

Equity Strategy

The underperformance of Consumer Cyclical stocks can have legs; Implications of CESI moving negative

- The consensus view in the first half of the year has been to buy Cyclical sectors on PMI rebound, and also to favour consumer exposure on an improvement in real disposable incomes. While we have some sympathy with the view that European consumers could fare better this year than last, on falling inflation and on rate cuts, and clearly the Eurozone consumer wasn't maxed out, with still elevated net wealth position, we have argued through Q2 to play a barbell of Defensives together with Mining - see [report](#). Stylewise, we entered the year again **OW Growth vs Value**, same as last year, and keep that view, for now. Also, one should note the **terrible performance of small caps everywhere again this year** - behind by 15% in the US, 3% in Europe and 11% in Japan so far in 2024. Within this, we have very recently advised to finally turn more bullish on some **selected small caps, such as FTSE250 in the UK** - see [report](#), to take advantage of the heavy prior underperformance and political changes.
- **On the short side**, we have specifically **focused on Consumer Cyclical plays** - such as **Autos and Luxury**, and now the question is whether one should use the recent weakness in the space to add - top chart. We think that **there is likely further underperformance ahead**, and stay cautious on Consumer space more broadly, on likely unwind of prior strong pricing power, building margin squeeze, likely softening final demand and potential labour market weakening:
- **Autos (UW)**: Autos have significantly underperformed in the past few months, on weak commentary from the OEMs. Key issues being flagged are: inventories have normalised, demand is softer, prices in ICE are still holding up, but mix is weaker, and China keeps getting tougher. We stay UW Autos, expecting continued pricing weakness and rising China competition.
- **Luxury (N)**: Luxury has also underperformed, and we think the sector will continue to struggle on softer pricing. Luxury stocks are still expensive relative to the market and our analysts see few positive catalysts for 2H.
- **Discretionary Retail (UW)**: Retailers have seen a series of profit warnings recently, including H&M and Nike. While higher freight costs and cotton prices have been key headwinds so far, potential consumer weakness going forward is likely to lead to further disappointments.
- **Hotels, Restaurants & Leisure (UW)**: the high-end segment is holding up, but the low-end segment is showing signs of weakness. RevPar is still robust, but could come under pressure if pricing and occupancy rates roll over.
- **Airlines (UW)**: A combination of higher oil prices, extra capacity and more downbeat demand expectations have weighed on Airlines stocks, down 20% relative in last 3-4 months. We believe these will continue to disappoint.
- Bigger picture, **CESIs have moved negative recently in a number of key regions, in US, Eurozone, China and Japan**. Typically, when CESIs deteriorate, sector leadership is lower beta. Apart from Cyclicals, Financials in particular tended to consistently underperform when CESIs move lower. Banks could also be seeing peaking profits on ECB cuts - bottom chart.

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

Autos, Luxury, Airlines and Hotels & Leisure sectors have all been softening of late. We think this continues



CESIs in all key regions have moved negative most recently... this is typically a problem for Cyclicals and Banks



Banks profits increased on rising rates in the last 4 years, this is turning now



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

The underperformance of Consumer Cyclical stocks can have legs; Implications of CESI moving negative	3
Equity Strategy Key Calls and Drivers	4
Top Picks	5
Equity Flows Snapshot.....	6
Technical Indicators.....	7
Performance	8
Earnings	9
Valuations.....	10
Economic, Interest Rate and Exchange Rate Outlook.....	12
Sector, Regional and Asset Class Allocations.....	13

The underperformance of Consumer Cyclical stocks can have legs; Implications of CESI moving negative

Figure 1: Global Composite PMI



Source: S&P Global

Global growth backdrop had been improving since Q4 of last year, with Global PMIs moving up. The fall in the June reading comes after 7 months of sequential advance in the PMI data. The upmove earlier in the year has prompted many to look for a Cyclical rally and the broadening in leadership, regionally and stylewise.

Figure 2: Eurozone retail sales and consumer confidence



Source: Bloomberg Finance L.P.

The consensus view was also to be bullish on consumer on the likely improvement in real disposable incomes.

Figure 3: UK, Germany and France household savings rate



Source: Bloomberg Finance L.P.

We do have sympathy with some better European consumer performance, as that cohort has not spent much of the accumulated savings yet.

The market leadership stayed quite narrow in 1H, though...

Figure 4: S&P500 and S&P500 equal weighted ytd performance



Source: Bloomberg Finance L.P.

Despite the optimism at the start of the year, equal weighted SPX has peaked already in March, with all the gains in the past few months driven by just a few stocks.

Figure 5: MSCI US and European Growth vs Value performance



Source: Datastream

We entered this year again OW Growth vs Value style, same as in 2023, and note that Growth strongly outperformed in the US, and also in Europe.

Table 1: Key regions small vs large cap ytd performance

YTD performance		
MSCI US	Small Caps	0.8%
	Large Caps	15.7%
MSCI Eurozone	Small Caps	1.9%
	Large Caps	8.3%
MSCI UK	Small Caps	4.0%
	Large Caps	6.4%
MSCI Japan	Small Caps	13.0%
	Large Caps	24.4%

Source: Datastream

We have also kept UW on small caps in 1H again, after 2 years of UW of small caps. The weakness in small caps has been clear everywhere again this year, heavily behind large caps.

Figure 6: MSCI Europe sectors Q1 '24 and Q2 '24 relative performance



Source: Datastream

Cyclical sectors did perform better in 1Q this year, but have since struggled to lead.

...within this, we have last month advised to add to selective small caps, in particular to UK small caps - FTSE250...

Figure 7: FTSE250 relative to FTSE100



Source: Datastream

While we remain bearish on US small caps, and keep OW on Nasdaq vs Russell2000, we do think in some international markets small caps could do better in 2H.

Figure 8: FTSE100 vs FTSE250 since Jan'21



Source: Datastream

For UK in particular, we reversed our long-lasting large cap preference last month, expecting UK election outcome to help small caps from here.

Figure 9: MSCI UK Small vs large cap performance around BoE first cut



Source: Datastream

BoE is set to start easing from August, which typically helped turn the fortunes of the group.

...Consumer Cyclicals in particular struggled this year... should one use this as an opportunity to add?

Figure 10: MSCI Europe cyclical sectors ytd relative performance



Source: Datastream

Ytd, European Autos, Airlines, Luxury, Hotels have all performed poorly. The question is whether the weakness in some

of these consumer cyclical sectors presents an opportunity for investors? While we have some sympathy in the idea that the European consumer could fare better this year than last, as inflationary pressures ease and policy rates are cut, we believe that the recent underperformance of these stocks could continue, as tailwinds in the form of strong pricing power and elevated margins fade.

We do not think so, and stay UW most consumer groups - Labour market could weaken in the US...

Figure 11: US Initial Jobless Claims



Source: Bloomberg Finance L.P.

In the US, initial jobless claims have been trending higher over the last couple of months.

Figure 12: US Continuing Jobless Claims



Source: Bloomberg Finance L.P.

Continuing claims have been up in each of the last 9 weeks.

Figure 13: US Quits rate vs Atlanta Fed wage tracker



Source: Bloomberg Finance L.P.

The downshift in number of employees quitting in the US is consistent with slower pace of wage growth going forward.

Figure 14: US Manufacturing and Services ISM - Employment



Source: Bloomberg Finance L.P.

Business surveys have also been pointing to a softening labour market. The employment component of ISM Manufacturing was holding up so far but weakened in the the month of June, and Services employment is downshifting.

Figure 15: Eurozone Manufacturing and Services PMI - employment



Source: S&P Global

Similar weakness is evident in the Eurozone business surveys, as well.

Weaker end demand could also hurt margins and pricing power

Figure 16: MSCI Europe Consumer Discretionary 12m trailing EBIT margin



Source: Datastream

The supply-demand distortions driven by the COVID-era shutdowns drove margins for consumer sectors to record highs. These are starting to normalize.

Table 2: JPM Real GDP projections

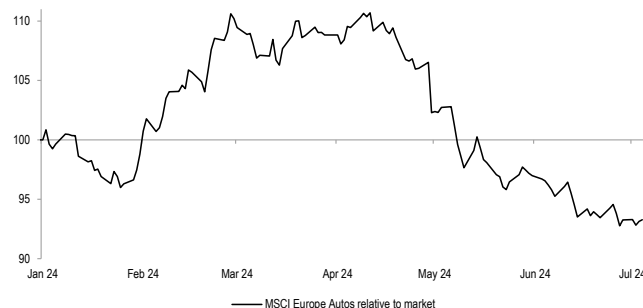
	Real GDP					
	% over previous period, saar					
	4Q23	1Q24	2Q24E	3Q24E	4Q24E	1Q25E
United States	3.4	1.4	2.0	1.0	1.0	2.0
Eurozone	-0.2	1.3	1.5	1.5	1.0	1.0
United Kingdom	-1.2	2.9	2.0	1.0	1.0	0.8
Japan	0.4	-1.8	1.5	1.0	0.8	0.6
Emerging markets	4.1	6.1	3.0	3.5	3.5	3.4
Global	2.7	3.2	2.2	2.2	2.1	2.3

Source: J.P. Morgan

Activity is expected to moderate in the coming quarters. All of these point to a more modest pricing environment for the consumer sectors.

...reiterate our cautious view on Autos...

Figure 17: MSCI Europe Autos relative



Source: Bloomberg Finance

Auto stocks have significantly underperformed over the past few months.

Figure 18: European Autos EPS/Sales



Source: Datastream

EBIT margins for the sector are still elevated in a historical context, and will be under pressure from a rollover in pricing and more Chinese competition. Inventory levels have normalized.

Figure 19: Car buying Incentives in China (%)



Source: JPM European Autos Research team

Incentives are going up.

Figure 20: Weighted average discounts across Europe



Source: JPM European Autos Research team

Pricing power is also coming under pressure.

...Luxury...

Figure 21: MSCI Europe Luxury price relative



Source: Datastream

Luxury has also struggled in the past months, and we have cautioned that pricing in the sector could come under pressure - see [report](#). Our sector analysts [flag](#) muted earnings momentum for the group, and see few positive catalysts for 2H. The key stock within the sector, LVMH, is likely to see topline soften for most segments. This, coupled with FX headwinds, should lead to EBIT margin pressure - see [report](#).

Figure 22: European Luxury 12m Fwd P/E relative



Source: IBES

Luxury stocks still trade outright expensive relative to the market.

...Retail...

Table 3: Profit warnings so far

Company Name	Company Ticker	Commentary	Date	1Day Perf relative to market, %	Sector
YOUGOV PLC	YOU LN	YouGov shares plunge after polling and data analytics group warned that annual profits would fall short of forecasts	20 Jun	-47.2%	Communication Services
SIG PLC	SHILN	SIG profit warns due to challenging market conditions	24 Jun	-5.8%	Industrials
AIRBUS SE	AIRFP	Airbus shares fall as plane maker cuts profit forecast as its supply chain disruptions worsened	25 Jun	-9.2%	Industrials
POOL CORP	POOL US	Pool shares slump after swimming pool supplies distributor slashes earnings forecast citing challenges in discretionary parts of its business amid cautious consumer spending	25 Jun	-8.4%	Consumer Discretionary
SOUTHWEST AIRLINES CO	LUV US	Southwest Air cuts revenue outlook as CEO fends off activist	26 Jun	-0.4%	Industrials
WALGREENS BOOTS ALLIANCE INC	WBA US	Walgreens shares plunge on outlook cut and more stores closings in continued challenging environment	27 Jun	-22.2%	Consumer Staples
HENNES & MAURITZ AB-B SHS	HMB SS	H&M profit warns due to a challenging macro environment that will influence purchasing costs and sales revenues	27 Jun	-12.5%	Consumer Discretionary
NIKE INC -CL B	NKE US	Nike tumbles after warning that it expects sales to drop 10% during its current quarter	28 Jun	-19.6%	Consumer Discretionary
AIR FRANCE-KLM	AFKLM	Air France expects revenue and profit hit as fliers avoid Paris Olympics	01 Jul	-1.9%	Industrials
NANOCO GROUP PLC	NANO LN	Nanoco Group profit warns because of order delay	02 Jul	-24.3%	Information Technology
NORWEGIAN AIR SHUTTLE AS	NASNO	Norwegian Air shares slide after the carrier cut its EBIT outlook, citing higher costs, softer traffic demand and aircraft delivery delays from Boeing.	04 Jul	-16.5%	Industrials

Source: Bloomberg Finance L.P.

A number of retailers have profit warned in recent weeks.

Figure 23: World Container prices



Source: Bloomberg Finance L.P.

Elevated freight rates have been hurting the sector.

Figure 24: DXY ytd



Source: Bloomberg Finance L.P.

The sector also struggles in a stronger dollar environment.

...Hotels, Restaurants and Leisure...

Figure 25: MSCI Europe Hotels, Restaurants & Leisure relative performance



Source: Bloomberg Finance L.P.

The hotels sector has underperformed the broader index by 7% year to date.

Figure 26: Rev Par - Key Regions

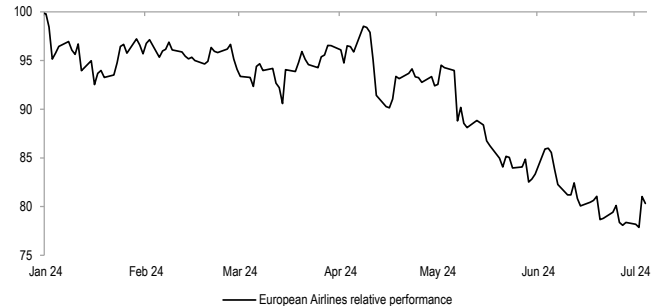


Source: J.P. Morgan European Leisure, Hotels & Gaming research

We note that metrics such as RevPar are holding up relatively well. Our sector analysts believe that this is largely due to the “high-end” segment performing better, while the low-end segment is under pressure. We believe that the sector could come under pressure if pricing and occupancy rates fall from here.

and Airlines

Figure 27: Bloomberg European Airlines relative performance



Source: Bloomberg Finance L.P.

Higher oil prices, capacity growth and weakening demand have weighed on Airlines.

Figure 28: Transatlantic capacity growth, in ASKs yoy



Source: J.P. Morgan European Airlines Research

For the Network Carriers, pricing for Q2 could end up softer than expected on elevated capacity growth, a mixed demand backdrop by long-haul route/cabin, and any impact from LCC discounting/short-haul leisure weakness. Softer pricing in Q2 would come at a time when costs remain elevated for the Networks, and may call into question whether peak summer leisure demand will be strong enough to grow pricing in Q3 - see [report](#) from our Airlines analyst.

Recent commentary from the LCCs (low cost carriers) has also focused on a more mixed pricing outlook for short-haul leisure.

Economic surprise indices have turned negative in a number of key regions

Figure 29: Key regions CESIs



Source: Bloomberg Finance L.P.

Big picture, CESIs have turned negative in most key regions.

Table 4: MSCI Europe sectors relative performance when Euro Area CESI goes below 0 and stays negative for 2 months

Median		1m	3m	6m	12m
European Sectors relative	Energy	0.9%	3.0%	5.8%	1.3%
	Materials	-1.0%	0.5%	1.5%	1.9%
	Industrials	0.5%	0.4%	2.0%	4.3%
	Discretionary	0.3%	0.4%	-0.4%	3.1%
	Autos	-1.4%	0.4%	0.9%	6.0%
	Consumer Durables	0.1%	0.4%	1.9%	3.9%
	Retailing	-1.2%	1.2%	-0.2%	4.2%
	Hotels, Restaurants & Leisure	0.6%	0.9%	0.1%	1.8%
	Staples	0.8%	0.0%	-0.8%	1.4%
	Healthcare	1.0%	1.9%	0.0%	1.8%
	Financials	-1.9%	-3.0%	-0.2%	-0.3%
	Banks	-1.0%	-2.4%	-1.0%	-3.3%
	IT	1.6%	2.1%	0.8%	4.3%
	Telecoms	-1.3%	-3.6%	-2.8%	-6.5%
	Utilities	0.3%	1.1%	1.3%	-0.1%
	Real Estate	0.9%	-1.2%	-1.0%	-9.8%
	Cyclicals Ex Tech vs Defensives	-0.5%	-0.6%	0.8%	3.6%

Source: Datastream, Bloomberg Finance L.P.

This tended to be a problem for Cyclical sectors, and also for Banks.

Table 5: MSCI Europe sectors relative performance when US CESI goes below 0 and stays negative for 2 months

Median		1m	3m	6m	12m
European Sectors relative	Energy	-0.5%	2.0%	3.5%	-0.6%
	Materials	-1.9%	-0.3%	2.5%	1.1%
	Industrials	0.9%	1.3%	0.7%	2.5%
	Discretionary	0.2%	0.5%	-1.3%	2.3%
	Autos	0.4%	0.9%	-0.9%	0.2%
	Consumer Durables	0.6%	-0.1%	4.4%	9.5%
	Retailing	0.4%	1.1%	2.1%	1.1%
	Hotels, Restaurants & Leisure	-0.2%	-1.3%	0.8%	-0.8%
	Staples	0.8%	0.9%	0.1%	4.5%
	Healthcare	0.9%	-0.4%	1.3%	1.3%
	Financials	-0.1%	-0.1%	-1.3%	-2.6%
	Banks	-0.1%	-0.6%	-3.4%	-8.3%
	IT	0.4%	0.7%	0.7%	2.1%
	Telecoms	1.0%	0.1%	-1.2%	-2.2%
	Utilities	0.0%	-0.4%	2.5%	2.9%
	Real Estate	0.4%	-1.1%	-4.0%	-6.3%
	Cyclicals Ex Tech vs Defensives	-0.9%	-1.3%	-0.1%	0.7%

Source: Datastream, Bloomberg Finance L.P.

A similar trend is seen when US CESI turns negative, as well.

Figure 30: Banks Net interest income and ECB deposit rate



Source: J.P.Morgan

Now, Banks do look attractively priced, but they might end up cheap on peak earnings. Their earnings power is likely to move lower as rates come off.

Equity Strategy Key Calls and Drivers

SPW, an equal-weighted S&P500 index, has stalled since March, and is behind SPX so far this year by more than 10%. We think this is reflecting a changing Growth-Policy narrative vs early 2024. Entering this year, investor expectations were for a Goldilocks outcome – growth acceleration and at the same time quick Fed easing, starting already in March. The early Fed cuts and the consequent improving credit impulse didn't materialize, which should weigh on growth in 2H. US activity momentum is slowing, with CESI outright negative at present, putting EPS growth projections of as much as 15% acceleration between Q1 and Q4 of this year at risk. Instead of easing preemptively for market-friendly reasons, such as falling inflation, as was the view at the start of the year, the Fed could end up easing, but reactively, in a response to weakening growth. At the same time, there is no safety net any more, the market is positioned long, Vix is at lows, potentially underpricing risks and credit spreads are extremely tight – this is as good as it gets. Adding to the picture strengthening USD and elevated political uncertainty currently, we arrive at a problematic setup for the equity market during summer. In terms of positioning, we have entered this year again OW Growth vs Value style and Large vs Small caps, and we are keeping these for 2H in the US, not expecting much broadening. The recent relative dip due to French political uncertainty is likely to become a buying opportunity as we move through 2H, but we think the risk of further drawdowns is not finished, as the potential new French government will likely try to test the limits of what they can do. Cyclical were the best performing sectors in Q1, but struggled to outperform in Q2. We reiterate our barbell of OW Defensives and Commodities.

Table 6: 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 52.9
European Growth	Positive	reset last year, manufacturing improving, consumer can pick up	
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 13.7x Fwd P/E
Technicals	Negative	Sentiment and positioning are stretched post the rally since November	RSIs are in overbought territory

Source: J.P. Morgan estimates

Table 7: : 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 8: Index targets

	Dec '24 Target	04-Jul-24	% upside
MSCI Eurozone	256	295	-13%
FTSE 100	7,700	8,241	-7%
MSCI EUROPE	1,850	2,078	-11%
DJ EURO STOXX 50	4,250	4,987	-15%
DJ STOXX 600 E	460	518	-11%

Source: J.P. Morgan.

Table 9: Key Global sector calls

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

Source: J.P. Morgan

Table 10: J.P. Morgan Equity Strategy – Key sector calls*

Sector	Recommendations	Key Drivers
Utilities	Overweight	Sector is low beta, has strong cash flow generation, resilient earnings, and power prices are higher than pre-Ukraine but P/E relative is near record cheap
Healthcare	Overweight	Potential for lower yields and stronger dollar are supports, better earnings
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 help
Banks	Underweight	3 years of strong performance, Nil likely peaking, central banks moving to cuts, underprovisioning
Autos	Underweight	Pricing and volume could come under pressure with rising inventories, increasing China competition and weaker demand
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 11: J.P. Morgan Equity Strategy — Key regional calls

Region	Recommendations	J.P. Morgan Views
EM	Neutral	China tactical positive call since Q1, but structural concerns remain
DM	Neutral	
US	Neutral	Expensive with earnings risk. but our ytd Growth style OW helps
Japan	Overweight	Large rate differential, TSE reforms, consumer reflation, but JPY needs to show stability
Eurozone	Neutral	Eurozone growth differential bottoming, cheap
UK	Overweight	Valuations still look very attractive, low beta with the highest regional dividend yield

Source: J.P. Morgan estimates.

Top Picks

Table 12: 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	48.1	-35%	-14%	1%	6.3%	6.9	12.5	-45%	-5%	8%
TOTALENERGIES	TTE FP	Energy	OW	66	E	156.7	-33%	-1%	2%	4.7%	7.6	10.6	-28%	-2%	23%
SHELL	SHEL LN	Energy	OW	34	E	215.8	-23%	1%	2%	3.5%	8.8	11.1	-21%	6%	22%
CRH PUBLIC LIMITED	CRH LN	Materials	OW	73	US\$	46.0	-14%	25%	9%	1.8%	13.0	14.9	-13%	-13%	34%
RIO TINTO	RIO LN	Materials	OW	5359	£	106.8	-11%	3%	-1%	6.4%	9.2	10.3	-11%	5%	6%
NORSK HYDRO	NHY NO	Materials	OW	68	NK	12.0	-60%	26%	39%	3.7%	10.5	12.6	-17%	0%	4%
ANGLO AMERICAN	AAL LN	Materials	OW	2434	£	35.4	-51%	-14%	19%	3.1%	13.8	9.5	44%	15%	4%
SCHNEIDER ELECTRIC	SU FP	Industrials	OW	231	E	132.7	2%	15%	13%	1.5%	26.0	16.5	57%	11%	43%
ASHTREAD GROUP	AHT LN	Industrials	OW	5220	£	27.2	26%	-	-	1.5%	16.3	14.1	16%	-9%	-3%
RYANAIR HOLDINGS	RYA ID	Industrials	OW	16	E	18.7	-	-	-	0.0%	8.1	12.7	-37%	-22%	-5%
AIRBUS	AIR FP	Industrials	OW	136	E	109.0	10%	-13%	34%	1.3%	21.0	18.5	13%	-19%	4%
MTU AERO ENGINES HLDG.	MTX GR	Industrials	OW	255	E	13.8	24%	12%	14%	0.8%	19.2	18.1	6%	10%	10%
STELLANTIS	STLAM IM	Discretionary	OW	18	E	55.5	12%	-14%	4%	8.5%	3.5	4.7	-25%	-27%	13%
BMW	BMW GR	Discretionary	OW	88	E	56.4	-35%	-7%	0%	6.8%	5.4	7.6	-29%	-23%	-
INDITEX	ITX SM	Discretionary	OW	46	E	142.4	27%	-	-	2.6%	22.9	24.1	-5%	-1%	29%
ADIDAS	ADS GR	Discretionary	OW	219	E	39.7	-154%	-	117%	0.3%	43.1	24.8	74%	10%	23%
RICHEMONT N	CFR SW	Discretionary	OW	141	SF	85.8	78%	-	-	1.7%	20.0	20.8	-4%	2%	-6%
COMPASS GROUP	CPG LN	Discretionary	OW	2161	£	43.4	50%	14%	10%	1.9%	21.4	20.9	2%	-3%	0%
COLRUYT GROUP	COLR BB	Staples	OW	45	E	5.8	-27%	-	-	1.8%	15.0	17.6	-15%	7%	29%
ANHEUSER-BUSCH INBEV	ABI BB	Staples	OW	56	E	112.2	-5%	9%	13%	1.4%	17.0	19.4	-12%	1%	7%
NOVO NORDISK 'B'	NOVOB DC	Health Care	OW	970	DK	581.8	52%	27%	24%	1.0%	36.7	22.8	61%	13%	80%
ASTRAZENECA	AZN LN	Health Care	OW	12106	£	222.2	9%	12%	14%	1.9%	17.6	17.7	0%	13%	14%
SMITH & NEPHEW	SN/ LN	Health Care	OW	1054	£	11.0	1%	12%	18%	2.8%	13.2	18.4	-28%	9%	-12%
UBS GROUP	UBSG SW	Financials	OW	27	SF	97.5	-99%	4327%	64%	2.3%	17.3	10.4	67%	-4%	50%
NATWEST GROUP	NWGL LN	Financials	OW	326	£	32.0	38%	-19%	9%	5.2%	7.5	10.0	-25%	16%	35%
ING GROEP	INGA NA	Financials	OW	17	E	54.8	106%	-9%	8%	6.7%	8.4	9.0	-7%	6%	32%
INTESA SANPAOLO	ISP IM	Financials	OW	4	E	65.5	79%	19%	4%	8.3%	7.5	10.0	-25%	6%	48%
LONDON STOCK EXCHANGE GROUP	LSEGL LN	Financials	OW	9274	£	58.4	2%	10%	13%	1.2%	24.6	23.0	7%	-1%	13%
AMUNDI (WI)	AMUN FP	Financials	OW	64	E	13.2	4%	8%	7%	6.4%	9.7	12.6	-23%	-2%	18%
DASSAULT SYSTEMES	DSY FP	IT	N	35	E	47.6	6%	8%	9%	0.8%	25.9	31.7	-18%	-11%	-12%
ASML HOLDING	ASML NA	IT	OW	984	E	397.5	41%	-5%	60%	0.6%	40.0	27.3	47%	9%	47%
ASM INTERNATIONAL	ASM NA	IT	OW	717	E	35.5	-8%	19%	35%	0.4%	43.8	16.7	163%	25%	86%
DEUTSCHE TELEKOM	DTE GR	Telecoms	OW	24	E	118.9	-13%	14%	12%	3.2%	12.3	14.0	-12%	7%	19%
BT GROUP	BT/A LN	Telecoms	OW	139	£	16.4	9%	-	-	5.5%	7.7	8.7	-11%	31%	11%
RELX	REL LN	Industrials	OW	3583	£	79.4	12%	8%	9%	1.6%	27.9	19.4	44%	8%	38%
HELLOFRESH	HFG GR	Staples	N	6	E	1.1	-49%	-62%	138%	0.0%	15.1	18.6	-19%	-6%	-75%
RWE	RWE GR	Utilities	OW	33	E	24.7	30%	-55%	-26%	3.0%	13.8	13.0	6%	6%	-18%
ENEL	ENEL IM	Utilities	OW	7	E	68.0	15%	10%	0%	6.5%	9.9	11.9	-17%	10%	5%
SEURO	SGRO LN	Real Estate	OW	907	£	14.6	6%	6%	8%	3.1%	25.3	25.3	0%	3%	23%

Source: Datastream, MSCI, IBES, J.P. Morgan, Prices and Valuations as of COB 4th Jul, 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>

Equity Flows Snapshot

Table 13: DM Equity Fund Flows Summary

Regional equity fund flows										
	\$mn					% AUM				
	1w	1m	3m	ytd	12m	1w	1m	3m	ytd	12m
Europe ex UK	-109	-393	2,153	1,180	-6,860	0.0%	-0.1%	0.6%	0.4%	-2.2%
UK	-857	-3,067	-8,580	-12,728	-27,899	-0.3%	-1.1%	-3.2%	-4.6%	-10.3%
US	6,348	27,479	90,128	114,257	270,631	0.1%	0.3%	0.9%	1.2%	3.2%
Japan	-557	-9,624	3,919	12,247	25,473	-0.1%	-1.2%	0.5%	1.6%	3.6%

Source: EPFR, as of 12th Jun, 2024

Figure 31: DM Equity Fund flows – last month



Source: EPFR, Japan includes BoJ purchases.

Figure 32: DM Equity Fund flows – last 12 months



Source: EPFR, Japan includes BoJ purchases.

Figure 33: Cumulative fund flows into regional funds as a percentage of AUM



Source: EPFR, as of 12th Jun, 2024. Japan includes Non-ETF purchases only.

Figure 34: 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 35: S&P500 RSI



Source: Bloomberg Finance L.P.

Figure 36: EuroStoxx50 RSI



Source: Bloomberg Finance L.P.

Figure 37: AAll Bull-Bear



Source: Bloomberg Finance L.P.

Figure 38: Put-call ratio



Source: Bloomberg Finance L.P.

Figure 39: Sentix Sentiment Index vs SX5E



Source: Bloomberg Finance L.P.

Figure 40: Equity Skew



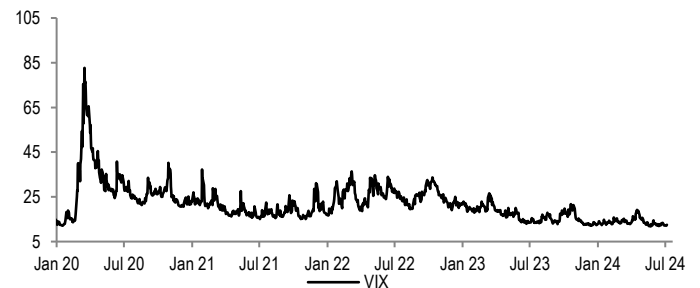
Source: Bloomberg Finance L.P.

Figure 41: Speculative positions in S&P500 futures contracts



Source: Bloomberg Finance L.P.

Figure 42: VIX



Source: Bloomberg Finance L.P.

Performance

Table 14: Sector Index Performances — MSCI Europe

(%change)		Local currency		
Industry Group		4week	12m	YTD
Europe		(1.4)	11.5	8.4
Energy		4.1	14.2	6.3
Materials		(0.8)	11.3	3.5
	Chemicals	(1.2)	8.7	1.6
	Construction Materials	2.2	40.7	19.5
	Metals & Mining	(0.6)	4.7	1.1
Industrials		(2.2)	19.6	10.5
	Capital Goods	(2.9)	23.4	12.1
	Transport	1.8	(8.2)	(4.0)
	Business Svs	(0.0)	17.8	10.9
Consumer Discretionary		(4.1)	(3.7)	3.3
	Automobile	(4.0)	(1.2)	1.1
	Consumer Durables	(5.2)	(8.9)	2.7
	Media	(2.3)	23.0	9.3
	Retailing	(2.7)	12.0	13.3
	Hotels, Restaurants & Leisure	(2.5)	(4.6)	0.5
Consumer Staples		(4.3)	(7.9)	(2.3)
	Food & Drug Retailing	(1.7)	(6.8)	(4.1)
	Food Beverage & Tobacco	(4.2)	(10.7)	(3.0)
	Household Products	(5.0)	(1.9)	(0.2)
Healthcare		(1.1)	14.6	13.6
Financials		(1.1)	20.6	11.9
	Banks	(0.6)	25.3	17.5
	Diversified Financials	(1.5)	18.3	5.6
	Insurance	(1.7)	15.2	8.6
Real Estate		(4.6)	15.1	(1.2)
Information Technology		2.3	32.3	25.3
	Software and Services	2.9	33.4	18.3
	Technology Hardware	1.8	7.4	8.5
	Semicon & Semicon Equip	2.0	36.7	32.8
Telecommunications Services		(1.2)	9.4	5.9
Utilities		(1.7)	(4.1)	(4.1)

Source: MSCI, Datastream, as at COB 4th Jul, 2024.

Table 15: Country and Region Index Performances

(%change)		Local Currency			US\$		
Country	Index	4week	12m	YTD	4week	12m	YTD
Austria	ATX	1.1	15.8	8.1	0.4	14.8	5.7
Belgium	BEL 20	1.0	11.2	6.7	0.4	10.2	4.4
Denmark	KFX	(1.0)	39.9	24.3	(1.6)	38.5	21.5
Finland	HEX 20	(1.1)	0.6	0.1	(1.7)	(0.3)	(2.1)
France	CAC 40	(4.3)	4.4	2.0	(4.9)	3.5	(0.2)
Germany	DAX	(1.1)	15.0	10.1	(1.7)	14.0	7.8
Greece	ASE General	(1.2)	10.5	11.0	(1.8)	9.5	8.6
Ireland	ISEQ	(3.9)	8.9	8.3	(4.5)	7.9	5.9
Italy	FTSE MIB	(2.1)	20.1	12.4	(2.7)	19.1	9.9
Japan	Topix	5.1	25.7	22.5	1.8	12.6	7.1
Netherlands	AEX	1.2	20.0	18.8	0.6	19.0	16.2
Norway	OBX	(0.6)	12.1	6.8	(0.4)	12.8	2.6
Portugal	BVL GEN	(2.7)	(2.6)	(5.8)	(3.3)	(3.5)	(7.8)
Spain	IBEX 35	(3.3)	15.4	9.5	(3.9)	14.4	7.2
Sweden	OMX	(1.5)	12.0	7.3	(2.2)	15.2	2.9
Switzerland	SMI	(1.4)	7.6	8.4	(2.3)	7.1	1.3
United States	S&P 500	3.4	24.3	16.1	3.4	24.3	16.1
United States	NASDAQ	5.9	31.6	21.2	5.9	31.6	21.2
United Kingdom	FTSE 100	(0.5)	9.6	6.6	(0.6)	9.9	6.7
EMU	MSCI EMU	(2.0)	11.2	8.3	(2.6)	10.2	6.0
Europe	MSCI Europe	(1.4)	11.5	8.4	(2.0)	11.1	5.8
Global	MSCI AC World	2.5	21.1	14.2	2.3	20.1	12.6

Source: MSCI, Datastream, as at COB 4th Jul, 2024.

Earnings

Table 16: IBES Consensus EPS Sector Forecasts — MSCI Europe

	EPS Growth (%yoy)			
	2023	2024E	2025E	2026E
Europe	(3.8)	4.3	10.1	9.1
Energy	(31.6)	(3.7)	2.2	3.2
Materials	(39.0)	7.5	14.3	8.3
Chemicals	(39.0)	23.7	18.9	13.0
Construction Materials	12.2	14.3	9.5	8.7
Metals & Mining	(46.7)	(4.6)	10.4	3.8
Industrials	(0.6)	9.0	13.2	12.0
Capital Goods	20.4	12.1	15.0	11.9
Transport	(56.0)	(11.0)	(0.5)	14.6
Business Svs	3.2	7.8	11.4	10.4
Discretionary	5.0	1.8	10.9	10.2
Automobile	1.9	(6.1)	6.4	6.6
Consumer Durables	(6.0)	1.9	14.7	13.4
Media	1.8	6.1	9.4	8.3
Retailing	40.3	24.3	14.8	11.4
Hotels,Restaurants&Leisure	63.5	40.0	22.6	18.8
Staples	2.4	2.2	8.7	7.8
Food & Drug Retailing	3.7	2.4	10.0	9.3
Food Beverage & Tobacco	2.0	0.7	8.7	7.7
Household Products	2.9	6.2	8.0	7.4
Healthcare	1.1	6.4	14.6	10.9
Financials	15.8	8.3	7.6	8.8
Banks	28.8	3.6	4.4	6.8
Diversified Financials	(20.2)	19.8	21.3	19.7
Insurance	11.4	14.7	8.1	7.2
Real Estate	5.6	2.7	4.1	4.3
IT	14.4	(10.2)	33.7	16.0
Software and Services	18.5	(5.9)	24.1	16.8
Technology Hardware	(19.1)	8.7	7.5	10.6
Semicon & Semicon Equip	27.9	(18.6)	51.0	17.2
Telecoms	(8.5)	9.5	10.6	10.6
Utilities	1.9	(0.2)	0.4	3.9

Source: IBES, MSCI, Datastream. As at COB 4th Jul, 2024.

Table 17: IBES Consensus EPS Country Forecasts

Country	Index	EPS growth (%change)			
		2023	2024E	2025E	2026E
Austria	ATX	(23.6)	6.7	4.2	5.1
Belgium	BEL 20	14.4	(5.0)	15.5	12.1
Denmark	Denmark KFX	(14.9)	32.1	18.0	16.6
Finland	MSCI Finland	(25.2)	0.8	13.8	8.8
France	CAC 40	(2.4)	0.8	9.4	8.1
Germany	DAX	0.2	0.8	12.5	11.0
Greece	MSCI Greece	15.1	(6.8)	3.4	10.3
Ireland	MSCI Ireland	33.8	0.4	2.9	6.5
Italy	MSCI Italy	8.9	0.4	3.5	5.0
Netherlands	AEX	(2.0)	2.1	12.8	8.8
Norway	MSCI Norway	(41.3)	5.3	5.2	1.0
Portugal	MSCI Portugal	16.9	17.0	0.4	7.7
Spain	IBEX 35	8.2	4.9	4.1	5.9
Sweden	OMX	31.9	1.6	8.7	7.1
Switzerland	SMI	(4.5)	11.7	12.6	10.4
United Kingdom	FTSE 100	(10.6)	1.1	8.3	7.9
EMU	MSCI EMU	3.0	3.6	10.6	9.2
Europe ex UK	MSCI Europe ex UK	(0.1)	5.3	10.9	9.5
Europe	MSCI Europe	(3.8)	4.3	10.1	9.1
United States	S&P 500	2.5	10.7	14.6	12.3
Japan	Topix	18.1	8.0	10.4	8.6
Emerging Market	MSCI EM	(6.5)	21.6	15.9	11.0
Global	MSCI AC World	0.1	10.0	13.4	11.1

Source: IBES, MSCI, Datastream. As at COB 4th Jul, 2024** Japan refers to the period from March in the year stated to March in the following year – EPS post-goodwill

Valuations

Table 18: 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	14.4	13.1	12.0	3.3%	3.5%	3.8%	8.2	7.7	7.1	2.0	1.8	1.7
Energy	8.0	7.8	7.6	5.3%	5.2%	5.4%	3.5	3.4	3.3	1.2	1.1	1.1
Materials	16.1	14.1	13.0	3.2%	3.5%	3.7%	7.7	6.8	6.5	1.7	1.6	1.5
Chemicals	23.9	20.1	17.8	2.7%	2.9%	3.0%	11.7	10.6	9.6	2.3	2.2	2.1
Construction Materials	13.0	11.8	10.9	3.5%	3.8%	4.2%	6.9	6.2	5.7	1.4	1.3	1.2
Metals & Mining	11.3	10.2	9.9	3.7%	4.2%	4.5%	5.2	4.4	4.4	1.3	1.2	1.1
Industrials	20.1	17.7	15.8	2.3%	2.5%	2.8%	10.4	9.4	8.6	3.4	3.1	2.9
Capital Goods	20.0	17.4	15.6	2.2%	2.4%	2.7%	11.1	9.6	8.8	3.5	3.2	2.9
Transport	16.1	16.1	14.1	3.1%	3.2%	3.3%	6.7	6.9	6.3	1.9	1.8	1.7
Business Svs	23.3	20.9	19.0	2.3%	2.5%	2.7%	13.1	12.3	11.2	6.6	6.0	5.5
Discretionary	13.1	11.8	10.7	2.8%	3.1%	3.4%	5.1	5.0	4.6	1.9	1.7	1.5
Automobile	5.9	5.5	5.2	5.6%	5.9%	6.3%	1.8	1.6	1.7	0.7	0.6	0.6
Consumer Durables	23.6	20.6	18.1	1.8%	2.1%	2.3%	13.9	12.6	11.3	4.0	3.6	3.3
Media & Entertainment	17.2	15.8	14.5	2.4%	2.6%	2.7%	12.1	9.7	9.2	2.0	2.1	1.9
Retailing	16.2	14.1	12.6	2.4%	2.5%	2.8%	7.1	10.2	7.5	3.6	3.1	2.7
Hotels, Restaurants & Leisure	23.3	19.0	16.0	2.0%	2.6%	2.9%	12.2	10.4	9.4	4.5	4.1	3.6
Staples	16.9	15.5	14.4	3.2%	3.4%	3.6%	10.7	10.0	9.2	2.8	2.7	2.5
Food & Drug Retailing	11.3	10.3	9.4	4.4%	4.7%	5.0%	5.7	5.6	5.3	1.5	1.5	1.4
Food Beverage & Tobacco	16.5	15.1	14.1	3.5%	3.7%	4.0%	10.5	9.8	9.0	2.5	2.4	2.3
Household Products	20.1	18.7	17.4	2.4%	2.6%	2.8%	13.9	12.9	11.9	4.2	4.0	3.6
Healthcare	18.9	16.5	14.9	2.3%	2.5%	2.8%	12.8	11.7	10.1	3.7	3.4	3.0
Financials	9.2	8.6	7.9	5.5%	5.6%	6.0%	-	-	-	1.1	1.1	1.0
Banks	7.4	7.1	6.6	7.0%	6.9%	7.4%	-	-	-	0.8	0.8	0.7
Diversified Financials	14.9	12.3	10.2	2.3%	2.6%	2.9%	-	-	-	1.4	1.5	1.5
Insurance	10.7	9.9	9.2	5.6%	6.0%	6.4%	-	-	-	1.7	1.6	1.5
Real Estate	14.6	14.0	13.4	4.1%	4.3%	4.5%	-	-	-	0.9	0.8	0.8
IT	34.5	25.8	22.2	1.1%	1.2%	1.4%	20.5	15.6	13.6	5.5	4.9	4.4
Software and Services	33.4	26.9	23.0	1.3%	1.4%	1.5%	20.3	16.1	13.9	4.6	4.2	3.8
Technology Hardware	16.9	15.7	14.2	2.3%	2.5%	2.8%	9.3	8.8	7.5	2.1	1.9	1.8
Semicon & Semicon Equip	42.4	28.1	24.0	0.7%	0.9%	1.0%	26.1	17.6	15.4	9.6	8.1	6.8
Communication Services	14.9	13.4	12.1	4.3%	4.3%	4.6%	6.6	6.2	5.7	1.5	1.4	1.4
Utilities	12.3	12.3	11.8	5.1%	5.1%	5.3%	8.0	8.1	8.0	1.5	1.5	1.4

Source: IBES, MSCI, Datastream. As at COB 4th Jul, 2024.

Table 19: 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	8.1	8.2	7.9	7.4	5.8%
Denmark	Denmark KFX	27.3	29.8	25.3	21.7	1.5%
Finland	MSCI Finland	14.9	15.9	14.0	12.9	4.4%
France	CAC 40	12.6	13.2	12.1	11.2	3.5%
Germany	DAX	11.9	12.7	11.3	10.2	3.4%
Greece	MSCI Greece	29.4	30.0	29.0	26.2	1.9%
Ireland	MSCI Ireland	10.8	11.0	10.6	10.0	3.7%
Italy	MSCI Italy	9.1	9.2	8.9	8.5	5.6%
Netherlands	AEX	15.9	16.9	15.0	13.8	2.4%
Norway	MSCI Norway	10.3	10.6	10.1	10.0	6.4%
Portugal	MSCI Portugal	14.8	14.9	14.8	13.8	3.9%
Spain	IBEX 35	10.8	11.0	10.5	10.0	4.8%
Sweden	OMX	14.7	15.4	14.1	13.3	3.8%
Switzerland	SMI	17.0	18.0	16.0	14.5	3.2%
United Kingdom	FTSE 100	11.4	11.8	10.9	10.1	4.0%
EMU	MSCI EMU	13.0	13.7	12.4	11.4	3.5%
Europe ex UK	MSCI Europe ex UK	14.5	15.3	13.8	12.6	3.3%
Europe	MSCI Europe	13.7	14.4	13.1	12.0	3.5%
United States	S&P 500	21.4	23.1	20.2	18.0	1.4%
Japan	Topix	15.4	15.8	14.3	13.2	2.3%
Emerging Market	MSCI EM	12.3	13.2	11.6	10.3	2.9%
Global	MSCI AC World	17.8	19.0	17.0	15.1	2.0%

Source: IBES, MSCI, Datastream. As at COB 4th Jul, 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 20: Economic Outlook in Summary

	Real GDP			Real GDP						Consumer prices			
	% oya			% over previous period, saar						% oya			
	2023E	2024E	2025E	4Q23	1Q24	2Q24E	3Q24E	4Q24E	1Q25E	4Q23	2Q24E	4Q24E	2Q25E
United States	2.5	2.3	1.7	3.4	1.4	2.0	1.0	1.0	2.0	3.2	3.3	3.0	2.4
Eurozone	0.6	0.8	1.1	-0.2	1.3	1.5	1.5	1.0	1.0	2.7	2.5	2.5	2.2
United Kingdom	0.1	1.0	0.8	-1.2	2.9	2.0	1.0	1.0	0.8	4.2	2.1	2.4	2.7
Japan	1.8	-0.1	0.7	0.4	-1.8	1.5	1.0	0.8	0.6	2.9	2.6	2.6	3.0
Emerging markets	4.2	4.2	3.6	4.1	6.1	3.0	3.5	3.5	3.4	3.7	3.5	3.5	3.2
Global	2.8	2.6	2.3	2.7	3.2	2.2	2.2	2.1	2.3	3.4	3.4	3.1	2.8

Source: J.P. Morgan economic research J.P. Morgan estimates, as of COB 28th Jun, 2024

Table 21: Official Rates Outlook

	Official interest rate	Current	Last change (bp)	Forecast next change (bp)	Forecast for			
					Sep 24	Dec 24	Mar 25	Jun 25
United States	Federal funds rate	5.50	26 Jul 23 (+25bp)	Nov 24 (-25bp)	5.50	5.25	5.00	4.75
Eurozone	Depo rate	3.75	6 Jun 24 (-25bp)	Sep 24 (-25bp)	3.50	3.25	3.00	2.50
United Kingdom	Bank Rate	5.25	03 Aug 23 (+25bp)	Aug 24 (-25bp)	5.00	4.75	4.50	4.25
Japan	Pol rate IOER	0.10	19 Mar 24 (+20bp)	3Q24 (+15bp)	0.25	0.50	0.50	0.75

Source: J.P. Morgan estimates, Datastream, as of COB 28th Jun, 2024

Table 22: 10-Year Government Bond Yield Forecasts

10 Yr Govt BY	Forecast for end of				
	5-Jul-24	Sep 24	Dec 24	Mar 25	Jun 25
US	4.34	4.50	4.40	4.20	4.00
Euro Area	2.59	2.40	2.20	2.10	2.00
United Kingdom	4.16	4.10	3.95	3.85	3.75
Japan	1.08	1.20	1.45	1.45	1.60

Source: J.P. Morgan estimates, Datastream, forecasts as of COB 28th Jun, 2024

Table 23: Exchange Rate Forecasts vs. US Dollar

Exchange rates vs US\$	Forecast for end of				
	4-Jul-24	Oct 24	Jan 25	Apr 25	Jul 25
EUR	1.08	1.05	1.09	1.12	1.12
GBP	1.28	1.25	1.31	1.35	1.35
CHF	0.90	0.94	0.92	0.89	0.89
JPY	161	157	156	155	154
DXY	105.1	107.1	103.7	101.3	101.1

Source: J.P. Morgan estimates, Datastream, forecasts as of COB 28th Jun, 2024



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.

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.jpmorganmarkets.com>.

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

	Overweight (buy)	Neutral (hold)	Underweight (sell)
J.P. Morgan Global Equity Research Coverage*	49%	38%	13%
IB clients**	49%	46%	34%
JPMS Equity Research Coverage*	48%	41%	11%
IB clients**	69%	66%	50%

*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. 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 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 (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. **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 July 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 07 Jul 2024 11:01 PM BST

Disseminated 08 Jul 2024 03:00 AM BST