation

	MSCI Weights	Allocation	Deviation	Recommendation
EM	10.9%	11.0%	0.1%	Neutral
DM	89.1%	89.0%	-0.1%	Neutral
US	67.7%	64.0%	-3.7%	Underweight
Japan	6.1%	9.0%	2.9%	Overweight
Eurozone	9.8%	8.0%	-1.8%	Underweight
UK	4.3%	6.0%	1.7%	Overweight
Other*	12.1%	13.0%	0.9%	Overweight
	100.0%	100.0%	0.0%	Balanced

Source: MSCI, J.P. Morgan \*Other includes Denmark, Switzerland, Australia, Canada, Hong Kong SAR, Sweden, Singapore, New Zealand, Israel and Norway

Table 28: J.P. Morgan Equity Strategy — European Regional Allocation

	MSCI Europe Weights	Allocation	Deviation	Recommendation
Eurozone	51.5%	47.0%	-4.5%	Underweight
United Kingdom	22.7%	26.0%	3.3%	Overweight
Other**	25.9%	27.0%	1.1%	Overweight
	100.0%	100.0%	0.0%	Balanced

Source: MSCI, J.P. Morgan \*\*Other includes Denmark, Switzerland, Sweden and Norway

Table 29: J.P. Morgan Equity Strategy — Asset Class Allocation

	Benchmark Weighting	Allocation	Deviation	Recommendation
Equities	60%	55%	-5%	Underweight
Bonds	30%	35%	5%	Overweight
Cash	10%	10%	0%	Neutral
	100%	100%	0%	Balanced

Source: J.P. Morgan Equity Strategy

**Analyst Certification:** The Research Analyst(s) denoted by an “AC” on the cover of this report certifies (or, where multiple Research Analysts are primarily responsible for this report, the Research Analyst denoted by an “AC” on the cover or within the document individually certifies, with respect to each security or issuer that the Research Analyst covers in this research) that: (1) all of the views expressed in this report accurately reflect the Research Analyst’s personal views about any and all of the subject securities or issuers; and (2) no part of any of the Research Analyst’s compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the Research Analyst(s) in this report. For all Korea-based Research Analysts listed on the front cover, if applicable, they also certify, as per KOFIA requirements, that the Research Analyst’s analysis was made in good faith and that the views reflect the Research Analyst’s own opinion, without undue influence or intervention.

All authors named within this report are Research Analysts who produce independent research unless otherwise specified. In Europe, Sector Specialists (Sales and Trading) may be shown on this report as contacts but are not authors of the report or part of the Research Department.

## Important Disclosures

**Company-Specific Disclosures:** Important disclosures, including price charts and credit opinion history tables, are available for compendium reports and all J.P. Morgan–covered companies, and certain non-covered companies, by visiting <https://www.jpmm.com/research/disclosures>, calling 1-800-477-0406, or e-mailing [research.disclosure.inquiries@jpmorgan.com](mailto:research.disclosure.inquiries@jpmorgan.com) with your request.

### Explanation of Equity Research Ratings, Designations and Analyst(s) Coverage Universe:

J.P. Morgan uses the following rating system: Overweight [Over the next six to twelve months, we expect this stock will outperform the average total return of the stocks in the analyst’s (or the analyst’s team’s) coverage universe.] Neutral [Over the next six to twelve months, we expect this stock will perform in line with the average total return of the stocks in the analyst’s (or the analyst’s team’s) coverage universe.] Underweight [Over the next six to twelve months, we expect this stock will underperform the average total return of the stocks in the analyst’s (or the analyst’s team’s) coverage universe.] Not Rated (NR): J.P. Morgan has removed the rating and, if applicable, the price target, for this stock because of either a lack of a sufficient fundamental basis or for legal, regulatory or policy reasons. The previous rating and, if applicable, the price target, no longer should be relied upon. An NR designation is not a recommendation or a rating. In our Asia (ex-Australia and ex-India) and U.K. small- and mid-cap equity research, each stock’s expected total return is compared to the expected total return of a benchmark country market index, not to those analysts’ coverage universe. If it does not appear in the Important Disclosures section of this report, the certifying analyst’s coverage universe can be found on J.P. Morgan’s research website, <https://www.jpmorganmarkets.com>.

### J.P. Morgan Equity Research Ratings Distribution, as of October 07, 2023

	Overweight (buy)	Neutral (hold)	Underweight (sell)
J.P. Morgan Global Equity Research Coverage*	47%	39%	14%
IB clients**	47%	45%	33%
JPMS Equity Research Coverage*	46%	41%	13%
IB clients**	65%	64%	51%

\*Please note that the percentages may not add to 100% because of rounding.

\*\*Percentage of subject companies within each of the "buy," "hold" and "sell" categories for which J.P. Morgan has provided investment banking services within the previous 12 months.

For purposes of FINRA ratings distribution rules only, our Overweight rating falls into a buy rating category; our Neutral rating falls into a hold rating category; and our Underweight rating falls into a sell rating category. Please note that stocks with an NR designation are not included in the table above. This information is current as of the end of the most recent calendar quarter.

**Equity Valuation and Risks:** For valuation methodology and risks associated with covered companies or price targets for covered companies, please see the most recent company-specific research report at <http://www.jpmorganmarkets.com>, contact the primary analyst or your J.P. Morgan representative, or email [research.disclosure.inquiries@jpmorgan.com](mailto:research.disclosure.inquiries@jpmorgan.com). For material information about the proprietary models used, please see the Summary of Financials in company-specific research reports and the Company Tearsheets, which are available to download on the company pages of our client website, <http://www.jpmorganmarkets.com>. This report also sets out within it the material underlying assumptions used.

A history of J.P. Morgan investment recommendations disseminated during the preceding 12 months can be accessed on the Research & Commentary page of <http://www.jpmorganmarkets.com> where you can also search by analyst name, sector or financial instrument.

**Analysts' Compensation:** The research analysts responsible for the preparation of this report receive compensation based upon various factors, including the quality and accuracy of research, client feedback, competitive factors, and overall firm revenues.

**Registration of non-US Analysts:** Unless otherwise noted, the non-US analysts listed on the front of this report are employees of non-US affiliates of J.P. Morgan Securities LLC, may not be registered as research analysts under FINRA rules, may not be associated persons of J.P. Morgan Securities LLC, and may not be subject to FINRA Rule 2241 or 2242 restrictions on communications with covered companies, public appearances, and trading securities held by a research analyst account.

## Other Disclosures

---

J.P. Morgan is a marketing name for investment banking businesses of JPMorgan Chase & Co. and its subsidiaries and affiliates worldwide.

**UK MIFID FICC research unbundling exemption:** UK clients should refer to [UK MIFID Research Unbundling exemption](#) for details of JPMorgan's implementation of the FICC research exemption and guidance on relevant FICC research categorisation.

All research material made available to clients are simultaneously available on our client website, J.P. Morgan Markets, unless specifically permitted by relevant laws. Not all research content is redistributed, e-mailed or made available to third-party aggregators. For all research material available on a particular stock, please contact your sales representative.

Any long form nomenclature for references to China; Hong Kong; Taiwan; and Macau within this research material are Mainland China; Hong Kong SAR (China); Taiwan (China); and Macau SAR (China).

J.P. Morgan Research may, from time to time, write on issuers or securities targeted by economic or financial sanctions imposed or administered by the governmental authorities of the U.S., EU, UK or other relevant jurisdictions (Sanctioned Securities). Nothing in this report is intended to be read or construed as encouraging, facilitating, promoting or otherwise approving investment or dealing in such Sanctioned Securities. Clients should be aware of their own legal and compliance obligations when making investment decisions.

Any digital or crypto assets discussed in this research report are subject to a rapidly changing regulatory landscape. For relevant regulatory advisories on crypto assets, including bitcoin and ether, please see <https://www.jpmorgan.com/disclosures/cryptoasset-disclosure>.

The author(s) of this research report may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so.

**Exchange-Traded Funds (ETFs):** J.P. Morgan Securities LLC ("JPMS") acts as authorized participant for substantially all U.S.-listed ETFs. To the extent that any ETFs are mentioned in this report, JPMS may earn commissions and transaction-based compensation in connection with the distribution of those ETF shares and may earn fees for performing other trade-related services, such as securities lending to short sellers of the ETF shares. JPMS may also perform services for the ETFs themselves, including acting as a broker or dealer to the ETFs. In addition, affiliates of JPMS may perform services for the ETFs, including trust, custodial, administration, lending, index calculation and/or maintenance and other services.

**Options and Futures related research:** If the information contained herein regards options- or futures-related research, such information is available only to persons who have received the proper options or futures risk disclosure documents. Please contact your J.P. Morgan Representative or visit <https://www.theocc.com/components/docs/riskstoc.pdf> for a copy of the Option Clearing Corporation's Characteristics and Risks of Standardized Options or [http://www.finra.org/sites/default/files/Security\\_Futures\\_Risk\\_Disclosure\\_Statement\\_2018.pdf](http://www.finra.org/sites/default/files/Security_Futures_Risk_Disclosure_Statement_2018.pdf) for a copy of the Security Futures Risk Disclosure Statement.

**Changes to Interbank Offered Rates (IBORs) and other benchmark rates:** Certain interest rate benchmarks are, or may in the future become, subject to ongoing international, national and other regulatory guidance, reform and proposals for reform. For more information, please consult: [https://www.jpmorgan.com/global/disclosures/interbank\\_offered\\_rates](https://www.jpmorgan.com/global/disclosures/interbank_offered_rates)

**Private Bank Clients:** Where you are receiving research as a client of the private banking businesses offered by JPMorgan Chase & Co. and its subsidiaries ("J.P. Morgan Private Bank"), research is provided to you by J.P. Morgan Private Bank and not by any other division of J.P. Morgan, including, but not limited to, the J.P. Morgan Corporate and Investment Bank and its Global Research division.

**Legal entity responsible for the production and distribution of research:** The legal entity identified below the name of the Reg AC Research Analyst who authored this material is the legal entity responsible for the production of this research. Where multiple Reg AC Research Analysts authored this material with different legal entities identified below their names, these legal entities are jointly

responsible for the production of this research. Research Analysts from various J.P. Morgan affiliates may have contributed to the production of this material but may not be licensed to carry out regulated activities in your jurisdiction (and do not hold themselves out as being able to do so). Unless otherwise stated below, this material has been distributed by the legal entity responsible for production. If you have any queries, please contact the relevant Research Analyst in your jurisdiction or the entity in your jurisdiction that has distributed this research material.

#### Legal Entities Disclosures and Country-/Region-Specific Disclosures:

**Argentina:** JPMorgan Chase Bank N.A Sucursal Buenos Aires is regulated by Banco Central de la República Argentina ("BCRA"- Central Bank of Argentina) and Comisión Nacional de Valores ("CNV"- Argentinian Securities Commission) - ALYC y AN Integral N°51). **Australia:** J.P. Morgan Securities Australia Limited ("JPMSAL") (ABN 61 003 245 234/AFS Licence No: 238066) is regulated by the Australian Securities and Investments Commission and is a Market, Clearing and Settlement Participant of ASX Limited and CHIX. This material is issued and distributed in Australia by or on behalf of JPMSAL only to "wholesale clients" (as defined in section 761G of the Corporations Act 2001). A list of all financial products covered can be found by visiting <https://www.jpmm.com/research/disclosures>. J.P. Morgan seeks to cover companies of relevance to the domestic and international investor base across all Global Industry Classification Standard (GICS) sectors, as well as across a range of market capitalisation sizes. If applicable, in the course of conducting public side due diligence on the subject company(ies), the Research Analyst team may at times perform such diligence through corporate engagements such as site visits, discussions with company representatives, management presentations, etc. Research issued by JPMSAL has been prepared in accordance with J.P. Morgan Australia's Research Independence Policy which can be found at the following link: [J.P. Morgan Australia - Research Independence Policy](#). **Brazil:** Banco J.P. Morgan S.A. is regulated by the Comissão de Valores Mobiliários (CVM) and by the Central Bank of Brazil. Ombudsman J.P. Morgan: 0800-7700847 / [ouvidoria.jp.morgan@jpmorgan.com](mailto:ouvidoria.jp.morgan@jpmorgan.com). **Canada:** J.P. Morgan Securities Canada Inc. is a registered investment dealer, regulated by the Canadian Investment Regulatory Organization and the Ontario Securities Commission and is the participating member on Canadian exchanges. This material is distributed in Canada by or on behalf of J.P.Morgan Securities Canada Inc. **Chile:** Inversiones J.P. Morgan Limitada is an unregulated entity incorporated in Chile. **China:** J.P. Morgan Securities (China) Company Limited has been approved by CSRC to conduct the securities investment consultancy business. **Dubai International Financial Centre (DIFC):** JPMorgan Chase Bank, N.A., Dubai Branch is regulated by the Dubai Financial Services Authority (DFSA) and its registered address is Dubai International Financial Centre - The Gate, West Wing, Level 3 and 9 PO Box 506551, Dubai, UAE. This material has been distributed by JP Morgan Chase Bank, N.A., Dubai Branch to persons regarded as professional clients or market counterparties as defined under the DFSA rules. **European Economic Area (EEA):** Unless specified to the contrary, research is distributed in the EEA by J.P. Morgan SE ("JPM SE"), which is subject to prudential supervision by the European Central Bank ("ECB") in cooperation with BaFin and Deutsche Bundesbank in Germany. JPM SE is a company headquartered in Frankfurt with registered address at TaunusTurm, Taunustor 1, Frankfurt am Main, 60310, Germany. The material has been distributed in the EEA to persons regarded as professional investors (or equivalent) pursuant to Art. 4 para. 1 no. 10 and Annex II of MiFID II and its respective implementation in their home jurisdictions ("EEA professional investors"). This material must not be acted on or relied on by persons who are not EEA professional investors. Any investment or investment activity to which this material relates is only available to EEA relevant persons and will be engaged in only with EEA relevant persons. **Hong Kong:** J.P. Morgan Securities (Asia Pacific) Limited (CE number AAJ321) is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission in Hong Kong, and J.P. Morgan Broking (Hong Kong) Limited (CE number AAB027) is regulated by the Securities and Futures Commission in Hong Kong. JP Morgan Chase Bank, N.A., Hong Kong Branch (CE Number AAL996) is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission, is organized under the laws of the United States with limited liability. Where the distribution of this material is a regulated activity in Hong Kong, the material is distributed in Hong Kong by or through J.P. Morgan Securities (Asia Pacific) Limited and/or J.P. Morgan Broking (Hong Kong) Limited. **India:** J.P. Morgan India Private Limited (Corporate Identity Number - U67120MH1992FTC068724), having its registered office at J.P. Morgan Tower, Off. C.S.T. Road, Kalina, Santacruz - East, Mumbai - 400098, is registered with the Securities and Exchange Board of India (SEBI) as a 'Research Analyst' having registration number INH000001873. J.P. Morgan India Private Limited is also registered with SEBI as a member of the National Stock Exchange of India Limited and the Bombay Stock Exchange Limited (SEBI Registration Number - INZ000239730) and as a Merchant Banker (SEBI Registration Number - MB/INM000002970). Telephone: 91-22-6157 3000, Facsimile: 91-22-6157 3990 and Website: <http://www.jpmpi.com>. JPMorgan Chase Bank, N.A. - Mumbai Branch is licensed by the Reserve Bank of India (RBI) (Licence No. 53/ Licence No. BY.4/94; SEBI - IN/CUS/014/ CDSL : IN-DP-CDSL-444-2008/ IN-DP-NSDL-285-2008/ INBI00000984/ INE231311239) as a Scheduled Commercial Bank in India, which is its primary license allowing it to carry on Banking business in India and other activities, which a Bank branch in India are permitted to undertake. For non-local research material, this material is not distributed in India by J.P. Morgan India Private Limited. Compliance Officer: Spurthi Gadamsetty; [spurthi.gadamsetty@jpmchase.com](mailto:spurthi.gadamsetty@jpmchase.com); +912261573225. Grievance Officer: Ramprasad K, [jpmpi.research.feedback@jpmorgan.com](mailto:jpmpi.research.feedback@jpmorgan.com); +912261573000.

Investment in securities market are subject to market risks. Read all the related documents carefully before investing. Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors.

**Indonesia:** PT J.P. Morgan Sekuritas Indonesia is a member of the Indonesia Stock Exchange and is registered and supervised by the Otoritas Jasa Keuangan (OJK). **Korea:** J.P. Morgan Securities (Far East) Limited, Seoul Branch, is a member of the Korea Exchange (KRX). JPMorgan Chase Bank, N.A., Seoul Branch, is licensed as a branch office of foreign bank (JPMorgan Chase Bank, N.A.) in Korea. Both entities are regulated by the Financial Services Commission (FSC) and the Financial Supervisory Service (FSS). For non-



macro research material, the material is distributed in Korea by or through J.P. Morgan Securities (Far East) Limited, Seoul Branch. **Japan:** JPMorgan Securities Japan Co., Ltd. and JPMorgan Chase Bank, N.A., Tokyo Branch are regulated by the Financial Services Agency in Japan. **Malaysia:** This material is issued and distributed in Malaysia by JPMorgan Securities (Malaysia) Sdn Bhd (18146-X), which is a Participating Organization of Bursa Malaysia Berhad and holds a Capital Markets Services License issued by the Securities Commission in Malaysia. **Mexico:** J.P. Morgan Casa de Bolsa, S.A. de C.V. and J.P. Morgan Grupo Financiero are members of the Mexican Stock Exchange and are authorized to act as a broker dealer by the National Banking and Securities Exchange Commission. **New Zealand:** This material is issued and distributed by JPMSAL in New Zealand only to "wholesale clients" (as defined in the Financial Markets Conduct Act 2013). JPMSAL is registered as a Financial Service Provider under the Financial Service providers (Registration and Dispute Resolution) Act of 2008. **Pakistan:** J. P. Morgan Pakistan Broking (Pvt.) Ltd is a member of the Karachi Stock Exchange and regulated by the Securities and Exchange Commission of Pakistan. **Philippines:** J.P. Morgan Securities Philippines Inc. is a Trading Participant of the Philippine Stock Exchange and a member of the Securities Clearing Corporation of the Philippines and the Securities Investor Protection Fund. It is regulated by the Securities and Exchange Commission. **Russia:** CB J.P. Morgan Bank International LLC is regulated by the Central Bank of Russia. **Singapore:** This material is issued and distributed in Singapore by or through J.P. Morgan Securities Singapore Private Limited (JPMSS) [MCI (P) 030/08/2023 and Co. Reg. No.: 199405335R], which is a member of the Singapore Exchange Securities Trading Limited, and/or JPMorgan Chase Bank, N.A., Singapore branch (JPMCB Singapore), both of which are regulated by the Monetary Authority of Singapore. This material is issued and distributed in Singapore only to accredited investors, expert investors and institutional investors, as defined in Section 4A of the Securities and Futures Act, Cap. 289 (SFA). This material is not intended to be issued or distributed to any retail investors or any other investors that do not fall into the classes of "accredited investors," "expert investors" or "institutional investors," as defined under Section 4A of the SFA. Recipients of this material in Singapore are to contact JPMSS or JPMCB Singapore in respect of any matters arising from, or in connection with, the material. As at the date of this material, JPMSS is a designated market maker for certain structured warrants listed on the Singapore Exchange where the underlying securities may be the securities discussed in this material. Arising from its role as a designated market maker for such structured warrants, JPMSS may conduct hedging activities in respect of such underlying securities and hold or have an interest in such underlying securities as a result. The updated list of structured warrants for which JPMSS acts as designated market maker may be found on the website of the Singapore Exchange Limited: <http://www.sgx.com>. **South Africa:** J.P. Morgan Equities South Africa Proprietary Limited and JPMorgan Chase Bank, N.A., Johannesburg Branch are members of the Johannesburg Securities Exchange and are regulated by the Financial Services Board. **Taiwan:** J.P. Morgan Securities (Taiwan) Limited is a participant of the Taiwan Stock Exchange (company-type) and regulated by the Taiwan Securities and Futures Bureau. Material relating to equity securities is issued and distributed in Taiwan by J.P. Morgan Securities (Taiwan) Limited, subject to the license scope and the applicable laws and the regulations in Taiwan. According to Paragraph 2, Article 7-1 of Operational Regulations Governing Securities Firms Recommending Trades in Securities to Customers (as amended or supplemented) and/or other applicable laws or regulations, please note that the recipient of this material is not permitted to engage in any activities in connection with the material that may give rise to conflicts of interests, unless otherwise disclosed in the "Important Disclosures" in this material. **Thailand:** This material is issued and distributed in Thailand by JPMorgan Securities (Thailand) Ltd., which is a member of the Stock Exchange of Thailand and is regulated by the Ministry of Finance and the Securities and Exchange Commission, and its registered address is 3rd Floor, 20 North Sathorn Road, Silom, Bangrak, Bangkok 10500. **UK:** Unless specified to the contrary, research is distributed in the UK by J.P. Morgan Securities plc ("JPMS plc") which is a member of the London Stock Exchange and is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. JPMS plc is registered in England & Wales No. 2711006, Registered Office 25 Bank Street, London, E14 5JP. This material is directed in the UK only to: (a) persons having professional experience in matters relating to investments falling within article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) (Order) 2005 ("the FPO"); (b) persons outlined in article 49 of the FPO (high net worth companies, unincorporated associations or partnerships, the trustees of high value trusts, etc.); or (c) any persons to whom this communication may otherwise lawfully be made; all such persons being referred to as "UK relevant persons". This material must not be acted on or relied on by persons who are not UK relevant persons. Any investment or investment activity to which this material relates is only available to UK relevant persons and will be engaged in only with UK relevant persons. Research issued by JPMS plc has been prepared in accordance with JPMS plc's policy for prevention and avoidance of conflicts of interest related to the production of Research which can be found at the following link: [J.P. Morgan EMEA - Research Independence Policy](#). **U.S.:** J.P. Morgan Securities LLC ("JPMS") is a member of the NYSE, FINRA, SIPC, and the NFA. JPMorgan Chase Bank, N.A. is a member of the FDIC. Material published by non-U.S. affiliates is distributed in the U.S. by JPMS who accepts responsibility for its content.

**General:** Additional information is available upon request. The information in this material has been obtained from sources believed to be reliable. While all reasonable care has been taken to ensure that the facts stated in this material are accurate and that the forecasts, opinions and expectations contained herein are fair and reasonable, JPMorgan Chase & Co. or its affiliates and/or subsidiaries (collectively J.P. Morgan) make no representations or warranties whatsoever to the completeness or accuracy of the material provided, except with respect to any disclosures relative to J.P. Morgan and the Research Analyst's involvement with the issuer that is the subject of the material. Accordingly, no reliance should be placed on the accuracy, fairness or completeness of the information contained in this material. There may be certain discrepancies with data and/or limited content in this material as a result of calculations, adjustments, translations to different languages, and/or local regulatory restrictions, as applicable. These discrepancies should not impact the overall investment analysis, views and/or recommendations of the subject company(ies) that may be discussed in the material. J.P. Morgan accepts no liability whatsoever for any loss arising from any use of this material or its contents, and neither J.P. Morgan nor any of its

respective directors, officers or employees, shall be in any way responsible for the contents hereof, apart from the liabilities and responsibilities that may be imposed on them by the relevant regulatory authority in the jurisdiction in question, or the regulatory regime thereunder. Opinions, forecasts or projections contained in this material represent J.P. Morgan's current opinions or judgment as of the date of the material only and are therefore subject to change without notice. Periodic updates may be provided on companies/industries based on company-specific developments or announcements, market conditions or any other publicly available information. There can be no assurance that future results or events will be consistent with any such opinions, forecasts or projections, which represent only one possible outcome. Furthermore, such opinions, forecasts or projections are subject to certain risks, uncertainties and assumptions that have not been verified, and future actual results or events could differ materially. The value of, or income from, any investments referred to in this material may fluctuate and/or be affected by changes in exchange rates. All pricing is indicative as of the close of market for the securities discussed, unless otherwise stated. Past performance is not indicative of future results. Accordingly, investors may receive back less than originally invested. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients. This material may include views on structured securities, options, futures and other derivatives. These are complex instruments, may involve a high degree of risk and may be appropriate investments only for sophisticated investors who are capable of understanding and assuming the risks involved. The recipients of this material must make their own independent decisions regarding any securities or financial instruments mentioned herein and should seek advice from such independent financial, legal, tax or other adviser as they deem necessary. J.P. Morgan may trade as a principal on the basis of the Research Analysts' views and research, and it may also engage in transactions for its own account or for its clients' accounts in a manner inconsistent with the views taken in this material, and J.P. Morgan is under no obligation to ensure that such other communication is brought to the attention of any recipient of this material. Others within J.P. Morgan, including Strategists, Sales staff and other Research Analysts, may take views that are inconsistent with those taken in this material. Employees of J.P. Morgan not involved in the preparation of this material may have investments in the securities (or derivatives of such securities) mentioned in this material and may trade them in ways different from those discussed in this material. This material is not an advertisement for or marketing of any issuer, its products or services, or its securities in any jurisdiction.

**Confidentiality and Security Notice:** This transmission may contain information that is privileged, confidential, legally privileged, and/or exempt from disclosure under applicable law. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or use of the information contained herein (including any reliance thereon) is STRICTLY PROHIBITED. Although this transmission and any attachments are believed to be free of any virus or other defect that might affect any computer system into which it is received and opened, it is the responsibility of the recipient to ensure that it is virus free and no responsibility is accepted by JPMorgan Chase & Co., its subsidiaries and affiliates, as applicable, for any loss or damage arising in any way from its use. If you received this transmission in error, please immediately contact the sender and destroy the material in its entirety, whether in electronic or hard copy format. This message is subject to electronic monitoring: <https://www.jpmorgan.com/disclosures/email>

**MSCI:** Certain information herein ("Information") is reproduced by permission of MSCI Inc., its affiliates and information providers ("MSCI") ©2023. No reproduction or dissemination of the Information is permitted without an appropriate license. MSCI MAKES NO EXPRESS OR IMPLIED WARRANTIES (INCLUDING MERCHANTABILITY OR FITNESS) AS TO THE INFORMATION AND DISCLAIMS ALL LIABILITY TO THE EXTENT PERMITTED BY LAW. No Information constitutes investment advice, except for any applicable Information from MSCI ESG Research. Subject also to [msci.com/disclaimer](https://www.msci.com/disclaimer)

"Other Disclosures" last revised October 21, 2023.

**Copyright 2023 JPMorgan Chase & Co. All rights reserved. This material or any portion hereof may not be reprinted, sold or redistributed without the written consent of J.P. Morgan. It is strictly prohibited to use or share without prior written consent from J.P. Morgan any research material received from J.P. Morgan or an authorized third-party ("J.P. Morgan Data") in any third-party artificial intelligence ("AI") systems or models when such J.P. Morgan Data is accessible by a third-party. It is permissible to use J.P. Morgan Data for internal business purposes only in an AI system or model that protects the confidentiality of J.P. Morgan Data so as to prevent any and all access to or use of such J.P. Morgan Data by any third-party.**