

Equity Strategy

USD, bond yields, oil and concentration all showing elevated risks remains a problematic backdrop

- The multiple expansion seen in past months, extremely low volatility metrics up to recently, tightest credit spreads since 2007, and the general inability by market participants earlier in the year to identify any potential negative catalysts for stocks are starting to shift.
- We remain concerned about continued [complacency](#) in equity valuations, inflation staying too [hot](#), further Fed repricing, rates moving higher for the “wrong reasons”, about profit outlook where the implied [acceleration](#) this year might end up too optimistic, high market concentration, as well as about the potential further escalation in geopolitical uncertainty.
- USD advanced ytd, and that was historically a challenge for equities, with the two exhibiting a clear inverse correlation - see top chart. **The gap that opened up so far this year**, where equities rallied despite stronger USD, **might end up closing**.
- This is in addition to Fed futures vs equities gap that we have been [highlighting](#) in past weeks. Last October, when S&P500 was at 4200, Fed was priced to cut rates 70-80bp this year. At the point of peak dovishness in January, this moved to as much as 180bp of cuts for 2024. Today’s market pricing of only 40bp of cuts is below the starting point of last October. Our view remains that **bond yields going higher from current levels will not be taken well by the equity market**, similar to what transpired last summer when S&P500 had a 10% drawdown. The P/Es vs real yields gap is already meaningful - middle chart.
- Oil stabilized last week, but it is still up 15% ytd, and gasoline prices are increasing. While earlier in the year one could have ascribed energy appreciation to activity improvement, the most recent moves are mostly supply driven, and pricing in the increased geopolitical risk premia. This comes at a bad time, when the Fed’s declared victory over inflation, the call that Jan-Feb CPI move back up is transitory, could end up questioned. **US Supercore CPI 3 month run rate is at 8%**, nearing 2022 highs.
- **Market concentration has been very high, and positioning extended**, which are typically red flags, at risk of a reversal. Broadly, the combination of macro factors outlined above, **any move higher in USD, yields or in Brent, together with continued elevated geopolitical uncertainty**, increases the downside risks, and suggests that **more Defensive trading should be appropriate**.
- We held a long-standing OW on Growth vs Value, OW Quality, and preference for Large Caps, alongside regional trades of OW US vs Europe and EM, even as we have this year tactically closed our bearish China call, and have in Q1 [closed](#) our US vs Eurozone preference. We stay with Quality, but Growth remains at risk of a reversal, and large caps are outperforming small everywhere again ytd. We argued recently that **Defensives** such as **Utilities** are likely to pick up even in the event of rising bond yields, as this might lead to lower beta trading. **Healthcare** tended to benefit from stronger USD. Some of the reduced beta has been in motion of late, alongside OW on **Energy**.

Equity Strategy

Mislav Matejka, CFA ^{AC}

(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

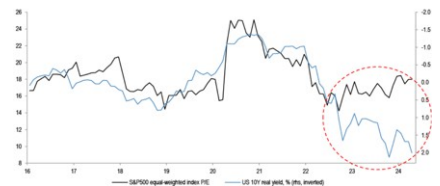
Karishma Manpuria, CFA

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

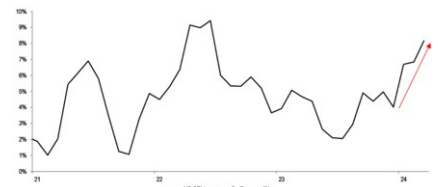
The ytd move higher in USD is consistent with weaker equity markets...



...bond yields rising from current levels should not be taken well by stocks... the P/Es vs real yields gap is already wide...



...oil price is up 15% ytd, and could pressure inflation expectations higher... US supercore CPI run rate is at 8%, approaching 2022 highs



Source: Datastream, Bloomberg Finance L.P.

See page 23 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.

Table Of Contents

USD, bond yields and oil all moving higher remains a problematic combination	3
Equity Strategy Key Calls and Drivers	12
Top Picks	13
Equity Flows Snapshot.....	14
Technical Indicators.....	15
Performance	16
Earnings	17
Valuations.....	18
Economic, Interest Rate and Exchange Rate Outlook.....	20
Sector, Regional and Asset Class Allocations.....	21

USD, bond yields and oil all moving higher remains a problematic combination

The Goldilocks narrative that the market embraced at the start of the year might get challenged...

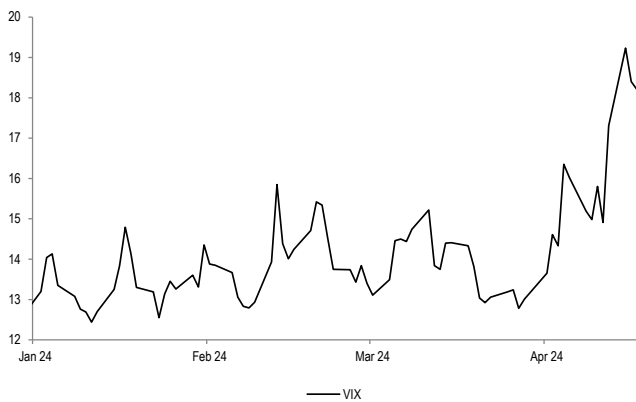
Table 1: Key regions - Current vs Oct '23 P/E and change in EPS

Key regions	Current PE	Oct'23 PE	% change	% change in 12m Fwd EPS
Eurozone	12.8	10.9	17%	3%
US	20.3	17.5	16%	5%
World	17.7	15.3	16%	4%
Europe	13.2	11.5	15%	2%
UK	11.2	9.9	14%	-5%
Japan	15.1	13.9	9%	10%
EM	11.8	11.1	6%	4%
China	9.1	9.5	-4%	0%

Source: IBES

Equities enjoyed a dramatic multiple expansion since October of last year, driven by pivot hopes.

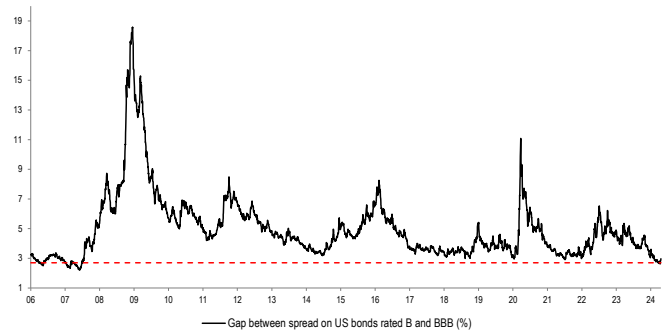
Figure 1: VIX



Source: Bloomberg Finance L.P.

Until very recently, volatility was near record lows.

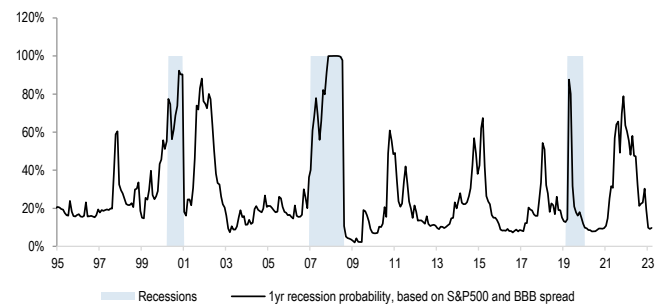
Figure 2: Gap between spread on US bonds rated B and BBB



Source: Bloomberg Finance L.P.

The spread between BBB and B bonds was close to the lowest levels since 2007, also indicating optimistic investor sentiment.

Figure 3: Recession probability indicator

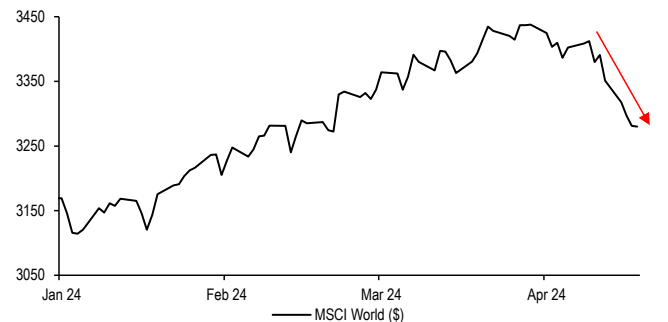


Source: J.P. Morgan.

Similarly, our recession probability indicator showed that the market isn't pricing in any meaningful risk of a downturn over the next year anymore.

...we worry about the complacency in equity markets

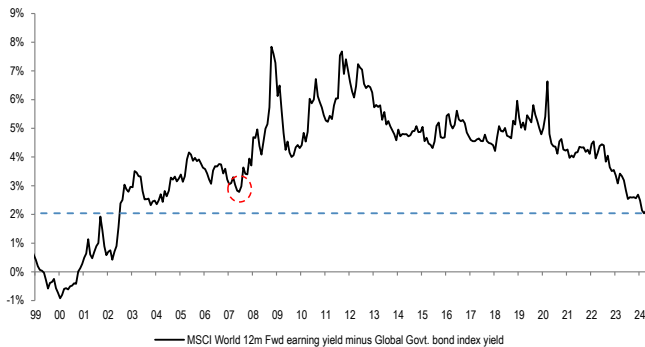
Figure 4: MSCI World ytd



Source: Bloomberg Finance L.P.

The positive market picture is starting to change. A combination of high inflation prints in the US and the rise in geopolitical tensions is contributing to this.

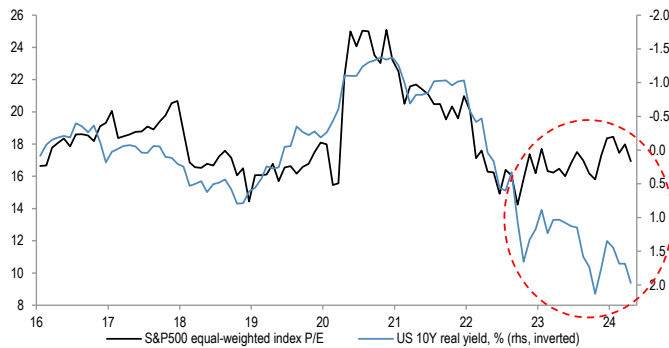
Figure 5: MSCI World 12m Fwd earnings yield minus Global Govt. bond index yield



Source: Datastream

Equities were stretched vs fixed income, with EY-BY gap the least attractive since 2007.

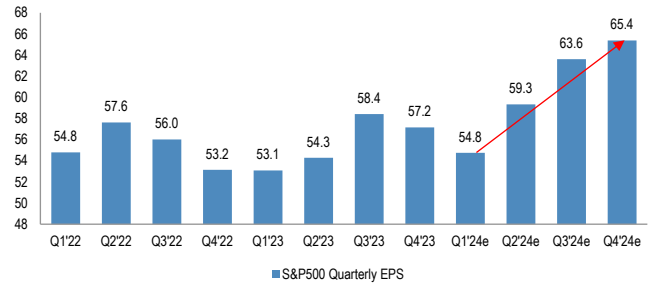
Figure 6: SPW 12m Fwd P/E and US 10Y real yield



Source: Bloomberg Finance L.P.

If bond yields move further up, that would not be positive for equities, especially given the already stretched valuation starting point.

Figure 7: S&P500 Quarterly EPS expectations

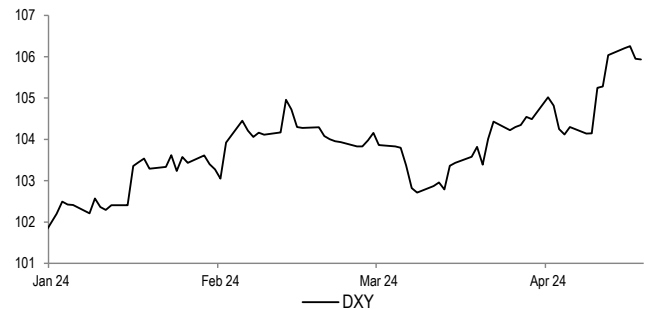


Source: Thomson Reuters

We do not think that P/Es can drive further equity upside without the support of earnings upgrades. Investors are expecting S&P500 EPS to accelerate by almost 20% by Q4 compared to the projected Q1 '24 levels. That hurdle rate is too steep in our opinion.

A stronger dollar is usually a problem for equities

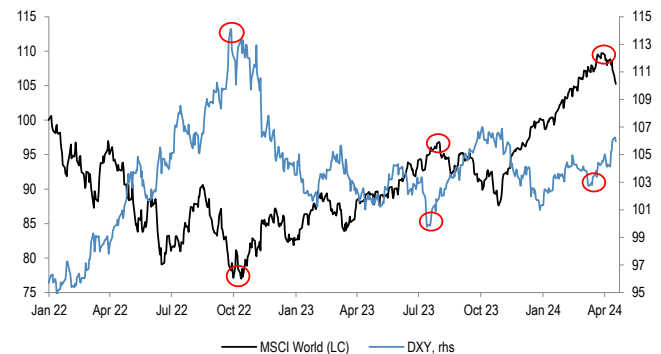
Figure 8: DXY



Source: Bloomberg Finance L.P.

USD had advanced so far ytd.

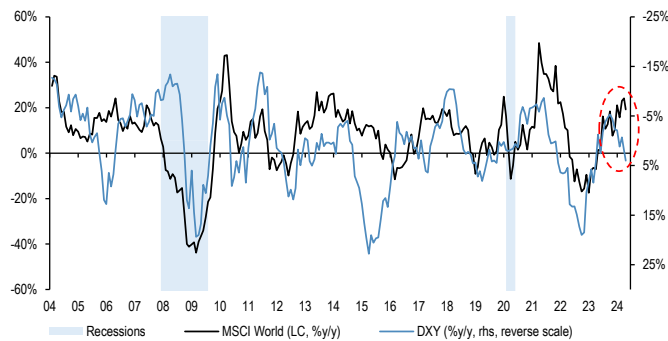
Figure 9: MSCI World and DXY since Jan'22



Source: Datastream, Bloomberg Finance L.P.

The peaks and troughs in the dollar have more or less coincided with the troughs and peaks in equities. Most recently, even though the dollar bottomed at the end of December, equities continued to rally.

Figure 10: MSCI World and DXY



Source: Bloomberg Finance L.P., Datastream

Historically, equities and the dollar exhibited a strong inverse correlation. In this context, the year-to-date divergence is quite notable. We believe that if the dollar continues to trend higher, equities will struggle.

Table 2: JPM DXY forecasts

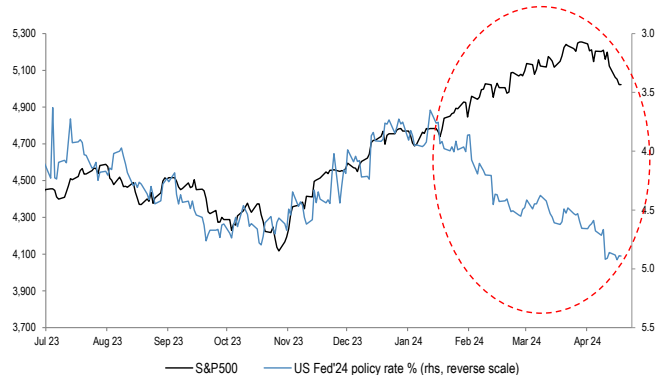
	Forecast for end of		
	18-Apr-24	Jun 24	Sep 24
DXY	106.2	106.4	106.1

Source: J.P. Morgan.

JPM FX team is looking for stronger USD from here.

The gap between Fed futures and equities remains formidable

Figure 11: SPX and fed funds futures



Source: Bloomberg Finance L.P.

So far, the repricing in Fed expectations has been largely ignored by the market.

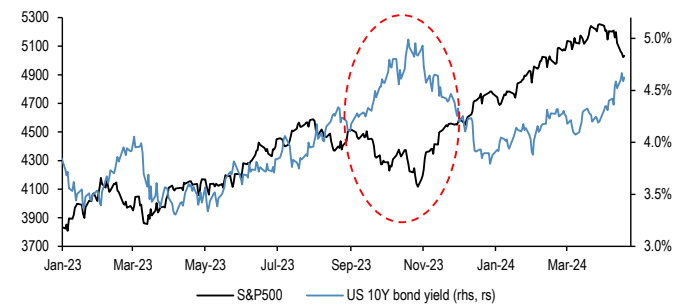
Table 3: Market expected Fed rate cut - Current vs Jan'24

Meeting	12th Jan'24	Current
01/31/2024	0	-
03/20/2024	-21	-
05/01/2024	-30	-1
06/12/2024	-32	-4
07/31/2024	-26	-8
09/18/2024	-25	-11
11/07/2024	-18	-6
12/18/2024	-17	-12
2024 cumulative cuts	-169	-42

Source: Bloomberg Finance L.P.

As of the 12th of January, the market was pricing in almost 170bp of cuts for this year. This dropped to just over 40bp at present.

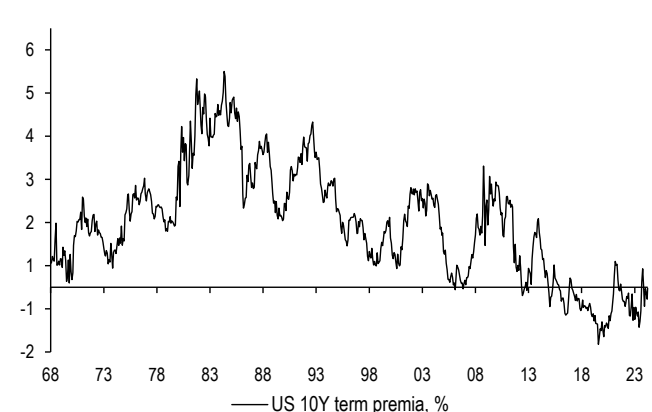
Figure 12: SPX and US 10Y bond yield



Source: Bloomberg Finance L.P.

Our view is that a continued move higher in yields will be problematic for equities. Last year, when yields moved from 3.9% to 5%, S&P500 had a 10% drawdown.

Figure 13: US 10Y Term Premia

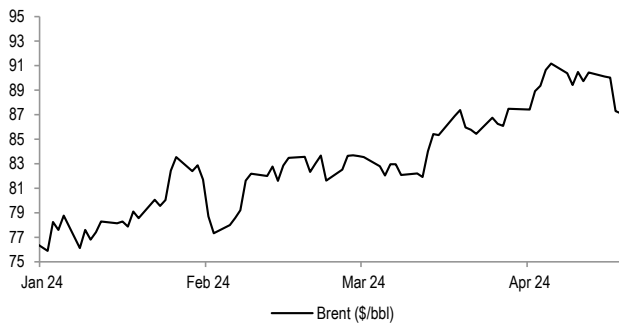


Source: J.P. Morgan.

It is interesting to note that term premia is still negative, suggesting that most expect inflation to start moving lower once again. The risk of further disappointments remains high.

Higher oil prices could further delay the roll-back in inflation

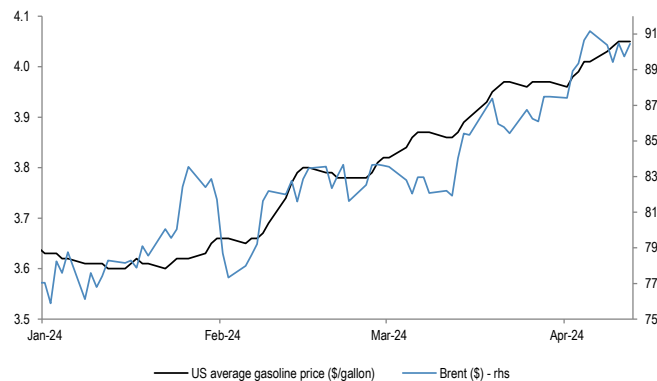
Figure 14: Brent



Source: Bloomberg Finance L.P.

Oil prices are up almost 15% year to date. While earlier in the year oil prices moved up on account of more optimistic demand projections, the more recent rise is driven by supply considerations and rising geopolitical risk premia.

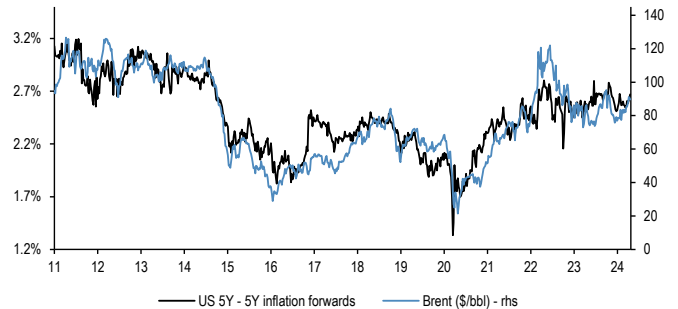
Figure 15: Brent and US Gasoline ytd



Source: Bloomberg Finance L.P.

US gasoline prices have broadly tracked the rise in oil prices.

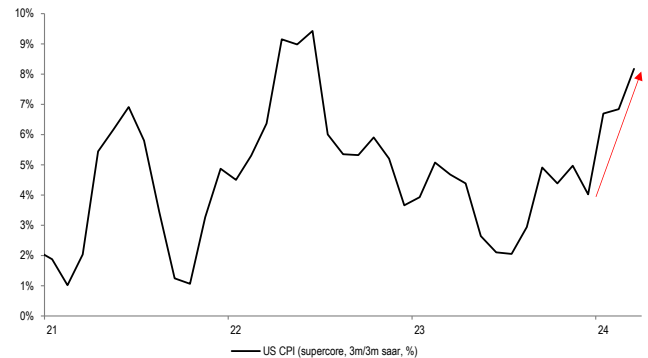
Figure 16: Brent and US 5Y Inflation forwards



Source: Bloomberg Finance L.P.

Brent and inflation forwards exhibit a strong positive correlation. Inflation could remain sticky at or above current levels unless oil prices move lower.

Figure 17: US supercore CPI

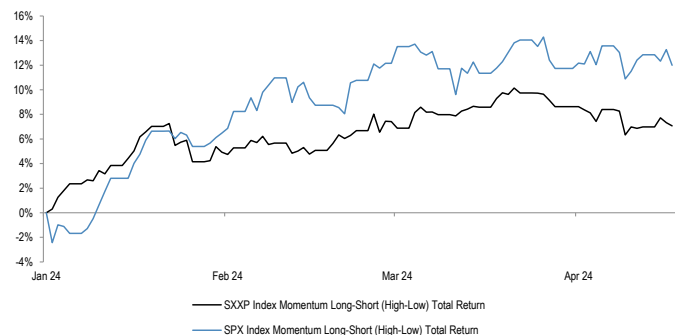


Source: Bloomberg Finance L.P.

Indeed, super-core CPI in the US has gone up sharply year to date, approaching 2022 highs.

Narrow market breadth is likely to amplify any negative moves, together with elevated positioning

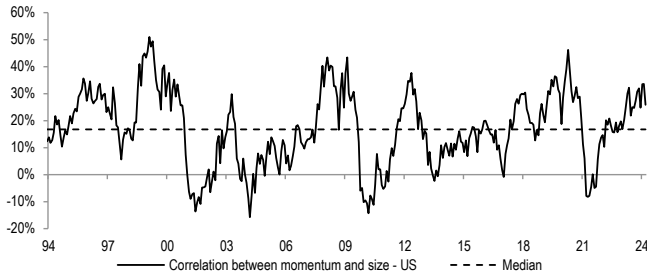
Figure 18: SPX and SXXP Momentum factor



Source: Bloomberg Finance L.P.

Momentum factor has been performing extremely well in both Europe and the US ytd.

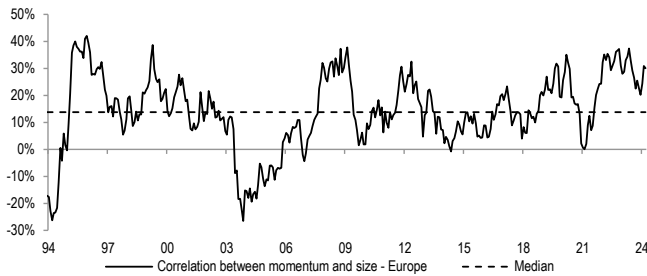
Figure 19: Correlation between momentum and size - US



Source: JPM US Equity Strategy

The correlation between momentum and size factors is at elevated levels, suggesting that stocks with bigger index weights are driving the momentum rally.

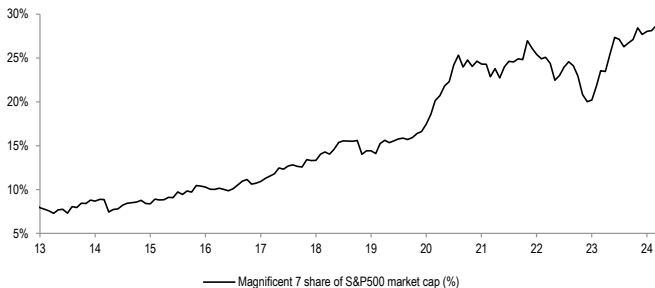
Figure 20: Correlation between momentum and size - Europe



Source: JPM US Equity Strategy

This is true for Europe as well, although not to the same extent.

Figure 21: Magnificent 7 share of S&P500



Source: Datastream

Top 7 stocks in the US account for almost 30% of market cap currently. We believe this is relatively unhealthy setup for the market. If momentum factor starts unwinding, it is likely to drag the overall market lower given the weight of underlying stocks in that cohort.

Figure 22: Regional Net Flows - Cumulative



Source: J.P.Morgan Positioning Intelligence

Equities have received strong inflows in last few months, particularly in the US.

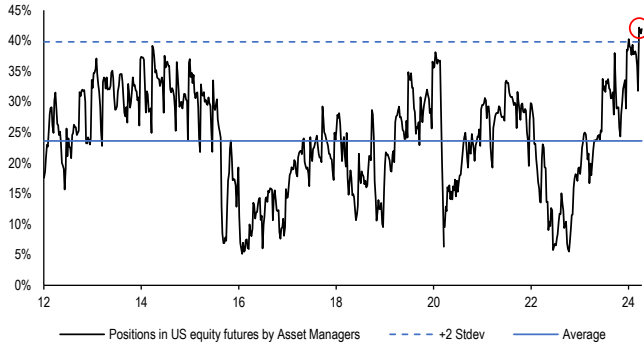
Figure 23: SPX mini futures positioning



Source: JPM Flows & Liquidity team

S&P500 positioning proxy based on cumulative daily changes in S&P500 mini futures open interest multiplied by the sign of the price change suggest that equity exposure, particularly among tactical investors i.e. hedge funds etc, is already quite elevated and even higher than what was observed at the end of 2021.

Figure 24: Positions in US equity futures by Asset Managers

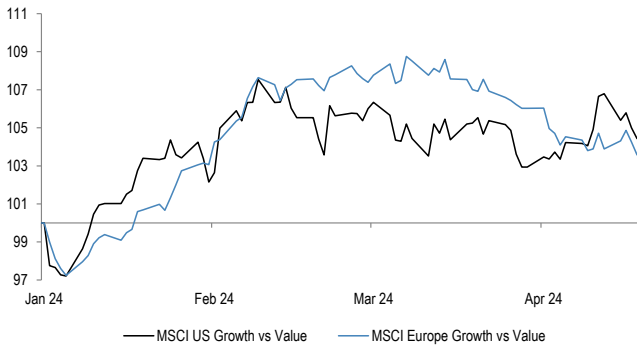


Source: JPM Flows & Liquidity team

Another positioning measure devised by our [Flows and Liquidity](#) team tracking US equity futures position of US asset managers is also quite stretched.

We continue to prefer Growth style over Value, even as we accept the risk of a reversal is high...

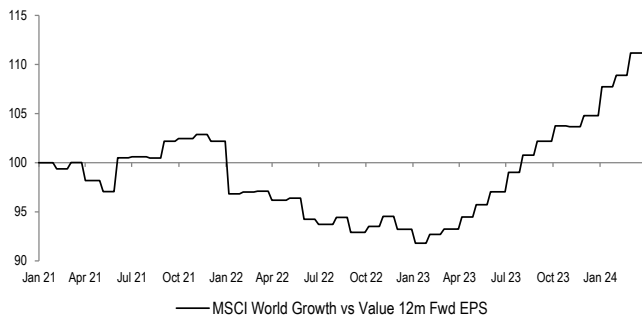
Figure 25: MSCI US and Europe Growth vs Value



Source: Datastream

In terms of our style preferences, we favoured Growth over Value style through last year, and again so far year to date.

Figure 26: MSCI World Growth vs Value 12m Fwd EPS



Source: Datastream

Growth style is supported by the continued better earnings delivery vs Value.

...and large caps over small caps

Table 4: Large vs Small caps ytd performance for key regions

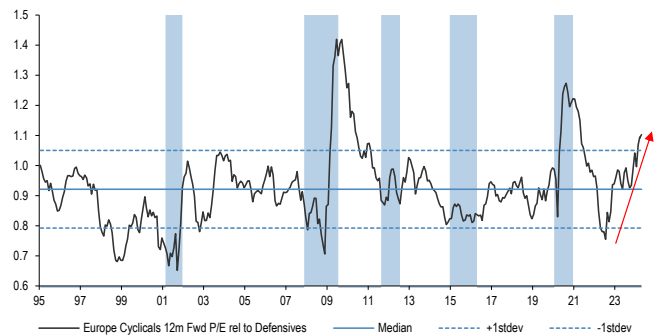
		% ytd perf
MSCI US	Small Cap	-3.2%
	Large Cap	4.8%
MSCI UK	Small Cap	-1.2%
	Large Cap	1.8%
MSCI Eurozone	Small Cap	1.8%
	Large Cap	6.9%
MSCI Japan	Small Cap	9.2%
	Large Cap	14.0%

Source: Datastream

We also held a preference for large caps over small caps. Small caps are trailing large caps in all key regions so far this year.

Defensive stocks are likely to trade better from here regardless of the direction of yields

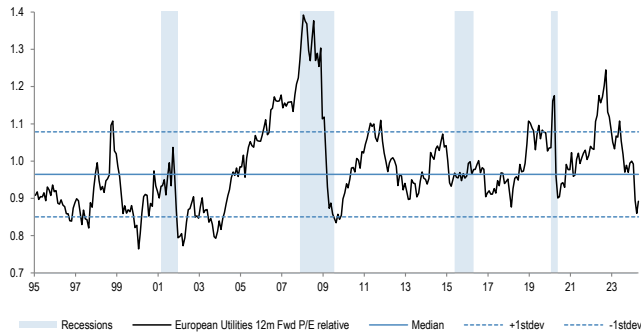
Figure 27: European Cyclical vs Defensives 12m Fwd PE relative



Source: IBES

At sector level, Cyclical have rerated to outright expensive vs Defensives. Even if bond yields go higher from here, we think that the equity market will not like it, leading to a potential low beta outperformance.

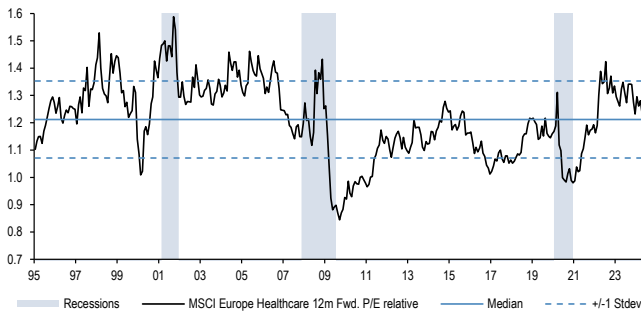
Figure 28: MSCI Europe Utilities 12m Fwd P/E relative



Source: IBES

Utilities in particular have de-rated to record cheap valuations.

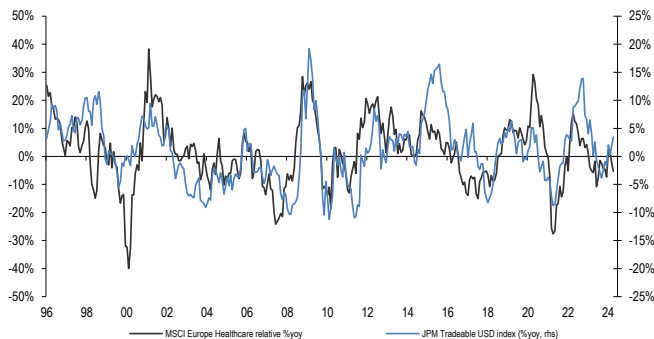
Figure 29: MSCI Europe Healthcare 12m Fwd P/E rel



Source: IBES

Healthcare is another sector which has de-rated significantly.

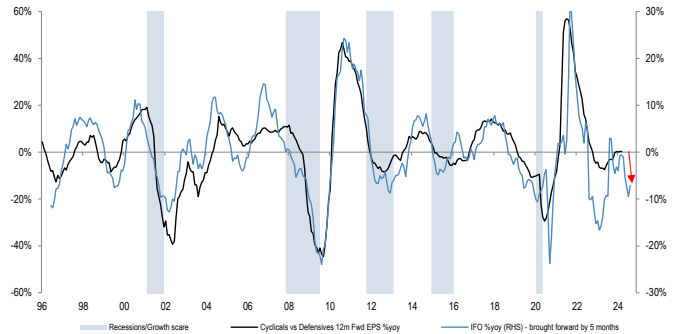
Figure 30: MSCI Europe Healthcare relative and JPM Tradeable USD



Source: Datastream

If the USD strengthens, Healthcare stands to benefit.

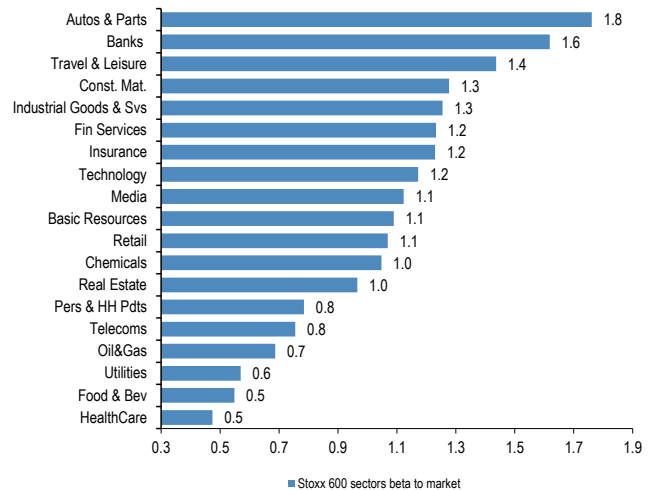
Figure 31: Cyclical EPS relative to Defensives vs IFO



Source: IBES, Datastream

In general, Cyclical earnings could underwhelm versus Defensives, judging by IFO direction.

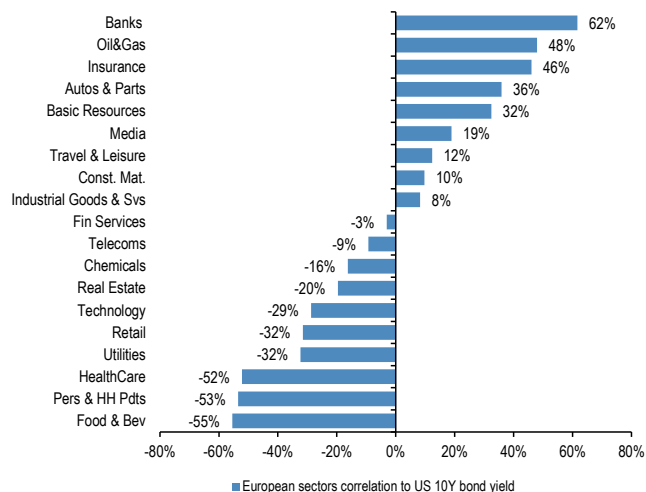
Figure 32: Stoxx 600 sectors beta to market



Source: Bloomberg Finance L.P.

If yields stay higher for longer on account of elevated inflationary pressures, then the low beta nature of Defensives would make them a good hedge against potential market downside.

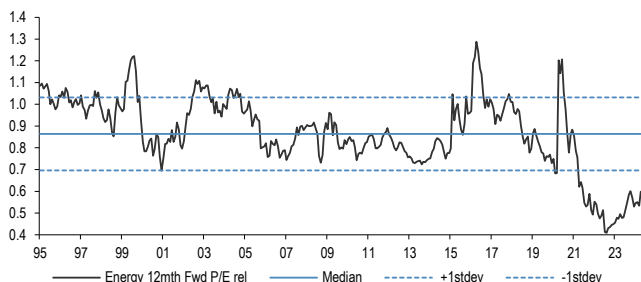
Figure 33: European sectors correlation to US 10Y bond yield



Source: Bloomberg Finance L.P.

On the other hand, it is the Defensive sectors that are best placed to benefit if yields move lower given the sharp inverse correlation.

Figure 34: European Energy 12m Fwd P/E relative

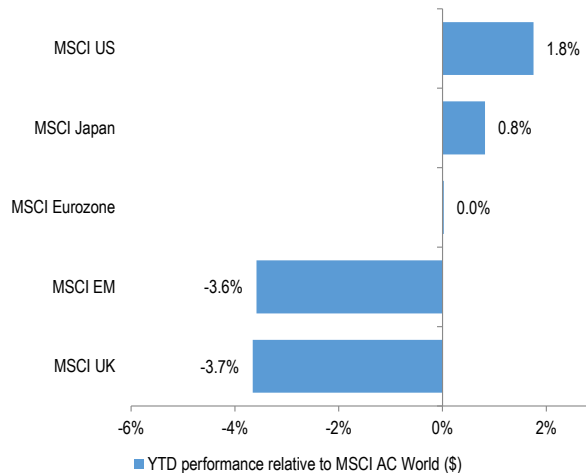


Source: IBES

We believe that Energy is also remaining attractive given strong FCF yield, very cheap valuations and the useful property of being a geopolitical hedge.

Regionally, we recently took profits on our preference for US equities over Eurozone, and on the China UW

Figure 35: YTD performance for key regions



Source: Datastream

We favoured US over EM and Europe, but have recently adjusted some of the bets.

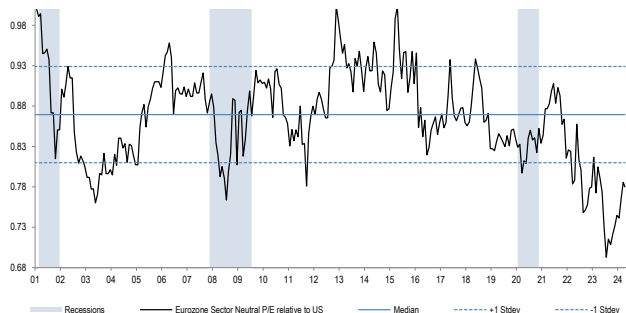
Figure 36: MSCI Eurozone vs US relative performance



Source: Datastream

We held a preference for US stocks over Eurozone since May of last year. As Eurozone lagged since then, we decided to neutralize the trade.

Figure 37: MSCI Eurozone sector neutral P/E vs MSCI US



Source: IBES

Eurozone at 13x is cheap vs the US at 21x, and the ECB could start moving ahead of the Fed this time around.

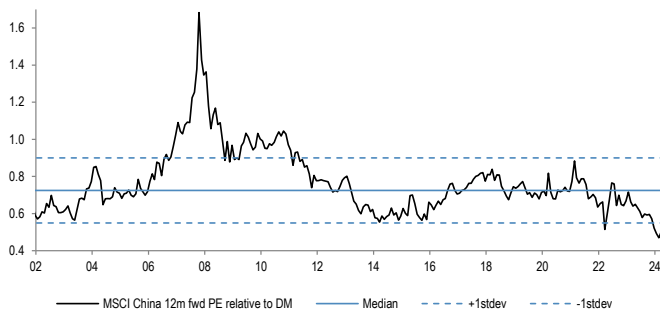
Figure 38: MSCI China



Source: Datastream

In Q1, we also closed our long-standing bearish China call, given the significant weakness already seen.

Figure 39: MSCI China 12m Fwd PE relative to MSCI World



Source: IBES

At 9x forward, Chinese equities are far from pricing in any optimism.

Equity Strategy Key Calls and Drivers

In terms of leadership, US and Japan are ahead of other markets ytd. Growth is outperforming Value and large caps are again beating small, in all key regions. We continue to believe that this style of leadership will broadly stay the case for a while longer, until there is a break, or a rest, in the cycle. For Value, low Quality, small caps or EM stocks to begin leading more sustainably one needs to see a deflationary backdrop, in our view, but we could see the opposite. Within this, we have recently taken profits on US vs Eurozone OW, as the Eurozone risk-reward has improved, in our view. Among other things?, Eurozone valuations appear very attractive, relative growth momentum could be bottoming out and ECB could start moving ahead of the Fed, which would be very atypical. We also have a tactical buy on China given extreme cheapness and UW positioning by most investors. Broadly, JPM Fixed Income's call is that bond yields are fundamentally set to move lower in 2H, but we note a pickup in inflation swaps as well as the outright negative term premia for bonds again, which suggest that there is a lot of complacency in the bond market with respect to the inflation risk. Consequently, the gap that has opened up ytd between Fed futures and the equity market is getting wider. Equities rallied almost 30% from last October's lows, driven in Nov-Dec by the expectation of a Fed pivot, but these projections have fully reversed back to October low levels. Equities are ignoring the most recent pivot of a pivot RIGHT WORD?, which might be a mistake. The assumption that the market is likely making here is one of growth acceleration coming to the rescue in 2H. In this regard, we note that earnings projections for 2024 are still not moving up. Regionally, Japan is staying our top pick, continuing our 2023 preference.

Table 5: 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 52.3
European Growth	Negative	Manufacturing and services are converging on the downside; industry data stays weak	
Monetary Policy	Neutral	Fed pivot could be accompanied by activity weakness	
Currency	Neutral	USD could strengthen again	
Earnings	Negative	Corporate pricing power is likely to weaken from here	2024 EPS projections are continuing their downtrend
Valuations	Negative	At 21x, US forward P/E is still stretched, especially vs real yield	MSCI Europe on 13.2x Fwd P/E
Technicals	Negative	Sentiment and positioning are stretched post the Nov-Dec rally	RSIs are in overbought territory

Source: J.P. Morgan estimates

Table 6: : Base Case and Risk

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 7: Index targets

	Dec '24 Target	18-Apr-24	% upside
MSCI Eurozone	256	291	-12%
FTSE 100	7,700	7,877	-2%
MSCI EUROPE	1,850	2,012	-8%
DJ EURO STOXX 50	4,250	4,937	-14%
DJ STOXX 600 E	460	500	-8%

Source: J.P. Morgan.

Table 8: Key Global sector calls

Overweight	Neutral	Underweight
Healthcare	Technology	Capital Goods ex A&D
Telecoms	Discretionary	Food& Drug Retail
Food, Beverage & Tobacco	Mining	Autos
Real Estate	Transportation	Banks
Utilities		

Source: J.P. Morgan

Table 9: J.P. Morgan Equity Strategy — Key sector calls*

Sector	Recommendations	Key Drivers
Healthcare	Overweight	Potential for lower yields and stronger dollar remain near term support, earnings are also holding up
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
Banks	Underweight	Downgraded to UW in October after 3 years of strong performance. Bond yields and PMIs direction is the key for the potential P/E re-rating of the sector, we think both will move lower
Chemicals	Underweight	The sector trades at 70% premium to the market, well above historical norm. pricing continues to deteriorate, downside risks to current earnings and margin projections

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

Table 10: 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	Neutral	Expensive, with earnings risk. Growth style at a risk of reversal
Japan	Overweight	Japan is attractively priced; diverging policy path and TSE reforms are tailwinds
Eurozone	Neutral	Eurozone trading at a record discount vs the US; Growth differential to improve
UK	Overweight	Valuations still look very attractive, low beta with the highest regional dividend yield

Source: J.P. Morgan estimates.

Top Picks

Table 11: 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	
							23e	24e	25e	24e	Current	10Y Median	% Premium	-3m	-12m
ENI	ENI IM	Energy	OW	15	E	49.7	-35%	-13%	1%	6.0%	7.1	12.7	-44%	4%	10%
TOTALENERGIES	TTE FP	Energy	OW	67	E	160.1	-33%	-3%	2%	4.7%	7.9	10.6	-26%	15%	15%
SHELL	SHEL LN	Energy	OW	33	E	212.1	-23%	-1%	6%	3.6%	8.5	11.2	-24%	19%	19%
CRH PUBLIC LIMITED	CRH LN	Materials	OW	77	US\$	49.5	-14%	24%	8%	1.7%	14.0	14.9	-6%	11%	61%
RIO TINTO	RIO LN	Materials	OW	537.1	£	107.2	-11%	0%	-3%	6.5%	9.3	10.3	-9%	-1%	-4%
NORSK HYDRO	NHY NO	Materials	OW	71	NK	12.3	-60%	19%	37%	3.5%	12.9	12.9	0%	18%	-13%
ANGLO AMERICAN	AAL LN	Materials	OW	2182	£	30.8	-51%	-13%	15%	3.5%	12.3	9.5	29%	22%	-22%
SCHNEIDER ELECTRIC	SU FP	Industrials	OW	215	E	120.3	2%	15%	12%	1.6%	24.9	16.5	51%	21%	42%
ASHTAD GROUP	AHT LN	Industrials	OW	5588	£	28.2	26%	0%	6%	1.4%	17.0	14.1	21%	15%	18%
RYANAIR HOLDINGS	RYA ID	Industrials	OW	21	E	23.1	-	32%	35%	0.0%	9.2	13.0	-29%	13%	37%
AIRBUS	AIR FP	Industrials	OW	161	E	125.3	10%	5%	25%	1.1%	22.7	18.4	23%	7%	25%
MTU AERO ENGINES HLDG.	MTX GR	Industrials	OW	214	E	11.4	24%	13%	14%	0.9%	16.7	18.1	-8%	1%	-12%
STELLANTIS	STLAM IM	Discretionary	OW	24	E	76.5	12%	-5%	1%	6.4%	4.3	4.8	-10%	23%	43%
BMW	BMW GR	Discretionary	OW	107	E	66.8	-35%	-4%	-1%	5.6%	6.3	7.7	-18%	14%	-
INDITEX	ITX SM	Discretionary	OW	44	E	134.7	27%	-	-	-	22.8	24.3	-6%	13%	39%
ADIDAS	ADS GR	Discretionary	OW	224	E	40.8	-154%	-	118%	0.3%	51.4	24.6	109%	36%	37%
RICHEMONT N	CFR SW	Discretionary	OW	128	SF	77.8	78%	-3%	11%	1.9%	18.4	20.4	-10%	10%	-14%
COMPASS GROUP	CPG LN	Discretionary	OW	2169	£	43.5	50%	14%	12%	2.0%	21.2	20.8	2%	0%	6%
COLRUYT GROUP	COLR BB	Staples	OW	41	E	5.2	-27%	62%	10%	2.0%	14.7	17.6	-17%	-5%	62%
ANHEUSER-BUSCH INBEV	ABI BB	Staples	OW	54	E	110.0	-5%	9%	15%	1.4%	16.7	19.5	-14%	-6%	-8%
NOVO NORDISK 'B'	NOVOB DC	Health Care	OW	863	DK	522.5	52%	26%	22%	1.1%	34.8	22.8	53%	18%	49%
ASTRAZENECA	AZN LN	Health Care	OW	10914	£	197.3	9%	12%	14%	2.1%	16.0	17.8	-10%	5%	-9%
SMITH & NEPHEW	SN/ LN	Health Care	OW	967	£	9.8	1%	12%	18%	3.1%	12.3	18.4	-33%	-12%	-19%
UBS GROUP	UBSG SW	Financials	OW	26	SF	91.0	-99%	3427%	107%	2.5%	21.1	10.4	104%	1%	37%
NATWEST GROUP	NWGW LN	Financials	OW	275	£	27.8	38%	-24%	9%	6.2%	6.8	10.2	-33%	33%	1%
ING GROEP	INGA NA	Financials	OW	15	E	49.6	106%	-12%	8%	7.3%	8.0	9.1	-12%	19%	26%
INTESA SANPAOLO	ISP IM	Financials	OW	3	E	60.8	79%	15%	2%	8.8%	7.3	10.1	-28%	22%	35%
LONDON STOCK EXCHANGE GROUP	LSEGL LN	Financials	OW	9036	£	56.2	2%	11%	13%	1.3%	25.1	22.9	9%	-1%	14%
AMUNDI (WI)	AMUN FP	Financials	OW	64	E	12.9	4%	6%	6%	6.4%	9.9	12.7	-22%	3%	8%
DASSAULT SYSTEMES	DSY FP	IT	OW	38	E	50.9	6%	7%	11%	0.7%	28.9	31.5	-8%	-18%	1%
ASML HOLDING	ASML NA	IT	OW	840	E	333.1	41%	-5%	58%	0.7%	37.1	26.9	38%	24%	43%
ASM INTERNATIONAL	ASM NA	IT	OW	545	E	26.6	-8%	6%	41%	0.5%	38.5	16.3	137%	9%	54%
DEUTSCHE TELEKOM	DTE GR	Telecoms	OW	21	E	105.1	-13%	12%	12%	3.7%	11.3	14.2	-20%	-8%	-7%
BT GROUP	BT/A LN	Telecoms	OW	105	£	12.2	9%	-11%	-1%	7.4%	5.6	8.8	-36%	-8%	-35%
RELX	REL LN	Industrials	OW	3329	£	72.5	12%	7%	9%	1.8%	26.4	19.4	36%	2%	27%
HELLOFRESH	HFG GR	Staples	OW	7	E	1.1	-49%	-30%	58%	0.0%	13.7	19.0	-28%	-45%	-72%
RWE	RWE GR	Utilities	OW	32	E	24.1	30%	-56%	-22%	3.1%	12.9	13.0	-1%	-13%	-20%
ENEL	ENEL IM	Utilities	OW	6	E	59.5	15%	10%	0%	7.3%	8.8	12.0	-27%	-11%	2%
SEGRO	SGRO LN	Real Estate	OW	840	£	13.0	6%	6%	7%	3.3%	23.7	25.3	-6%	2%	9%

Source: Datastream, MSCI, IBES, J.P. Morgan, Prices and Valuations as of COB 18th Apr, 2024. 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 cover

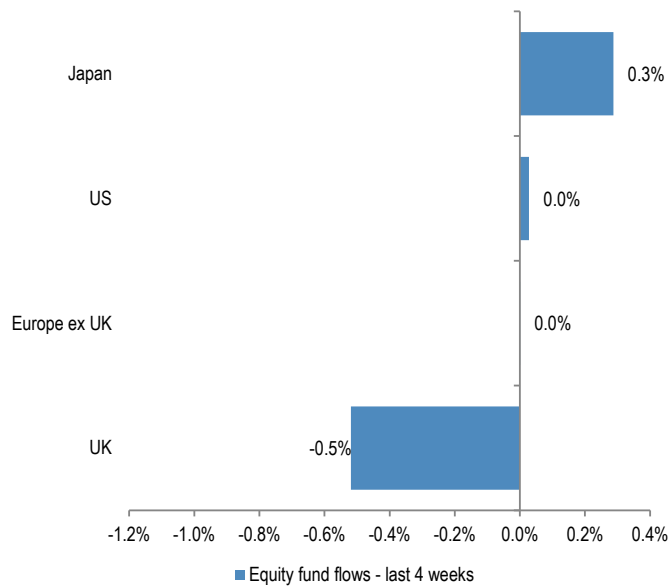
Equity Flows Snapshot

Table 12: DM Equity Fund Flows Summary

Regional equity fund flows										
	\$mn					% AUM				
	1w	1m	3m	ytd	12m	1w	1m	3m	ytd	12m
Europe ex UK	-340	1	-710	-1,505	-12,319	-0.1%	0.0%	-0.2%	-0.5%	-3.9%
UK	-547	-1,397	-6,593	-7,319	-28,699	-0.2%	-0.5%	-2.5%	-2.7%	-10.3%
US	-4,056	3,017	70,428	61,223	205,722	0.0%	0.0%	0.7%	0.6%	2.5%
Japan	-641	2,390	10,081	11,564	24,599	-0.1%	0.3%	1.3%	1.5%	3.7%

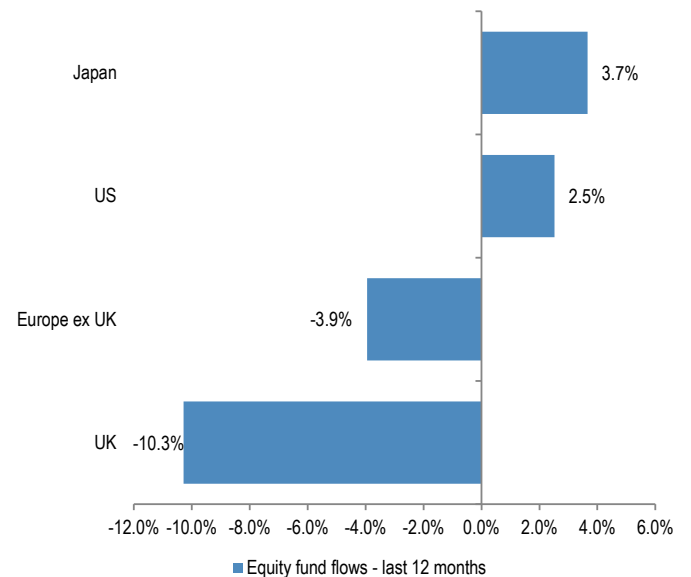
Source: EPFR, as of 17th Apr, 2024

Figure 40: DM Equity Fund flows – last month



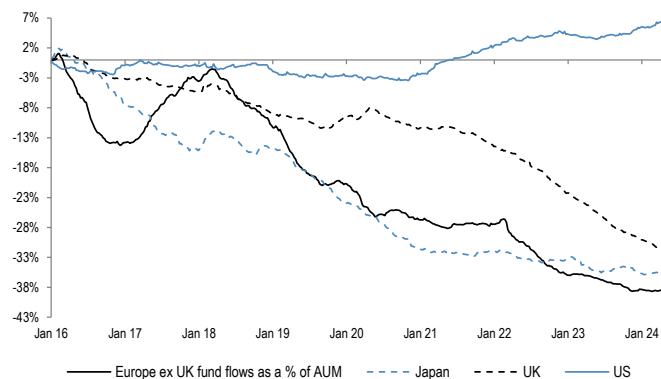
Source: EPFR, Japan includes BoJ purchases.

Figure 41: DM Equity Fund flows – last 12 months



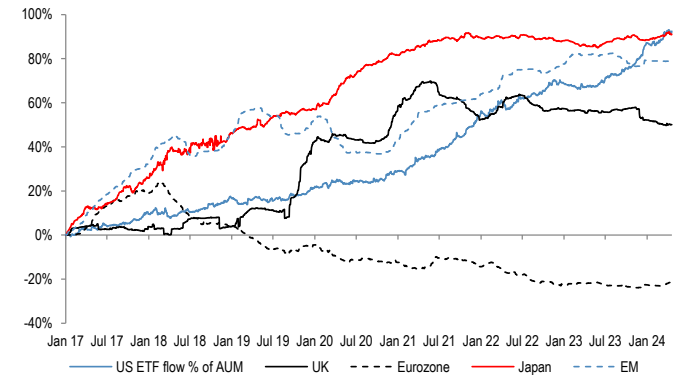
Source: EPFR, Japan includes BoJ purchases.

Figure 42: Cumulative fund flows into regional funds as a percentage of AUM



Source: EPFR, as of 17th Apr, 2024. Japan includes Non-ETF purchases only.

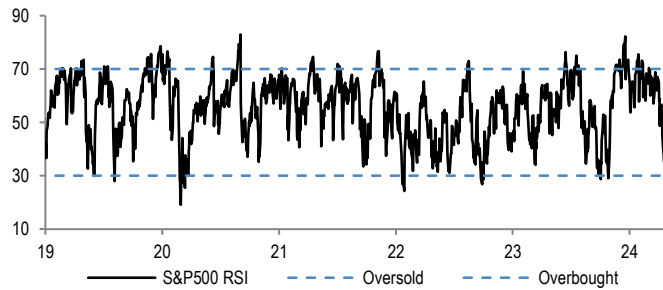
Figure 43: Cumulative fund flows into regional equity ETFs as a percentage of AUM



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

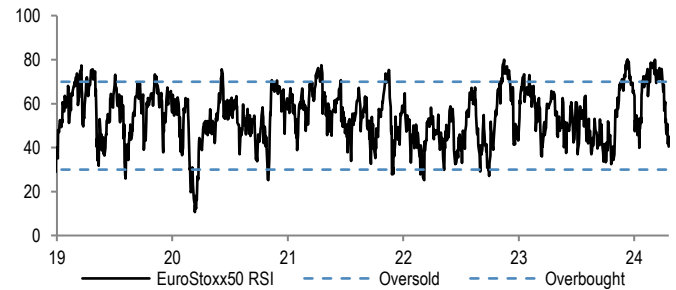
Technical Indicators

Figure 44: S&P500 RSI



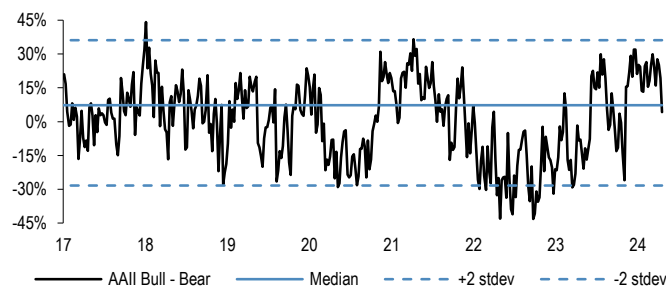
Source: Bloomberg Finance L.P.

Figure 45: EuroStoxx50 RSI



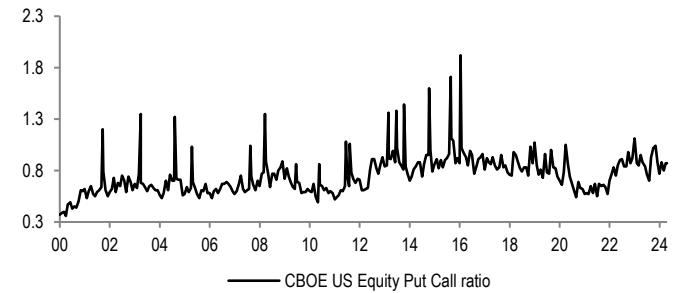
Source: Bloomberg Finance L.P.

Figure 46: AAll Bull-Bear



Source: Bloomberg Finance L.P.

Figure 47: Put-call ratio



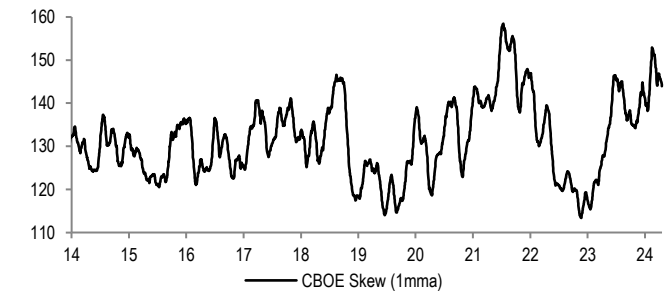
Source: Bloomberg Finance L.P.

Figure 48: Sentix Sentiment Index vs SX5E



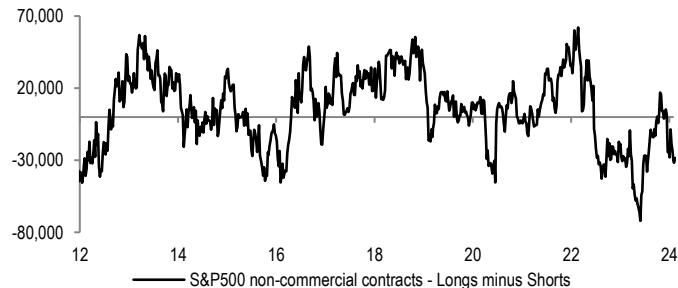
Source: Bloomberg Finance L.P.

Figure 49: Equity Skew



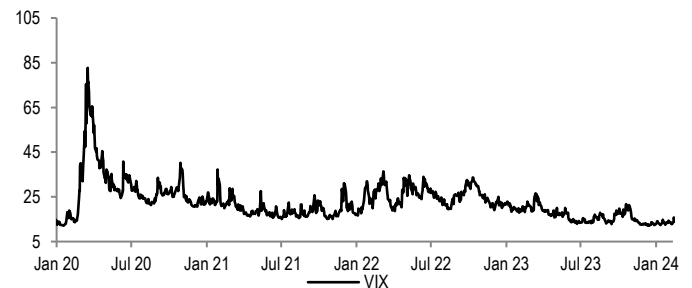
Source: Bloomberg Finance L.P.

Figure 50: Speculative positions in S&P500 futures contracts



Source: Bloomberg Finance L.P.

Figure 51: VIX



Source: Bloomberg Finance L.P.

Performance

Table 13: Sector Index Performances — MSCI Europe

(%change)		Local currency		
Industry Group		4week	12m	YTD
Europe		(2.0)	5.7	5.0
Energy		6.2	8.2	7.8
Materials		(0.0)	4.6	3.3
	Chemicals	(3.0)	3.9	2.6
	Construction Materials	(5.2)	44.9	16.7
	Metals & Mining	9.1	(8.7)	(0.2)
Industrials		(2.5)	17.2	7.7
	Capital Goods	(2.2)	22.5	10.5
	Transport	(1.2)	(12.7)	(11.4)
	Business Svs	(5.0)	7.7	3.2
Consumer Discretionary		(3.2)	0.5	8.5
	Automobile	(1.2)	14.6	14.9
	Consumer Durables	(4.5)	(6.7)	8.2
	Media	(0.9)	12.5	6.1
	Retailing	0.1	5.7	6.8
	Hotels, Restaurants & Leisure	(5.2)	(1.3)	1.3
Consumer Staples		(1.8)	(14.1)	(4.0)
	Food & Drug Retailing	(2.8)	(11.6)	(6.9)
	Food Beverage & Tobacco	(1.5)	(15.8)	(2.9)
	Household Products	(2.2)	(11.1)	(5.4)
Healthcare		(2.5)	0.5	4.8
Financials		(1.6)	15.7	8.0
	Banks	2.0	21.4	12.5
	Diversified Financials	(4.1)	13.7	2.8
	Insurance	(5.2)	9.0	5.2
Real Estate		(1.6)	6.1	(4.4)
Information Technology		(7.3)	26.1	11.3
	Software and Services	(6.4)	33.4	12.1
	Technology Hardware	(5.0)	(3.3)	(3.2)
	Semicon & Semicon Equip	(8.2)	29.2	13.8
Telecommunications Services		(1.8)	(5.9)	0.5
Utilities		0.2	(7.0)	(7.2)

Source: MSCI, Datastream, as at COB 18th Apr, 2024.

Table 14: Country and Region Index Performances

(%change)		Local Currency			US\$		
Country	Index	4week	12m	YTD	4week	12m	YTD
Austria	ATX	1.6	8.0	3.0	(0.3)	5.0	(0.6)
Belgium	BEL 20	1.0	(0.1)	3.2	(0.9)	(2.9)	(0.4)
Denmark	KFX	(3.5)	23.3	13.7	(5.4)	19.6	9.5
Finland	HEX 20	(0.9)	(9.9)	(3.3)	(2.8)	(12.4)	(6.7)
France	CAC 40	(1.9)	6.5	6.4	(3.8)	3.5	2.6
Germany	DAX	(1.9)	12.3	6.5	(3.7)	9.2	2.7
Greece	ASE General	(3.4)	23.3	6.8	(5.3)	19.8	3.0
Ireland	ISEQ	0.4	17.2	13.5	(1.5)	14.0	9.5
Italy	FTSE MIB	(1.3)	21.5	11.6	(3.2)	18.1	7.7
Japan	Topix	(4.2)	31.2	13.1	(6.1)	13.6	3.2
Netherlands	AEX	(1.1)	13.4	10.0	(3.0)	10.2	6.1
Norway	OBX	2.8	5.9	4.2	(0.5)	0.5	(4.0)
Portugal	BVL GEN	2.2	(11.4)	(11.1)	0.2	(13.9)	(14.2)
Spain	IBEX 35	(0.9)	14.3	6.6	(2.8)	11.1	2.8
Sweden	OMX	(1.3)	11.6	5.1	(5.6)	5.2	(3.2)
Switzerland	SMI	(4.0)	(1.1)	0.8	(5.4)	(2.7)	(7.0)
United States	S&P 500	(4.4)	20.6	5.1	(4.4)	20.6	5.1
United States	NASDAQ	(4.9)	28.4	3.9	(4.9)	28.4	3.9
United Kingdom	FTSE 100	(0.1)	(0.4)	1.9	(1.8)	(0.3)	(0.6)
EMU	MSCI EMU	(2.0)	8.9	6.9	(3.9)	5.9	3.1
Europe	MSCI Europe	(2.0)	5.7	5.0	(3.8)	3.4	0.6
Global	MSCI AC World	(4.0)	17.4	5.1	(4.5)	15.7	3.5

Source: MSCI, Datastream, as at COB 18th Apr, 2024.

Earnings

Table 15: IBES Consensus EPS Sector Forecasts — MSCI Europe

	EPS Growth (%yoy)			
	2023	2024E	2025E	2026E
Europe	(3.6)	3.5	10.2	9.1
Energy	(31.6)	(4.5)	3.1	4.0
Materials	(38.8)	5.8	12.5	7.1
Chemicals	(38.9)	24.3	19.1	12.2
Construction Materials	11.8	11.8	9.9	7.7
Metals & Mining	(46.2)	(6.5)	5.6	2.0
Industrials	0.9	7.4	13.7	11.9
Capital Goods	22.2	11.7	13.6	11.7
Transport	(55.0)	(24.3)	19.1	15.4
Business Svs	3.2	8.8	11.0	10.9
Discretionary	8.0	2.5	10.6	9.6
Automobile	3.3	(3.0)	5.4	6.5
Consumer Durables	(5.8)	4.7	15.1	13.3
Media	1.2	7.4	10.2	10.7
Retailing	52.6	13.4	17.2	8.4
Hotels,Restaurants&Leisure	85.6	21.4	21.0	16.6
Staples	2.5	2.6	8.9	8.0
Food & Drug Retailing	4.7	4.8	11.8	8.6
Food Beverage & Tobacco	2.1	1.4	8.9	8.1
Household Products	2.9	5.0	7.7	7.5
Healthcare	1.2	6.1	14.4	10.4
Financials	15.5	5.7	8.0	10.0
Banks	28.5	0.8	4.6	7.2
Diversified Financials	(20.0)	16.4	22.6	24.5
Insurance	11.7	12.6	8.3	8.1
Real Estate	5.8	2.9	3.5	2.5
IT	14.0	(5.4)	30.0	15.3
Software and Services	18.5	(0.1)	20.7	14.0
Technology Hardware	(20.6)	9.1	9.6	9.7
Semicon & Semicon Equip	27.9	(12.9)	44.1	17.6
Telecoms	(8.9)	10.5	10.8	8.8
Utilities	(0.2)	(0.2)	1.1	2.2

Source: IBES, MSCI, Datastream. As at COB 18th Apr, 2024.

Table 16: IBES Consensus EPS Country Forecasts

Country	Index	EPS growth (%change)			
		2023	2024E	2025E	2026E
Austria	ATX	(20.6)	(0.7)	5.1	4.6
Belgium	BEL 20	13.3	(6.3)	12.2	13.3
Denmark	Denmark KFX	(14.8)	26.4	22.1	17.9
Finland	MSCI Finland	(25.1)	3.3	12.2	8.1
France	CAC 40	(2.4)	2.5	8.8	8.2
Germany	DAX	0.2	1.8	12.1	10.9
Greece	MSCI Greece	4.2	3.6	2.4	16.6
Ireland	MSCI Ireland	32.5	(1.8)	3.1	6.2
Italy	MSCI Italy	8.6	2.0	2.8	4.0
Netherlands	AEX	(1.6)	0.9	12.9	8.8
Norway	MSCI Norway	(40.4)	3.0	6.1	2.2
Portugal	MSCI Portugal	16.9	14.2	4.8	5.3
Spain	IBEX 35	8.2	2.4	4.1	6.4
Sweden	OMX	31.6	1.2	8.3	6.8
Switzerland	SMI	(4.6)	9.8	13.9	10.7
United Kingdom	FTSE 100	(10.7)	0.9	8.1	8.4
EMU	MSCI EMU	3.5	3.1	10.2	9.0
Europe ex UK	MSCI Europe ex UK	0.4	4.4	11.1	9.4
Europe	MSCI Europe	(3.6)	3.5	10.2	9.1
United States	S&P 500	2.3	9.3	14.4	11.7
Japan	Topix	2.8	15.4	9.8	9.3
Emerging Market	MSCI EM	(7.5)	19.8	15.4	11.1
Global	MSCI AC World	(0.2)	9.0	13.1	10.8

Source: IBES, MSCI, Datastream. As at COB 18th Apr, 2024** Japan refers to the period from March in the year stated to March in the following year – EPS post-goodwill

Valuations

Table 17: IBES Consensus European Sector Valuations

	P/E			Dividend Yield			EV/EBITDA			Price to Book		
	2024e	2025e	2026e	2024e	2025e	2026e	2024e	2025e	2026e	2024e	2025e	2026e
Europe	13.7	12.4	11.4	3.4%	3.6%	3.9%	8.1	7.5	7.0	1.9	1.8	1.6
Energy	8.0	7.8	7.5	5.3%	5.2%	5.5%	3.4	3.4	3.3	1.2	1.1	1.1
Materials	15.8	14.1	13.2	3.1%	3.4%	3.6%	7.7	6.9	6.7	1.7	1.6	1.5
Chemicals	23.4	19.7	17.5	2.7%	2.9%	3.0%	11.5	10.4	9.6	2.4	2.3	2.1
Construction Materials	13.1	12.0	11.1	2.9%	3.1%	3.3%	7.7	7.1	6.5	1.7	1.6	1.5
Metals & Mining	10.9	10.3	10.2	3.8%	4.1%	4.5%	5.2	4.5	4.7	1.3	1.2	1.1
Industrials	19.1	16.8	15.0	2.4%	2.6%	2.9%	10.3	9.2	8.3	3.2	3.0	2.7
Capital Goods	19.0	16.8	15.0	2.3%	2.5%	2.8%	10.7	9.5	8.6	3.4	3.2	2.9
Transport	16.9	14.2	12.3	3.4%	3.7%	3.7%	7.3	6.6	5.9	1.6	1.6	1.5
Business Svs	20.9	18.9	17.0	2.5%	2.7%	2.9%	12.8	11.7	10.8	6.0	5.5	4.9
Discretionary	13.1	11.9	10.8	2.7%	3.0%	3.3%	5.6	5.1	4.8	1.9	1.8	1.5
Automobile	6.3	6.0	5.6	4.9%	5.2%	5.5%	2.0	1.8	1.7	0.8	0.7	0.6
Consumer Durables	23.5	20.5	18.1	1.8%	2.0%	2.3%	14.5	12.9	11.5	4.3	3.8	3.5
Media & Entertainment	16.3	14.8	13.4	2.3%	2.5%	2.7%	11.9	10.0	9.0	1.8	1.8	1.9
Retailing	15.1	12.9	11.9	2.4%	2.6%	2.9%	10.5	9.6	9.0	2.9	2.8	2.2
Hotels, Restaurants & Leisure	22.1	18.2	15.6	2.2%	2.6%	3.0%	12.4	10.4	9.5	4.2	3.8	3.5
Staples	16.2	14.9	13.8	3.2%	3.4%	3.7%	10.6	9.9	9.1	2.8	2.6	2.5
Food & Drug Retailing	11.4	10.2	9.4	4.3%	4.6%	5.0%	6.0	5.6	5.3	1.5	1.5	1.4
Food Beverage & Tobacco	16.0	14.7	13.6	3.5%	3.8%	4.0%	10.5	9.8	9.0	2.5	2.4	2.3
Household Products	18.7	17.4	16.2	2.5%	2.7%	2.8%	13.5	12.5	11.8	4.1	3.8	3.8
Healthcare	17.1	15.0	13.6	2.4%	2.7%	3.0%	12.4	10.9	9.6	3.4	3.1	2.8
Financials	8.9	8.2	7.5	5.6%	5.7%	6.2%	-	-	-	1.1	1.0	0.9
Banks	7.1	6.7	6.3	7.2%	7.1%	7.6%	-	-	-	0.8	0.7	0.7
Diversified Financials	14.3	11.7	9.6	2.4%	2.7%	3.0%	-	-	-	1.3	1.4	1.4
Insurance	10.2	9.4	8.7	5.7%	6.1%	6.6%	-	-	-	1.6	1.5	1.5
Real Estate	13.4	13.0	12.6	4.3%	4.5%	4.8%	-	-	-	0.8	0.8	0.8
IT	28.4	21.8	18.9	1.2%	1.3%	1.5%	18.6	14.4	12.6	4.9	4.4	3.9
Software and Services	29.0	24.0	21.1	1.3%	1.4%	1.6%	19.6	15.8	13.9	4.4	4.0	3.6
Technology Hardware	14.8	13.5	12.3	2.7%	2.8%	3.0%	8.7	8.1	7.0	1.8	1.7	1.6
Semicon & Semicon Equip	33.0	22.9	19.5	0.9%	1.0%	1.2%	22.5	15.6	13.5	8.1	6.7	5.6
Communication Services	13.6	12.3	11.3	4.4%	4.5%	4.8%	6.7	6.2	5.8	1.4	1.3	1.3
Utilities	11.8	11.7	11.4	5.2%	5.3%	5.6%	7.9	8.1	8.2	1.5	1.4	1.3

Source: IBES, MSCI, Datastream. As at COB 18th Apr, 2024.

Table 18: IBES Consensus P/E and 12-Month Forward Dividend Yields — Country Forecasts

Country	Index	P/E				Dividend Yield
		12mth Fwd	2024E	2025E	2026E	12mth Fwd
Austria	ATX	7.8	7.9	7.5	7.0	5.9%
Belgium	BEL 20	15.1	15.7	14.0	12.3	3.0%
Denmark	Denmark KFX	26.6	28.6	23.4	19.9	1.7%
Finland	MSCI Finland	14.4	15.0	13.4	12.4	4.6%
France	CAC 40	13.2	13.6	12.5	11.5	3.3%
Germany	DAX	12.0	12.5	11.1	10.0	3.3%
Greece	MSCI Greece	29.9	30.1	29.4	24.3	1.8%
Ireland	MSCI Ireland	11.1	11.2	10.9	10.2	3.5%
Italy	MSCI Italy	9.0	9.1	8.9	8.5	5.5%
Netherlands	AEX	15.3	15.8	14.0	13.2	2.5%
Norway	MSCI Norway	10.8	11.0	10.4	10.2	6.2%
Portugal	MSCI Portugal	13.9	14.1	13.4	12.8	4.2%
Spain	IBEX 35	10.8	11.0	10.5	9.9	4.8%
Sweden	OMX	15.2	15.6	14.4	13.6	3.8%
Switzerland	SMI	16.3	17.0	15.0	13.5	3.5%
United Kingdom	FTSE 100	11.1	11.4	10.5	9.7	4.1%
EMU	MSCI EMU	13.1	13.5	12.3	11.3	3.4%
Europe ex UK	MSCI Europe ex UK	14.1	14.6	13.1	12.0	3.4%
Europe	MSCI Europe	13.2	13.7	12.4	11.4	3.6%
United States	S&P 500	20.0	21.2	18.5	16.6	1.5%
Japan	Topix	14.6	16.2	14.7	13.5	2.3%
Emerging Market	MSCI EM	12.2	12.8	10.7	9.9	3.1%
Global	MSCI AC World	17.5	18.3	15.6	14.7	2.1%

Source: IBES, MSCI, Datastream. As at COB 18th Apr, 2024; ** 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 19: Economic Outlook in Summary

	Real GDP			Real GDP						Consumer prices			
	% oya			% over previous period, saar						% oya			
	2023E	2024E	2025E	3Q23	4Q23	1Q24E	2Q24E	3Q24E	4Q24E	4Q23	2Q24E	4Q24E	2Q25E
United States	2.5	2.4	1.7	4.9	3.4	2.3	1.5	1.0	1.0	3.2	3.5	3.3	2.4
Eurozone	0.5	0.4	1.0	-0.2	-0.2	0.5	0.7	0.7	0.7	2.7	2.6	2.2	1.7
United Kingdom	0.1	0.2	0.1	-0.5	-1.2	1.5	0.8	0.0	-0.5	4.2	1.9	2.4	2.5
Japan	1.9	0.7	0.8	-3.2	0.4	1.0	1.7	1.0	0.8	2.9	3.2	3.1	2.6
Emerging markets	4.2	4.1	3.6	5.8	3.9	5.5	3.4	3.6	3.6	3.7	4.1	3.5	3.3
Global	2.7	2.6	2.3	3.6	2.6	3.3	2.1	2.1	2.0	3.4	3.5	3.1	2.7

Source: J.P. Morgan economic research J.P. Morgan estimates, as of COB 11th Apr, 2024

Table 20: Official Rates Outlook

	Official interest rate	Current	Last change (bp)	Forecast next change (bp)	Forecast for			
					Jun 24	Sep 24	Dec 24	Mar 25
					United States	Federal funds rate	5.50	26 Jul 23 (+25bp)
Eurozone	Depo rate	4.00	14 Sep 23 (+25bp)	Jun 24 (-25bp)	3.75	3.50	3.00	2.50
United Kingdom	Bank Rate	5.25	03 Aug 23 (+25bp)	Aug 24 (-25bp)	5.25	5.00	4.50	4.00
Japan	Pol rate IOER	0.10	19 Mar 24 (+20bp)	3Q24 (+15bp)	0.10	0.25	0.50	0.50

Source: J.P. Morgan estimates, Datastream, as of COB 11th Apr, 2024

Table 21: 10-Year Government Bond Yield Forecasts

10 Yr Govt BY	19-Apr-24	Forecast for end of			
		Jun 24	Sep 24	Dec 24	Mar 25
US	4.59	4.15	4.05	4.00	3.90
Euro Area	2.47	2.20	2.05	1.90	1.80
United Kingdom	4.25	4.05	3.95	3.80	3.65
Japan	0.85	0.85	1.05	1.30	1.30

Source: J.P. Morgan estimates, Datastream, forecasts as of COB 11th Apr, 2024

Table 22: Exchange Rate Forecasts vs. US Dollar

Exchange rates vs US\$	18-Apr-24	Forecast for end of			
		Jun 24	Sep 24	Dec 24	Mar 25
EUR	1.07	1.05	1.05	1.09	1.12
GBP	1.24	1.22	1.22	1.25	1.29
CHF	0.91	0.92	0.91	0.89	0.87
JPY	155	148	146	144	142
DXY	106.2	106.4	106.1	102.9	100.3

Source: J.P. Morgan estimates, Datastream, forecasts as of COB 11th Apr, 2024

Sector, Regional and Asset Class Allocations

Table 23: J.P. Morgan Equity Strategy — European Sector Allocation

	MSCI Europe Weights	Allocation	Deviation	Recommendation
Energy	5.6%	8.0%	2.4%	OW
Materials	7.0%	6.0%	-1.0%	N
				UW
				N
				N
Industrials	15.8%	14.0%	-1.8%	N
				UW
				OW
				N
				N
Consumer Discretionary	9.1%	7.0%	-2.1%	UW
				UW
				N
				UW
				UW
				UW
Consumer Staples	11.7%	13.0%	1.3%	OW
				UW
				OW
				OW
				OW
Healthcare	16.0%	18.0%	2.0%	OW
Financials	18.1%	14.0%	-4.1%	UW
				UW
				N
Real Estate	0.9%	2.0%	1.1%	OW
Information Technology	7.1%	7.0%	-0.1%	N
				N
				N
Communication Services	4.5%	5.0%	0.5%	OW
				OW
				N
Utilities	4.4%	6.0%	1.6%	OW
				N
				OW
	100.0%	100.0%	0.0%	Balanced

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

Table 24: J.P. Morgan Equity Strategy — Global Regional Allocation

	MSCI Weight	Allocation	Deviation	Recommendation
EM	10.0%	10.0%	0.0%	Neutral
DM	90.0%	90.0%	0.0%	Neutral
US	70.9%	68.0%	-2.9%	Neutral
Japan	6.2%	8.0%	1.8%	Overweight
Eurozone	8.6%	8.0%	-0.6%	Neutral
UK	3.8%	6.0%	2.2%	Overweight
Others*	10.5%	10.0%	-0.5%	Neutral
	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 25: J.P. Morgan Equity Strategy — European Regional Allocation

	MSCI Weight	Allocation	Deviation	Recommendation
Eurozone	51.0%	48.0%	-3.0%	Neutral
United Kingdom	22.6%	25.0%	2.4%	Overweight
Others**	26.5%	27.0%	0.5%	Overweight
	100.0%	100.0%		Balanced

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

Table 26: 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: MSCI, J.P. Morgan

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

Parts of this report use data drawn from SmartBuzz which is available on Morgan Markets. SmartBuzz is an NLP processing framework that tracks market themes using a taxonomy curated to capture market relevant topics with the help of JPM's experts and AI. We combine sentiment analysis with the theme exposure of stocks which can be rolled up to sectors and countries. The news feed is curated from LexisNexis and we use Earnings Call Transcripts from S&P/CapIQ. Please contact us for more information.

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 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 duration of the price target indicated in this report, we expect this stock will outperform the average total return of the stocks in the Research Analyst’s, or the Research Analyst’s team’s, coverage universe); Neutral (over the duration of the price target indicated in this report, we expect this stock will perform in line with the average total return of the stocks in the Research Analyst’s, or the Research Analyst’s team’s, coverage universe); and Underweight (over the duration of the price target indicated in this report, we expect this stock will underperform the average total return of the stocks in the Research Analyst’s, or the Research Analyst’s team’s, coverage universe. NR is Not Rated. In this case, 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 Research Analysts’ coverage universe. If it does not appear in the Important Disclosures section of this report, the certifying Research Analyst’s coverage universe can be found on J.P. Morgan’s Research website, <https://www.jpmm.com>.

J.P. Morgan Equity Research Ratings Distribution, as of April 06, 2024

	Overweight (buy)	Neutral (hold)	Underweight (sell)
J.P. Morgan Global Equity Research Coverage*	48%	39%	14%
IB clients**	49%	45%	35%
JPMS Equity Research Coverage*	46%	42%	12%
IB clients**	70%	66%	52%

*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.jpmm.com>, contact the primary analyst or your J.P. Morgan representative, or email 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.jpmm.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.jpmm.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 J.P. Morgan'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 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

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 Participant of ASX Limited, a Clearing and Settlement Participant of ASX Clear Pty Limited and a Clearing Participant of ASX Clear (Futures) Pty Limited. 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 Comissao de Valores Mobiliarios (CVM) and by the Central Bank of Brazil. Ombudsman J.P. Morgan: 0800-7700847 / 0800-7700810 (For Hearing Impaired) / 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 authorised as a credit institution by the Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB). 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.jpmipl.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; +912261573225. Grievance Officer: Ramprasadh K, jpmipl.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. **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. **Singapore:** This material is issued and distributed in Singapore by or through J.P. Morgan Securities Singapore Private Limited (JPMS) [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 JPMS or JPMCB Singapore in respect of any matters arising from, or in connection with, the material. **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 Conduct Authority (FSCA). **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”) ©2024. 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)

Sustainalytics: Certain information, data, analyses and opinions contained herein are reproduced by permission of Sustainalytics and: (1) includes the proprietary information of Sustainalytics; (2) may not be copied or redistributed except as specifically authorized; (3) do not constitute investment advice nor an endorsement of any product or project; (4) are provided solely for informational purposes; and (5) are not warranted to be complete, accurate or timely. Sustainalytics is not responsible for any trading decisions, damages or other losses related to it or its use. The use of the data is subject to conditions available at <https://www.sustainalytics.com/legal-disclaimers>. ©2024 Sustainalytics. All Rights Reserved.

"Other Disclosures" last revised April 06, 2024.

Copyright 2024 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.

Completed 22 Apr 2024 03:42 AM BST

Disseminated 22 Apr 2024 03:43 AM BST