

## **Equity Strategy**

#### Credit conditions keep tightening - Equity implications

- Credit spreads are down from last summer wides, now broadly half way
  between pricing in a recession and a steady state. Our credit team projects
  HY spreads to widen again from here, in both US and in Europe, but not
  dramatically. Still, we note credit markets are not sending a reassuring
  signal regarding the risk trade.
- 1. All-in cost of financing for corporates and for the consumer keeps rising. Total HY yield in Europe has moved up 530bp from the lows, to 8.0% currently. In the US, the upmove is 500bp, to 8.5% at present. These are at a premium to the average levels that corporates paid over the past 20 years. Cash flows and interest cover continue to appear healthy, but profit margins are starting to weaken, from the elevated levels. For consumer, mortgage rates are up to 6.5% in the US, from 2.5% at the start of '22, UK to 4.5% from 1.5% etc.
- Looking at the cross asset valuations, equities have now erased the cushion vs credit that was in force for a long time, with earnings yield over credit yield below last 10-year average. Eurozone dividend yield is now outright below HG yield, for the first time since 2011 bottom chart.
- 2. Bank lending standards continue tightening, for all categories. This is broadly similar to what is seen in the runup to past recessions.
- 3. Notably, **demand for credit is falling aggressively**, the most since GFC. This should not be taken as a sign that corporates are flush with liquidity, and don't need to borrow, but more a signal of worsening growth prospects.
- 4. Default rates are still generally subdued, but are rising. Our credit team is looking for 3% HY defaults in the US by end year, vs 1.4% currently, and for Europe at 2%. Interestingly, US bankruptcy filings so far ytd are the highest since 2010 middle chart.
- At sector level, there is a clear historical differentiation in performance with respect to credit moves. When lending standards are tightening, and/or when demand for credit is falling, Defensive sectors such as Healthcare, Staples and Utilities are outperforming, in contrast to Cyclicals and to Banks, that are lagging. With respect to moves in credit spreads, when they widen, as is JPM base case, Defensives work, at the expense of Autos and Banks. When all-in HY yield is moving up, Staples and Healthcare were typically by far the best performers, Financials and Real Estate the worst.
- We have been advocating in the past few months to turn <u>bullish</u> on **Defensives**, post the big beta rally from July to March. Within this, we kept **UW Real Estate**, a continuation of our UW on the sector through the whole last year. Fundamentally, Real Estate is likely to stay under pressure from worsening asset values, weaker cash flow and tighter financing.
- The above add to our concerns that **risk-reward for equities is set to deteriorate**, with weakness likely into 2H, after the Q4&Q1 rally that we enjoyed. We reiterate last week's <u>closure</u> of the Eurozone vs US trade.

Equity Strategy Mislav Matejka, CFA <sup>AC</sup>

J.P. Morgan Securities plc **Prabhav Bhadani, CFA** 

J.P. Morgan Securities plc

Nitya Saldanha, CFA

J.P. Morgan Securities plc

Karishma Manpuria, CFA

J.P. Morgan India Private Limited

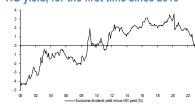
Bank lending standards keep tightening, and demand for credit is coming down aggressively, the most since GFC...



...delinquency rates are set to move up... ytd US bankruptcies are the highest since 2010...



...equity dividend yield is now below the HG yield, for the first time since 2010



Source: SLOOS, J.P. Morgan

See page 22 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, users should be aware that the firm may have a conflict of interest that could affect the objectivity of this report.

This material was originally prepared by a J.P. Morgan entity (as identified in the material) in connection with its business and is being provided to you as a courtesy in a modified format only for informational and educational purposes (not investment purposes), and on a delayed basis.

## **Table of Contents**

Credit conditions keep tightening - Equity implications.	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

Anamil Kochar of J.P. Morgan India Private Limited is a co-author of this report

# Credit conditions keep tightening - Equity implications

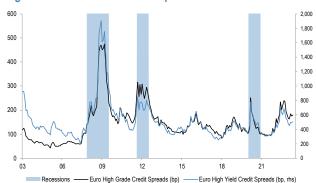
Figure 1: US and Eurozone HY credit spreads



Source: J.P. Morgan

Credit spreads have improved from last summer wides.

Figure 2: Euro HY and HG credit spreads



Source: J.P. Morgan

Broadly, they are mid way between the steady state and the recessionary levels.

Table 1: HY credit spreads and recessions

Past recessions	Trough in HY spreads	# months to	Move in spreads: trough to recession
Tecessions	Spicaus	recession	(bp)
1990	Jul-88	25	327
2001	Mar-98	37	513
2008	Jun-07	7	325
2020	Oct-18	17	784
Median		21	420
Average		22	487
Low in Jul'21 ti	ll peak in Jul'22		268
Low in Jul'21 ti	II current		146

Source: J.P. Morgan

Spreads tended to widen on average 400bp+ in the runup to past recessions, which compares with 268bp to last summer wides, and 126bp to latest.

Table 2: US and Euro HY and HG credit spreads forecast

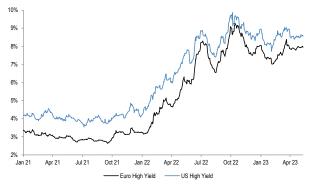
	US HG Spreads	US HY Spreads	Euro HG Spreads	Euro HY Spreads
Current	162	515	182	508
2023 year end target	150	575	200	550

Source: J.P. Morgan Credit Strategy team

Our Credit team <u>expects</u> HY spreads to widen from current levels in both the US and in Europe, but not by much. Despite this, relatively benign picture, we worry that credit markets in general are not sending constructive signals for equities.

#### 1. Borrowing costs have risen sharply...

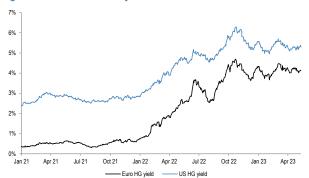
Figure 3: US and Euro HY yield - all-in



Source: J.P. Morgan

Despite the narrowing in spreads over the past few quarters, the total yield for both HY and HG credit has moved up materially. High yield levels are up 500bp+ vs a few years back.

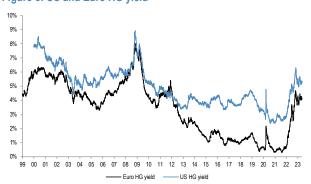
Figure 4: US and Euro HG yield



Source: J.P. Morgan

HG yield levels are also up, 278bp in US and 384bp in Europe, from lows.

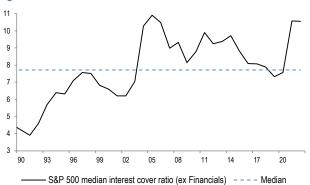
Figure 5: US and Euro HG yield



Source: J.P. Morgan

This now puts cost of borrowing at a premium to last 10-20 year averages.

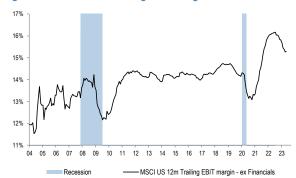
Figure 6: S&P500 interest cover ratio



Source: Datastream

We note that corporate balance sheets appear healthy, though. Interest cover ratios are the highest in years.

Figure 7: MSCI US 12m trailing EBIT margin



Source: IBES

This is thanks to elevated corporate profitability at present. We note though that profit margins appear to be peaking.

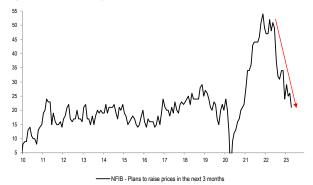
Figure 8: MSCI Europe 12m trailing EBIT margin



Source: IBES

Europe is set to roll over, too.

Figure 9: NFIB survey - Plans to raise prices in the next 3 months



Source: J.P. Morgan

Our call is that margins will get under increasing pressure as corporate pricing power wanes.

Mislav Matejka, CFA

Global Market Strategy
15 May 2023

J.P.Morgan

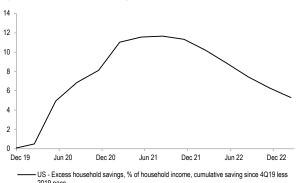
Figure 10: US 30Y Fixed Mortgage rate



Source: Bloomberg Finance L.P.

On the consumer side, the cost of borrowing is materially higher than a few year back. Mortgage rates have more than doubled in the US since the start of last year.

Figure 11: US excess savings

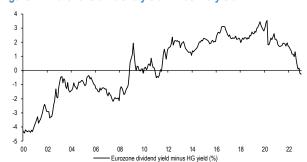


Source: J.P. Morgan Economics team

This will eat into consumer liquidity, the buffer of excess savings built during the pandemic is getting eroded.

## ...equities don't screen as attractive on relative valuations vs credit anymore

Figure 12: Eurozone dividend yield minus HG yield



Source: Datastream, J.P. Morgan

Relative equity valuation cushion is being eroded, too. Eurozone dividend yields are now below the high grade yields, for the first time since 2011.

Table 3: Spread between dividend yield and credit yield, at sector level for Eurozone market

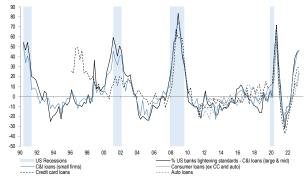
					Current
		High	Dividend		spread
	Dividend	Grade	Yield vs	LT	vs LT
	Yield	Yield	HG yield	Average	Average
Real Estate	6.9%	4.5%	2.4%	0.6%	1.8%
Autos	5.7%	3.6%	2.1%	-0.2%	2.2%
Energy	5.0%	3.5%	1.6%	1.2%	0.4%
Utilities	4.9%	3.7%	1.1%	1.3%	-0.1%
Financials	5.1%	4.1%	1.1%	0.6%	0.4%
Chemicals	3.4%	2.9%	0.5%	0.4%	0.1%
Materials	3.4%	2.9%	0.5%	-0.1%	0.6%
Telecoms	3.6%	3.5%	0.0%	1.0%	-1.0%
Eurozone	3.1%	3.5%	-0.4%	0.1%	-0.5%
Transport	3.2%	3.7%	-0.5%	-0.5%	0.0%
Const Materials	2.8%	3.5%	-0.7%	-0.6%	-0.1%
Discretionary	2.6%	3.6%	-1.0%	-0.7%	-0.3%
Capital Goods	2.3%	3.3%	-1.0%	-0.6%	-0.5%
Media	2.5%	3.6%	-1.0%	0.0%	-1.1%
Staples	2.0%	3.4%	-1.4%	-0.9%	-0.6%
Technology	1.1%	3.3%	-2.3%	-2.3%	0.0%

Source: J.P. Morgan, Datastream, LT average computed since 1998

This is currently below long-term averages. At a sector level, dividend yields for Technology, Staples, Media, Capital Goods, Discretionary, Construction Materials and Transport are below what is offered by their respective HG credit indices.

#### 2. Bank lending standards are getting more restrictive

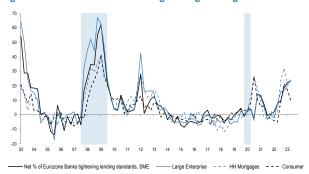
Figure 13: % of US domestic banks tightening lending standards



Source: FRB

The senior loan officer survey released by the FRB last week revealed that Banks had continued tightening lending standards through Q1, at an increasing pace. This is true for both corporate as well as consumer borrowing, across most categories of loans – see our economist report for <u>details</u>.

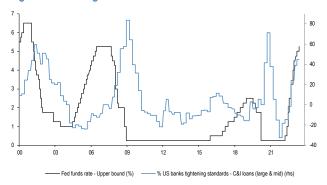
Figure 14: % of Eurozone banks tightening lending standards



Source: ECB

Eurozone Banks lending survey shows a similar trend, but no acceleration most recently.

Figure 15: Lending standards and Fed funds rate



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

Historically, banks get more restrictive with availability of loans during periods of economic downturns. Typically, Fed is well advanced with its cutting cycle when Banks lending standards peak, and start to ease.

#### 3. Demand for loans is extremely weak

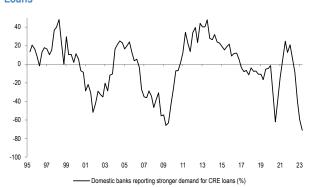
Figure 16: Domestic banks reporting stronger demand for C&I loans



Source: J.P. Morgan

It is not just the access to credit that is getting worse, but the demand for credit is deteriorating, too. Banks reporting stronger loan demand by small corporates were down more than 50% last quarter, the worst reading since the GFC lows and the 2<sup>nd</sup> lowest print on record.

Figure 17: Domestic banks reporting stronger demand for CRE Loans



Source: J.P. Morgan

Loan demand was weak across most categories, with CRE loan demand the worst on record.

Figure 18: % Eurozone banks reporting positive loan demand



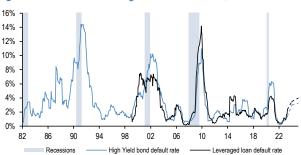
Source: Bloomberg Finance L.P., J.P. Morgan



It's a similar story in Eurozone, where most banks are reporting materially weaker loan demand. We think this should be taken as a worrying sign, a negative for growth outlook, rather than a signal of resilience and ample liquidity.

## 4. Delinquency rates are low in a historical context, but rising

Figure 19: US HY and leveraged loan default rate, with forecasts



Source: J.P. Morgan US HY strategy team

Default rates are relatively low in a historical context, but are moving up.

Table 4: JPM US default rate forecasts

	High Yield bond	Leveraged loan default
	default rate	rate
Current	1.42%	2.37%
Dec-23	3.00%	3.50%
Dec-24	3.25%	4.00%

Source: J.P. Morgan US HY strategy team

Our credit analysts believe that this trend will continue. They expect HY default rates in the US to rise from the current 1.4% to 3% by the end of this year and another 25bp for next year. For leveraged loans, default rates are projected to reach 4% by end next year.

Figure 20: Euro HY default rate



Source: J.P. Morgan European Credit strategy team

It is a similar case in Europe. The defaults are currently low, but on the rise. Our credit analysts expect default rates in Europe to rise to 2% by the end of this year.

Figure 21: US Bankruptcy fillings, by year

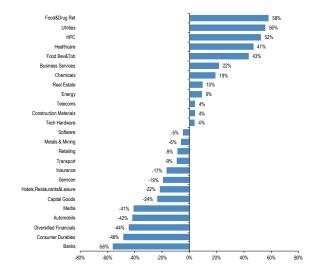


Source: S&PGlobal

We note that, year to date, corporate bankruptcy filings in the US are running at the fastest pace since 2010.

During periods of tightening lending standards, and weakening loan demand, sector leadership was dominated by Defensives...

Figure 22: US sectors correlation to % US banks tightening standards - C&I loans (large & mid)



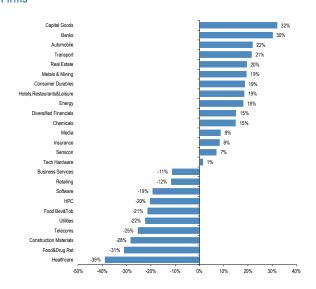
■US sectors correlation to % US banks tightening standards - C&I loans (large & mid)

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

In the past, tighter lending standards were typically associated with more Defensive sector leadership. Staples, Utilities and Healthcare sectors tended to outperform when bank lending was getting more restrictive. During this period, higher beta sectors such as

Banks, Consumer durables and Autos were among the worst performing sectors.

Figure 23: US sectors correlation to Net percentage of US domestic banks reporting stronger loan demand - Large & Med Firms

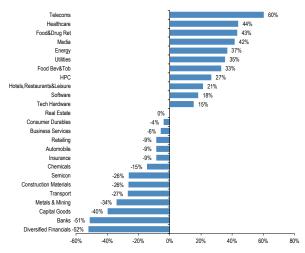


US sectors correlation to Net percentage of US domestic banks reporting stronger loan demand - Large & Med Firms

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

Similarly, periods of weaker loan demand saw Defensive sectors do better than the overall market, while higher beta sectors such as Capital Goods, Banks and Autos lagged.

Figure 24: Eurozone sectors correlation to Euro High Grade Credit Spreads

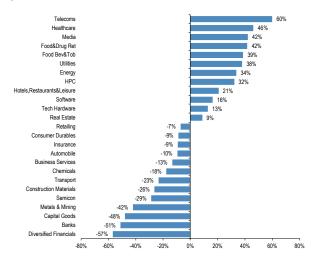


■ Eurozone sectors correlation to Euro High Grade Credit Spreads

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

We also note that Defensive stocks led the market when spreads were widening. As can be seen in the chart above, periods with wider spreads saw Defensive sectors such as Telecoms, Health care and Staples perform better, while Cyclicals and Financials lagged.

Figure 25: Eurozone sectors correlation to Euro High Yield Credit Spreads

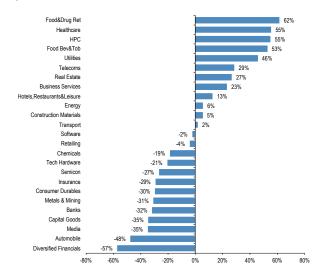


■ Eurozone sectors correlation to Euro High Yield Credit Spreads

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

The pecking order is fairly similar when repeating the analysis using Euro HY spreads.

Figure 26: US sectors correlation to US High Grade Credit Spreads



■US sectors correlation to US High Grade Credit Spreads

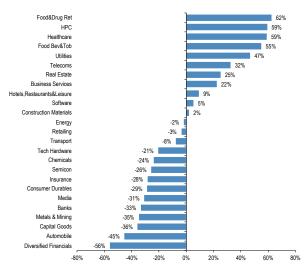
Source: Bloomberg Finance L.P., J.P. Morgan

15 May 2023

J.P.Morgan

Looking at the correlation against US High Grade spreads, US sector performance also shows similar leadership pattern.

Figure 27: US sectors correlation to US High Yield Credit Spreads



US sectors correlation to US High Yield Credit Spreads

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

As is the case when considering US HY spreads.

Table 5: Eurozone sectors move from Euro HY trough to peak point

						Eurozo	ne Sectors r	elative				
Trough in Euro HY yield	Peak in Euro HY yield	Energy	Materials	Industrials	Discretion	Staples	Healthcare	Financials	IT	om Service:	Utilities	Real Estate
Apr 99	Oct 01	30%	4%	4%	-30%	9%	78%	-2%	-6%	-29%	15%	-10%
Mar 05	Dec 08	7%	16%	1%	10%	22%	-2%	-28%	-11%	15%	51%	-26%
Feb 11	Oct 11	3%	-4%	-4%	3%	28%	28%	-20%	2%	12%	2%	13%
Jun 14	Feb 16	-27%	-1196	1%	6%	31%	14%	-13%	21%	13%	-9%	20%
Feb 20	Mar 20	-10%	4%	-10%	3%	16%	13%	-16%	3%	12%	5%	-2%
Sep 21	Oct 22	53%	-6%	-196	-3%	9%	1%	9%	-19%	8%	6%	-41%
	Average	9%	0%	-2%	-2%	19%	22%	-12%	-2%	5%	12%	-8%
	Median	5%	0%	0%	3%	19%	13%	-15%	-2%	12%	5%	-6%

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

Looking at total credit yields, we note that in periods of rising credit yields, the relative returns of Staples and Healthcare sectors stand out. On the other hand, Financials and Real Estate were at the bottom of the pack in terms of relative performance.

...the above supports our sector shifts, where we have been advocating in the past 3 months to start turning OW Defensives and UW Value...

Figure 28: European Cyclicals vs Defensives since Jan '22



Source: Datastream

We have been advocating positioning for a more Defensive / low beta portfolio allocation over the last few months, post a strong beta rally seen since last summer.

Figure 29: European Defensive sectors relative



Source: Datastream

All Defensive sectors appear to be participating in the recent rebound, helped by falling bond yields, and the risks of macro turn.

Figure 30: US Defensive sectors relative



Source: Datastream

In the US, the turn is also visible, but the relative move in Defensives is dampened to a good extent by an exceptionally strong showing of Tech.

Figure 31: US and European Value vs Growth ytd

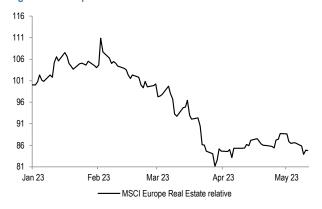


Source: Datastream

We were OW Value vs Growth last year, but this year have the opposite call. We think Growth will be beating Value, and are more bullish on Tech than last year, but think that in absolute terms its moves are getting stretched.

#### ...within this, we stay UW Real Estate

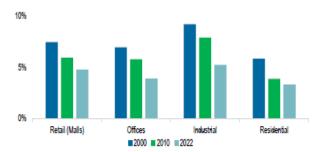
Figure 32: European Real Estate relative



Source: Datastream

Real Estate is a defensive, but a notable exception, in our view.

Figure 33: Valuation yields by sub-sector



Source: J.P. Morgan. European Real Estate Team

Despite the sector being a traditional bond proxy, the headwinds in the form of worsening asset values, weaker cash flows and tighter financing are likely to continue dominating the investment case. We have been UW Real Estate last year, and it is the only Defensive sector which we stayed UW through this year. Link to Real Estate team report.

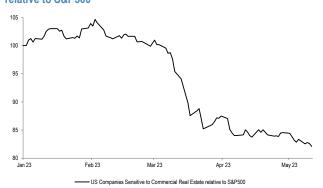
Table 6: US Companies sensitive to Commercial Real Estate Basket - JPAMCRUS

Name	Ticker	Sector
CATERPILLAR INC	CATUS	Industrials
MANITOWOC COMPANY INC	MTW US	Industrials
TEREX CORP	TEX US	Industrials
OSHKOSH CORP	OSK US	Industrials
WALGREENS BOOTS ALLIANCE INC	WBA US	Consumer Staples
RITE AID CORP	RAD US	Consumer Staples
CVS HEALTH CORP	CVS US	Health Care
APOLLO COMMERCIAL REAL ESTAT	ARI US	Financials
TPG RE FINANCE TRUST INC	TRTX US	Financials
CLAROS MORTGAGE TRUST INC	CMTG US	Financials
ARES COMMERCIAL REAL ESTATE	ACRE US	Financials
BLACKSTONE MORTGAGE TRU-CL A	BXMT US	Financials
PRINCIPAL FINANCIAL GROUP	PFG US	Financials
TRIMBLE INC	TRMB US	Information Technology
BOSTON PROPERTIES INC	BXP US	Real Estate
KILROY REALTY CORP	KRC US	Real Estate
DOUGLAS EMMETT INC	DEI US	Real Estate
BRANDYWINE REALTY TRUST	BDN US	Real Estate
VORNADO REALTY TRUST	VNO US	Real Estate
SL GREEN REALTY CORP	SLG US	Real Estate
CBRE GROUP INC - A	CBRE US	Real Estate
JONES LANG LASALLE INC	JLL US	Real Estate
CUSHMAN & WAKEFIELD PLC	CWK US	Real Estate
TRANE TECHNOLOGIES PLC	TT US	Industrials
CARRIER GLOBAL CORP	CARR US	Industrials
LENNOX INTERNATIONAL INC	LII US	Industrials
JOHNSON CONTROLS INTERNATION	JCI US	Industrials
RESIDEO TECHNOLOGIES INC	REZI US	Industrials
API GROUP CORP	APG US	Industrials
HUBBELL INC	HUBB US	Industrials
HONEYWELL INTERNATIONAL INC	HON US	Industrials
SNAP ONE HOLDINGS CORP	SNPO US	Consumer Discretionary
OTIS WORLDWIDE CORP	OTIS US	Industrials
ALARM.COM HOLDINGS INC	ALRM US	Information Technology
NCR CORPORATION	NCR US	Information Technology
CISCO SYSTEMS INC	CSCO US	Information Technology
LOGITECH INTERNATIONAL-REG	LOGIUS	Information Technology
DIEBOLD NIXDORF INC	DBD US	Information Technology
ZEBRA TECHNOLOGIES CORP-CL A	ZBRA US	Information Technology
COGNEX CORP	CGNX US	Information Technology

Source: J.P. Morgan.

At a stock level, we highlight the recent work from our US strategists, in partnership with sectors analysts in both Europe and the US, where they identified companies that are exposed to commercial real estate.

Figure 34: US Companies Sensitive to Commercial Real Estate relative to S&P500



Source: Bloomberg Finance L.P., JPMorgan

The US basket has continued to lag the broader market this year.

Table 7: European Companies sensitive to Commercial Real Estate Basket - JPAMCREU

Name	Ticker	Sector
BASF SE	BAS GY	Materials
SIKA AG-REG	SIKA SW	Materials
AKZO NOBEL N.V.	AKZA NA	Materials
WACKER CHEMIE AG	WCH GY	Materials
COVESTRO AG	1COV GY	Materials
ARKEMA	AKE FP	Materials
HOLCIM LTD	HOLN SW	Materials
CRH PLC	CRH ID	Materials
HEIDELBERGCEMENT AG	HEI GY	Materials
BUZZI UNICEM SPA	BZU IM	Materials
COMPAGNIE DE SAINT GOBAIN	SGO FP	Industrials
ASSA ABLOY AB-B	ASSAB SS	Industrials
KINGSPAN GROUP PLC	KSP ID	Industrials
ROCKWOOL A/S-B SHS	ROCKB DC	Industrials
VINCI SA	DG FP	Industrials
SCHNEIDER ELECTRIC SE	SU FP	Industrials
ABB LTD-REG	ABBN SW	Industrials
LEGRAND SA	LR FP	Industrials
SIGNIFY NV	LIGHT NA	Industrials
KONE OYJ-B	KNEBV FH	Industrials
SCHINDLER HOLDING-PART CERT	SCHP SW	Industrials
FERGUSON PLC	FERG LN	Industrials
ASHTEAD GROUP PLC	AHT LN	Industrials
REXEL SA	RXL FP	Industrials
TRAVIS PERKINS PLC	TPK LN	Industrials
RENTOKIL INITIAL PLC	RTO LN	Industrials
SECURITAS AB-B SHS	SECUB SS	Industrials
AENA SME SA	AENA SM	Industrials
ADP	ADP FP	Industrials
FRAPORT AG FRANKFURT AIRPORT	FRA GY	Industrials
ACCOR SA	AC FP	Consumer Discretionary
WHITBREAD PLC	WTB LN	Consumer Discretionary
EQT AB	EQT SS	Financials
PARTNERS GROUP HOLDING AG	PGHN SW	Financials
AMUNDI SA	AMUN FP	Financials
SCHRODERS PLC	SDR LN	Financials
ST JAMES'S PLACE PLC	STJ LN	Financials Financials
DWS GROUP GMBH & CO KGAA ABRDN PLC	DWS GY	Financials Financials
INTERMEDIATE CAPITAL GROUP	ABDN LN ICP LN	Financials Financials
PETERSHILL PARTNERS PLC	PHLL LN	Financials
QUILTER PLC		
HALMA PLC	QLT LN	Financials
RIGHTMOVE PLC	HLMA LN RMV LN	Information Technology
SCOUT24 SE	G24 GY	Communication Services Communication Services
3000124 3E	G24 G1	Communication Services

Source: J.P. Morgan

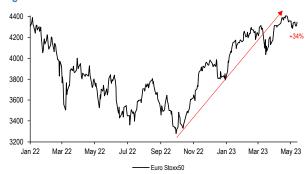
The basket also includes a list of European names which have high exposure to commercial real estate.

Our European sector analysts have also published a detailed <u>Credit Check report</u> last year, which includes a list of stocks with greatest leverage concerns/refinancing risk

## We believe that the risk-reward for equities will worsen into 2H... reiterate last week's closure of Eurozone vs US trade

We look for weaker equity markets in the 2<sup>nd</sup> half due to worsening Growth-Policy tradeoff, and the credit backdrop could add to the downside concerns.

Figure 35: Euro Stoxx 50 since Jan'22



Source: Bloomberg Finance L.P.

Our call is that the strong equity rally that we enjoyed in Q4 and Q1 is likely to come to an end.

Figure 36: MSCI Eurozone vs US



Source: Datastream

Within this, we reiterate our last week's <u>downgrade</u> of Eurozone equities, which are traditionally more levered to the high beta / global cyclical trade.

#### **Equity Strategy Key Calls and Drivers**

The main disconnect that the market will need to grapple with revolves around the hopes of a soft landing, without much pain to profits, labour or credit, but at the same time the expectation that inflation will come down quickly. Further, will the consensus view that the worst of pressures is behind us be proven right, when the impact of the monetary tightening historically worked with a lag, and we never had a sustained rally before the Fed has even stopped hiking? Finally, to be positive on equities at this stage, one has to have a very bullish set of assumptions on growth/rates/China/politics etc, as there is an alternative, the main risk-free rate is offering 5%, duration risk free. All these are likely to contribute to our view that stocks are set to weaken for the remainder of the year. We were bullish equities in Q4, and we expected positive trading to spill over into Q1, but we believe one should be UW stocks from here. Our core view is that the activity upswing seen around the turn of the year, which was helped by the falling gas prices in Europe and by China reopening, is unlikely to transition into an acceleration in 2H. We think that the Eurozone composite PMI rebound, from 47 in November to the latest 54 in March, has likely run its course. Apart from likely renewed deterioration in fundamentals in 2H, the potential curveballs could come from US politics, among other, as well as credit markets. Internal leadership might become increasingly difficult for Europe to keep beating the US; We believe the time has come to now close the trade of OW Eurozone vs US. With this, we are OW UK, Japan, and smaller parts of DM, such as Switzerland, we are unexcited about EM, Neutral vs DM, and we keep UW in US, now joined with an UW in Eurozone. This allocation is more aligned with our current sector and style allocation, where we were bullish Value vs Growth style last year, but this year we believe one should be UW Value style, especially if our October call for peaking US yields keeps tracking. Finally, we adv

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

Driver	Impact	Our Core Working Assumptions	Recent Developments
Global Growth	Negative	US recession a base case	Global composite PMI is at 54.2
European Growth	Negative	China reopen and gas price fall now behind us	
Monetary Policy	Neutral	Fed is unlikely to pivot, unless the macro backdrop deteriorates meaningfully	
Currency	Neutral	USD could stabilize post recent weakness	
Earnings	Negative	Margin squeeze and negative operating leverage coming up	Q1 results are likely to be better than expected
Valuations	Negative	US in particular is unattractive vs bond yields, but Europe screens better	MSCI Europe on 12.8x Fwd P/E
Technicals	Neutral	Sentiment is no longer cautious, and positioning normalized	Sentiment and positioning indicators are far from extreme, at either end, but breadth is low.

Source: J.P. Morgan estimates

**Table 9: Base Case and Risks** 

Scenario	Assumption
Upside scenario	Strong reopening in China. No further hawkish tilt by the Fed. Inflation to soften quickly.
Base-case scenario	Inflation to soften, but US recession coming. Earnings downside from here
Downside scenario	Significant further Fed tightening – global recession becomes base case again

Source: J.P. Morgan estimates.

Table 10: Index targets

	Dec '23			
	Target	11-May-23	% upside	
MSCI EMU	256	262	-2%	
FTSE 100	8,150	7,731	5%	
MSCI EUROPE	1,880	1,878	0%	
DJ EURO STOXX 50	4,150	4,310	-4%	
DJ STOXX 600 E	465	464	0%	

Source: J.P. Morgan.

Table 11: Key Global sector calls

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

Source: J.P. Morgan

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

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

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

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

Region	Recommendations	J.P. Morgan Views
EM	Neutral	China reopening is being worked through; geo-politics is a risk
DM	Neutral	
US	Underweight	Expensive, with earnings risk, Tech unlikely to be a safe haven this time around
Japan	Overweight	Japan is attractively priced, diverging policy path and reopening are potential tailwinds
Eurozone	Underweight	Post the strong rebound in Q4'22 & Q1 '23, the outperformance could stall, Growth-Policy tradeoff likely to deteriorate
UK	Overweight	Valuations still look very attractive, low beta with the highest regional dividend yield

Source: J.P. Morgan estimates

## **Top Picks**

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

							EP	S Grow	th	Dividend Yield		12m Fwd F	P/E	Perfor	mance
Name	Ticker	Sector	Rating	Price	Currency	Market Cap (€ Bn)	22e	23e	24e	23e	Current	10Y Median	% Premium	-3m	-12m
TOTALENERGIES	TTE FP	Energy	OW	55	Е	136.6	109%	-23%	-10%	5.3%	5.8	10.6	-45%	-8%	9%
SHELL	SHEL LN	Energy	OW	28	E	186.6	116%	-6%	0%	4.3%	6.0	11.2	-47%	-4%	2%
BASF	BAS GR	Materials	OW	47	E	42.2	3%	-35%	14%	7.2%	9.9	13.1	-24%	-8%	-4%
SOLVAY	SOLB BB	Materials	OW	107	E	11.4	67%	-21%	-1%	3.9%	8.2	12.6	-35%	-1%	16%
GLENCORE	GLEN LN	Materials	OW	428	£	61.3	112%	-44%	-8%	10.1%	6.8	11.9	-43%	-17%	-10%
ANGLO AMERICAN	AAL LN	Materials	OW	2348	£	36.0	-31%	-16%	-6%	5.8%	7.3	9.8	-26%	-27%	-31%
SAINT GOBAIN	SGO FP	Industrials	OW	53	Ε	27.4	21%	-12%	8%	3.8%	9.1	12.9	-29%	1%	0%
VINCI	DG FP	Industrials	OW	109	E	64.2	66%	6%	9%	4.0%	13.3	15.1	-12%	3%	19%
ATLAS COPCO A	ATCOA SS	Industrials	OW	150	SK	63.0	26%	12%	5%	1.7%	27.1	21.1	28%	20%	40%
REXEL	RXL FP	Industrials	OW	19	Е	5.7	59%	-15%	3%	6.0%	7.3	11.9	-38%	-12%	3%
DSV	DSV DC	Industrials	N	1324	DK	38.9	60%	-29%	5%	0.6%	22.6	21.6	5%	4%	27%
AIRBUS	AIR FP	Industrials	OW	121	Ε	95.9	21%	-4%	24%	1.7%	20.2	18.0	12%	7%	13%
BAE SYSTEMS	BA/ LN	Industrials	OW	982	£	34.4	17%	7%	9%	2.9%	16.0	11.9	34%	16%	32%
RENTOKIL INITIAL	RTO LN	Industrials	OW	643	£	18.6	18%	9%	15%	1.3%	26.6	22.2	20%	29%	27%
DR ING HC F PORSCHE PREF.	P911 GR	Discretionary	OW	115	E	104.1	-	7%	9%	2.0%	19.0	18.7	2%	1%	_
RENAULT	RNO FP	Discretionary	OW	33	Ē	9.9	-138%	-	21%	4.0%	3.3	5.7	-41%	-19%	45%
MERCEDES-BENZ GROUP N	MBG GR	Discretionary	OW	68	Ē	72.1	36%	-8%	1%	7.6%	5.4	7.6	-29%	-6%	7%
INDITEX	ITX SM	Discretionary	OW	31	Ē	97.6	189%	27%	12%	-	20.7	24.8	-16%	13%	57%
LVMH	MC FP	Discretionary	OW	888	Ē	445.6	17%	17%	11%	1.6%	26.0	21.5	21%	11%	55%
WHITBREAD	WTB LN	Discretionary	OW	3246	£	7.5	-	-	0%	1.5%	19.6	18.2	8%	8%	25%
B&M EUROPEAN VAL.RET.	BME LN	Discretionary	OW	489	£	5.6	-5%	-10%	-5%	5.0%	13.9	17.1	-19%	4%	7%
TESCO	TSCO LN	Staples	OW	274	£	22.9	81%	0%	-2%	4.0%	12.6	13.6	-7%	13%	-1%
KONINKLIJKE AHOLD DELHAIZE	AD NA	Staples	OW	31	Ē	30.3	16%	-2%	8%	3.5%	12.0	13.2	-9%	12%	18%
ANHEUSER-BUSCH INBEV	ABI BB	Staples	OW	57	Ē	114.1	13%	1%	15%	1.7%	18.2	19.5	-7%	4%	7%
DANONE	BN FP	Staples	OW	59	Ē	39.9	4%	1%	6%	3.5%	16.8	17.5	-4%	18%	7%
NESTLE 'N'	NESN SW	Staples	OW	115	SF	315.5	9%	4%	8%	2.7%	22.5	21.3	6%	5%	-5%
ASTRAZENECA	AZN LN	Health Care	OW	11924		211.8	26%	11%	16%	2.0%	19.1	17.7	8%	5%	19%
NOVO NORDISK 'B'	NOVOB DC	Health Care	OW	1156	ĎΚ	349.9	18%	41%	16%	1.4%	31.8	21.9	45%	19%	55%
SIEMENS HEALTHINEERS	SHL GR	Health Care	OW	54	E	60.5	13%	-11%	19%	1.7%	23.7	22.5	5%	4%	4%
UBS GROUP	UBSG SW	Financials	OW	17	SF	60.9	9%	1%	14%	3.1%	8.1	10.6	-23%	-14%	1%
ING GROEP	INGA NA	Financials	OW	11	E	41.6	-18%	52%	13%	6.9%	7.1	9.2	-23%	-12%	29%
LONDON STOCK EXCHANGE GROUP	LSEG LN	Financials	OW	8504	£	53.8	10%	9%	12%	1.4%	23.8	22.0	8%	12%	18%
AMUNDI (WI)	AMUN FP	Financials	OW	60	Ē	12.2	-11%	1%	6%	6.7%	10.1	12.8	-21%	-4%	9%
SWISS RE	SREN SW	Financials	OW	89	SF	29.1	-67%	597%	14%	7.0%	8.6	10.1	-15%	-5%	11%
PRUDENTIAL	PRU LN	Financials	OW	1182	£	37.3	-1%	17%	12%	1.4%	12.1	11.8	2%	-8%	25%
SAP	SAP GR	IT	OW	123	Ê	150.1	-40%	29%	18%	1.7%	21.9	19.3	14%	12%	34%
ASML HOLDING	ASML NA	iT	OW	593	Ē	239.2	-1%	33%	21%	1.1%	29.6	25.5	16%	-3%	15%
ADYEN	ADYEN NA	Financials	OW	1457	Ē	45.2	19%	24%	36%	0.0%	57.8	90.2	-36%	10%	6%
BT GROUP	BT/A LN	Telecoms	OW	153	£	17.4	6%	-1%	-6%	5.1%	8.3	9.5	-13%	12%	-14%
DEUTSCHE TELEKOM	DTE GR	Telecoms	OW	21	Ē	107.0	50%	-10%	15%	3.6%	12.4	14.4	-14%	7%	24%
INFRASTRUTTURE WIRELESS ITALIANE SPA NPV	INW IM	Telecoms	OW	12	Ē	11.7	54%	26%	17%	3.6%	29.7	28.4	5%	16%	18%
	REL LN			2496	£	54.4									
RELX PEARSON	PSON LN	Industrials	OW OW		£	54.4 6.7	17% 49%	9% 9%	10% 11%	2.3%	21.6	18.8	15% -8%	4%	9% 7%
DELIVERY HERO	DHER GR	Discretionary	OW	811 39	£ E	6.7 10.4	49%	9%	11%	2.8% 0.0%	13.9 -18.5	15.1 -30.3		-9% -16%	7% 53%
ENGIE	ENGI FP	Discretionary	OW	39 15	E	36.0	74%	-30%	7%	7.6%	-16.5 9.1		- -27%	12%	31%
		Utilities			E							12.4			
RWE	RWE GR	Utilities	OW	42		31.0	102%		-21%	2.3%	13.0	13.0	0%	5%	4%
SEGRO	SGRO LN	Real Estate	OW	809	£	11.4	7%	8%	8%	3.5%	23.6	25.3	-7%	-2%	-27%
VONOVIA	VNA GR	Real Estate	OW	19	E	14.8	3%	0%	-19%	7.9%	9.0	19.4	-54%	-28%	-45%

Source: Datastream, MSCI, IBES, J.P. Morgan, Prices and Valuations as of COB 11th May, 2023. Past performance is not indicative of future returns.

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

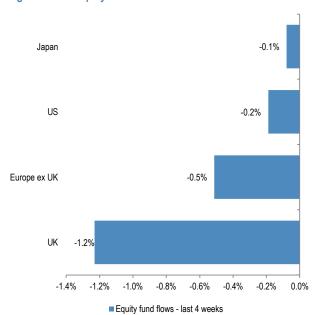
## **Equity Flows Snapshot**

**Table 15: DM Equity Fund Flows Summary** 

		Regional equity fund flows											
·-			<u>\$mn</u>			% AUM							
	1w	1m	3m	YTD	12m	1w	1m	3m	YTD	12m			
Europe ex UK	-442	-1,597	-2,860	-2,127	-24,549	-0.1%	-0.5%	-0.9%	-0.8%	-8.1%			
UK	-523	-3,432	-7,455	-10,839	-29,342	-0.2%	-1.2%	-2.6%	-4.0%	-10.2%			
US	-2,651	-15,514	-43,080	-58,130	24,040	0.0%	-0.2%	-0.5%	-0.8%	0.3%			
Japan	834	-533	-4,839	-6,186	-6,880	0.1%	-0.1%	-0.7%	-1.0%	-1.0%			

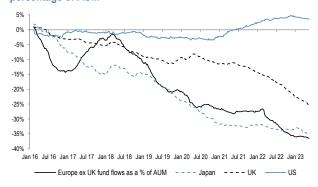
Source: EPFR, as of 10th May, 2023

Figure 37: DM Equity Fund flows – last month



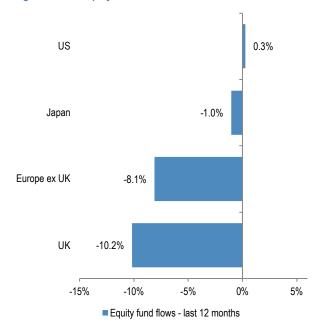
Source: EPFR, Japan includes BoJ purchases.

Figure 38: Cumulative fund flows into regional funds as a percentage of AUM



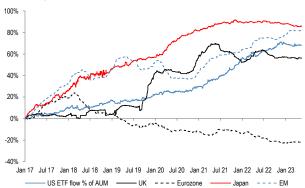
Source: EPFR, as of  $10^{\text{th}}$  May, 2023. Japan includes Non-ETF purchases only.

Figure 39: DM Equity Fund flows - last 12 months



Source: EPFR, Japan includes BoJ purchases.

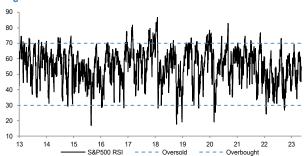
Figure 40: Cumulative fund flows into regional equity ETFs as a percentage of AUM



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

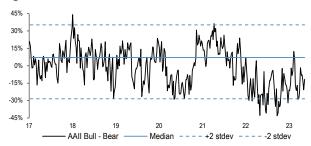
#### **Technical Indicators**

Figure 41: S&P500 RSI



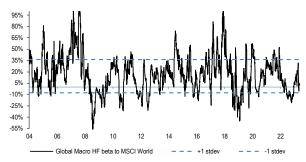
Source: Bloomberg Finance L.P.

Figure 42: AAII Bull-Bear



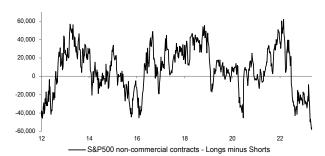
Source: Bloomberg Finance L.P

Figure 43: Hedge Fund Beta



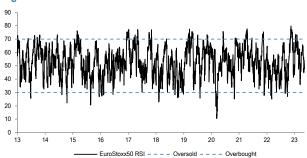
Source: Bloomberg Finance L.P.

Figure 44: Speculative positions in S&P500 futures contracts



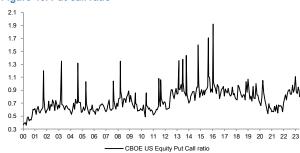
Source: Bloomberg Finance L.P.

Figure 45: Eurostoxx50 RSI



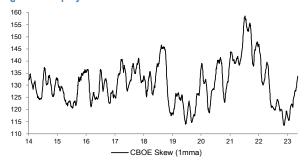
Source: Bloomberg Finance L.P.

Figure 46: Put-call ratio



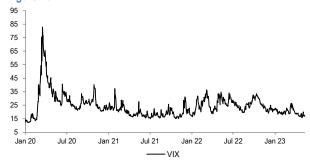
Source: Bloomberg Finance L.P.

Figure 47: Equity Skew



Source: Bloomberg Finance L.P.

Figure 48: VIX



Source: Bloomberg Finance L.P.

Global Market Strategy 15 May 2023

## Performance

Table 16: Sector Index Performances — MSCI Europe

(%change)		Loc	al currency	
Industry Group		4week	12m	YTD
Europe		(0.5)	8.8	9.0
Energy		(6.0)	3.3	(3.3)
Materials		(2.7)	(4.8)	0.1
	Chemicals	1.5	(3.2)	9.6
	Construction Materials	1.9	24.2	22.6
	Metals & Mining	(12.5)	(13.3)	(18.2)
Industrials	-	0.7	15.4	12.3
	Capital Goods	1.9	19.6	13.8
	Transport	(0.6)	7.1	14.7
	Business Svs	(5.1)	0.1	3.0
Consumer Discretionary		0.3	30.3	20.5
	Automobile	(2.1)	10.3	15.3
	Consumer Durables	1.0	39.3	27.3
	Media	(1.2)	6.3	7.4
	Retailing	(0.5)	36.7	8.6
	Hotels, Restaurants & Leisure	3.6	34.7	21.2
Consumer Staples	1101010, 11001001111110 01 20100110	1.1	4.0	8.1
Concumor Culpico	Food & Drug Retailing	(0.3)	(0.2)	14.2
	Food Beverage & Tobacco	1.3	(0.8)	5.6
	Household Products	0.8	18.4	12.6
Healthcare	110000110101111000000	1.6	7.1	9.3
Financials		(1.8)	10.6	4.5
	Banks	(1.3)	18.1	6.2
	Diversified Financials	(1.9)	1.4	5.2
	Insurance	(2.5)	6.7	1.4
Real Estate		(1.8)	(31.4)	(6.4)
Information Technology		(1.5)	11.5	16.2
information reciniology	Software and Services	2.8	13.8	19.6
	Technology Hardware	(5.1)	(11.6)	(2.3)
	Semicon & Semicon Equip	(4.3)	16.4	18.5
Telecommunications Services	Gennicon a Gennicon Equip	(4.3) (1.7)	(0.7)	10.5 <b>14.5</b>
Utilities Services		0.4	3.3	10.6

Source: MSCI, Datastream, as at COB 11th May, 2023.

**Table 17: Country and Region Index Performances** 

(%change)		Loca	I Currency			US\$	
Country	Index	4week	12m	YTD	4week	12m	YTD
Austria	ATX	(1.4)	3.2	1.7	(2.6)	6.9	4.1
Belgium	BEL 20	(1.9)	(5.5)	1.0	(3.1)	(2.2)	3.4
Denmark	KFX	2.9	30.1	14.7	1.7	34.4	17.2
Finland	HEX 20	(2.4)	(1.1)	(2.6)	(3.6)	2.4	(0.4)
France	CAC 40	(1.3)	17.7	14.0	(2.5)	21.9	16.6
Germany	DAX	0.7	14.5	13.7	(0.5)	18.5	16.3
Greece	ASE General	1.8	30.1	20.7	0.6	34.7	23.5
Ireland	ISEQ	3.5	22.5	20.2	2.3	26.8	22.9
Italy	FTSE MIB	(1.9)	14.2	14.3	(3.1)	18.2	16.9
Japan	Topix	3.7	12.5	10.1	2.2	9.1	8.1
Netherlands	AEX	(1.2)	10.0	9.0	(2.4)	13.9	11.5
Norway	OBX	(4.6)	(4.8)	(3.4)	(7.5)	(13.5)	(10.7)
Portugal	BVL GEN	(2.1)	3.9	2.3	(3.3)	7.5	4.6
Spain	IBEX 35	(1.4)	10.5	11.6	(2.5)	14.4	14.2
Sweden	OMX	0.2	12.8	9.1	(0.2)	9.1	10.1
Switzerland	SMI	2.3	(0.3)	7.4	1.7	10.5	11.1
United States	S&P 500	(0.4)	5.0	7.6	(0.4)	5.0	7.6
United States	NASDAQ	1.3	8.5	17.8	1.3	8.5	17.8
United Kingdom	FTSE 100	(1.4)	5.2	3.7	(1.3)	6.8	8.0
EMU	MSCI EMU	(1.1)	12.5	11.8	(2.2)	16.5	14.4
Europe	MSCI Europe	(0.5)	8.8	9.0	(1.3)	12.7	11.9
Global	MSCI AC World	(0.2)	5.8	7.7	(0.5)	6.1	8.2

Source: MSCI, Datastream, as at COB 11 $^{\mbox{\scriptsize th}}$  May, 2023.

Mislav Matejka, CFA

Global Market Strategy
15 May 2023

J.P.Morgan

## **Earnings**

Table 18: IBES Consensus EPS Sector Forecasts — MSCI Europe

		EPS Growth (%)		
	2022	2023E	2024E	2025E
Europe	18.5	0.0	7.2	7.8
Energy	122.1	(22.9)	(6.5)	(5.7)
Materials	2.0	(23.8)	4.0	3.8
Chemicals	0.1	(14.5)	14.8	10.4
Construction Materials	16.5	(1.2)	8.9	11.2
Metals & Mining	(2.7)	(31.7)	(5.6)	(5.2)
Industrials	21.0	(2.5)	10.4	12.5
Capital Goods	6.9	19.4	11.7	12.5
Transport	86.1	(58.6)	1.6	14.1
Business Svs	12.9	5.0	10.1	10.6
Discretionary	10.8	8.7	11.1	9.2
Automobile	18.2	(6.7)	4.7	6.3
Consumer Durables	12.6	2.7	15.6	11.0
Media	58.0	(1.4)	11.0	14.0
Retailing	(132.0)	· -	29.1	13.1
Hotels, Restaurants & Leisure	94.3	27.6	20.5	16.0
Staples	12.9	2.9	9.1	8.6
Food & Drug Retailing	5.2	(0.8)	13.2	10.0
Food Beverage & Tobacco	16.7	3.2	8.3	8.8
Household Products	5.4	3.5	9.5	7.1
Healthcare	7.6	4.5	12.1	12.3
Financials	(0.8)	21.5	8.2	8.4
Banks	8.5	16.3	6.4	7.2
Diversified Financials	(38.3)	51.4	13.4	14.9
Insurance	1.1	21.6	9.5	7.7
Real Estate	4.8	7.2	(2.3)	4.3
IT	3.4	14.8	15.0	16.5
Software and Services	(13.1)	21.9	17.1	14.9
Technology Hardware	1.3	(11.5)	17.9	8.7
Semicon & Semicon Equip	25.0	21.7	12.2	21.0
Telecoms	28.9	(2.1)	11.7	11.1
Utilities	22.9	(3.9)	4.0	4.1

Source: IBES, MSCI, Datastream. As at COB 11th May, 2023.

**Table 19: IBES Consensus EPS Country Forecasts** 

			EPS Growth (%)		
Country	Index	2022	2023E	2024E	2025E
Austria	ATX	35.2	(21.6)	2.2	2.9
Belgium	BEL 20	(3.9)	6.2	11.8	14.8
Denmark	Denmark KFX	31.2	(32.1)	12.9	16.1
Finland	MSCI Finland	4.5	(10.2)	9.1	5.4
France	CAC 40	27.4	(2.3)	7.3	7.9
Germany	DAX	9.2	(0.9)	10.7	9.6
Greece	MSCI Greece	121.4	(8.3)	3.6	6.8
Ireland	MSCI Ireland	28.7	1.3	11.1	12.7
Italy	MSCI Italy	29.7	(0.8)	2.5	3.8
Netherlands	AEX	30.9	(4.6)	8.0	5.9
Norway	MSCI Norway	84.0	(29.2)	3.4	(6.8)
Portugal	MSCI Portugal	25.6	30.6	6.2	8.6
Spain	IBEX 35	29.5	(6.9)	4.9	9.5
Sweden	OMX	(8.8)	26.9	6.8	7.8
Switzerland	SMI	(10.5)	27.1	11.3	9.9
United Kingdom	FTSE 100	28.5	(7.1)	4.0	4.6
EMU	MSCI EMU	19.5	2.0	8.5	9.1
Europe ex UK	MSCI Europe ex UK	15.1	3.4	8.8	9.1
Europe	MSCI Europe	18.5	0.0	7.2	7.8
United States	S&P 500	7.2	0.1	11.2	11.4
Japan	Topix	4.9	6.5	8.3	7.5
Emerging Market	MŚCI EM	4.4	(2.4)	17.2	12.2
Global	MSCI AC World	8.8	`0.Ź	10.8	10.2

Source: IBES, MSCI, Datastream. As at COB 11h May, 2023\*\* Japan refers to the period from March in the year stated to March in the following year - EPS post-goodwill

Global Market Strategy 15 May 2023

#### **Valuations**

**Table 20: IBES Consensus European Sector Valuations** 

		P/E		Div	idend Yields		E	EV/EBITDA		Pi	rice to Book	
	2023e	2024e	2025e	2023e	2024e	2025e	2023e	2024e	2025e	2023e	2024e	2025e
Europe	13.2	12.3	11.4	3.2%	3.4%	3.6%	7.3	7.9	7.5	1.9	1.8	1.7
Energy	5.9	6.3	6.7	5.4%	6.0%	5.6%	2.4	2.8	2.9	1.3	1.1	1.0
Materials	12.4	11.9	11.5	4.7%	4.5%	4.5%	5.4	6.5	6.3	1.6	1.5	1.5
Chemicals	19.4	16.9	15.3	3.5%	3.2%	3.3%	8.4	10.1	9.2	2.4	2.3	2.2
Construction Materials	11.5	10.6	9.5	3.5%	3.7%	3.9%	5.9	6.4	5.8	1.2	1.2	1.1
Metals & Mining	7.5	7.9	8.4	7.2%	7.0%	6.6%	3.6	4.3	4.4	1.2	1.2	1.1
Industrials	17.8	16.1	14.3	2.5%	2.6%	2.8%	8.3	9.8	8.9	3.1	3.0	2.9
Capital Goods	17.9	16.0	14.2	2.2%	2.5%	2.7%	9.8	10.2	9.1	3.1	2.9	2.8
Transport	15.2	15.0	13.1	4.7%	3.2%	3.2%	3.8	7.2	6.9	2.2	2.2	2.1
Business Svs	20.0	18.2	16.4	2.5%	2.5%	2.8%	13.2	11.9	11.0	5.5	5.4	5.0
Discretionary	14.2	12.8	11.7	2.3%	2.4%	2.7%	7.0	6.3	5.8	1.9	2.1	1.9
Automobile	5.8	5.6	5.2	5.1%	5.0%	5.3%	4.2	2.7	2.5	0.7	0.8	0.7
Consumer Durables	25.1	21.7	19.5	1.4%	1.6%	1.8%	13.2	15.0	13.7	6.1	5.7	5.0
Media & Entertainment	14.7	13.3	11.6	2.3%	2.4%	2.6%	11.0	11.5	10.2	1.6	1.6	1.5
Retailing	22.7	17.6	15.5	1.5%	1.8%	2.0%	17.9	13.4	10.0	3.2	2.7	2.6
Hotels, Restaurants & Leisure	24.7	20.5	17.6	1.4%	1.8%	2.3%	14.7	13.6	11.5	4.1	3.8	3.5
Staples	19.2	17.6	16.2	2.5%	2.7%	2.9%	11.6	12.0	11.1	3.0	3.0	2.8
Food & Drug Retailing	14.2	12.5	11.4	3.1%	3.3%	3.6%	6.8	6.5	6.4	1.7	1.7	1.7
Food Beverage & Tobacco	18.9	17.4	16.0	2.8%	3.0%	3.2%	11.8	11.9	11.0	2.7	2.8	2.6
Household Products	22.3	20.4	19.0	2.0%	2.2%	2.3%	13.9	15.4	14.1	4.7	4.4	4.1
Healthcare	18.1	16.1	14.4	2.2%	2.3%	2.5%	12.1	12.3	10.8	3.9	3.6	3.3
Financials	8.0	7.4	6.8	5.0%	5.9%	6.4%	-	-	-	0.9	0.9	0.9
Banks	6.5	6.1	5.7	5.9%	7.3%	8.0%	_	-	-	0.7	0.7	0.6
Diversified Financials	11.6	10.3	8.8	2.8%	3.1%	3.4%	-	-	-	1.1	1.0	1.1
Insurance	9.7	8.9	8.2	5.3%	5.7%	6.0%	-	-	-	1.7	1.5	1.4
Real Estate	11.1	11.4	10.9	4.6%	5.9%	6.0%	-		-	0.6	0.6	0.6
IT	22.1	19.2	16.5	1.2%	1.3%	1.5%	13.4	13.6	11.9	4.4	4.0	3.6
Software and Services	24.1	20.6	17.9	1.2%	1.3%	1.4%	14.4	14.6	12.8	3.9	3.5	3.3
Technology Hardware	14.7	12.5	11.5	2.4%	2.5%	2.9%	8.2	8.2	7.3	1.8	1.7	1.6
Semicon & Semicon Equip	23.1	20.6	17.0	0.9%	1.0%	1.2%	15.2	14.8	13.1	8.8	7.3	6.1
Communication Services	14.7	13.2	11.8	3.9%	4.1%	4.3%	6.6	6.8	6.5	1.5	1.4	1.4
Utilities	14.2	13.7	13.2	4.4%	4.6%	4.6%	7.9	8.6	8.6	1.9	1.8	1.7

Source: IBES, MSCI, Datastream. As at COB 11th May, 2023.

Global Market Strategy 15 May 2023

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

			P/E			Dividend Yield
Country	Index	12mth Fwd	2023E	2024E	2025E	12mth Fwd
Austria	ATX	7.1	7.2	7.0	6.8	6.0%
Belgium	BEL 20	15.6	16.4	14.6	12.5	3.1%
Denmark	Denmark KFX	25.3	26.7	23.7	20.4	1.8%
Finland	MSCI Finland	14.1	14.6	13.4	12.7	4.3%
France	CAC 40	12.4	12.8	11.9	11.0	3.3%
Germany	DAX	11.3	11.8	10.6	9.7	3.5%
Greece	MSCI Greece	39.2	39.8	38.4	36.0	1.4%
Ireland	MSCI Ireland	14.4	15.0	13.5	12.0	2.3%
Italy	MSCI Italy	8.2	8.3	8.1	7.8	5.7%
Netherlands	AEX	13.4	13.8	12.8	12.0	2.6%
Norway	MSCI Norway	8.7	8.8	8.5	9.1	7.2%
Portugal	MSCI Portugal	15.8	16.2	15.3	14.1	3.5%
Spain	IBEX 35	11.0	11.2	10.7	9.8	4.7%
Sweden	OMX	13.9	14.3	13.4	12.4	3.9%
Switzerland	SMI	16.8	17.6	15.8	14.4	3.1%
United Kingdom	FTSE 100	10.5	10.7	10.3	9.8	4.2%
EMU	MSCI EMU	12.4	12.8	11.8	10.8	3.5%
Europe ex UK	MSCI Europe ex UK	13.7	14.2	13.0	11.9	3.3%
Europe	MSCI Europe	12.8	13.2	12.3	11.4	3.5%
United States	S&P 500	18.1	19.1	17.1	15.4	1.7%
Japan	Topix	13.2	13.4	12.4	11.6	2.5%
Emerging Market	MSCI EM	11.7	12.5	10.7	9.5	3.2%
Global	MSCI AC World	15.5	16.2	14.7	13.3	2.4%

Source: IBES, MSCI, Datastream. As at COB 11<sup>th</sup> May, 2023; \*\* Japan refers to the period from March in the year stated to March in the following year – P/E post goodwill.

## Economic, Interest Rate and Exchange Rate Outlook

**Table 22: Economic Outlook in Summary** 

	Real GDP % oya			Real GDP % over previous period, saar						Consumer prices % oya			
	2022	2023E	2024E	4Q22	1Q23E	2Q23E	3Q23E	4Q23E	1Q24E	4Q22	2Q23E	4Q23E	2Q24E
United States	2.1	1.3	0.4	2.6	1.1	1.0	0.5	-0.5	-0.5	7.1	4.1	2.9	2.2
Eurozone	3.5	1.1	0.9	-0.2	0.3	2.0	1.5	0.5	0.3	10.0	6.5	3.0	2.1
United Kingdom	4.1	0.7	0.7	0.5	0.6	1.3	1.5	0.8	0.4	10.8	7.9	4.4	2.6
Japan	1.0	8.0	0.6	0.1	1.4	1.4	0.2	0.2	0.6	3.9	3.3	3.5	3.0
Emerging markets	3.4	4.3	3.9	2.2	7.8	4.3	3.5	3.3	3.9	5.9	3.6	4.1	4.3
Global	3.0	2.5	2.0	1.6	3.8	2.6	1.9	1.4	1.7	7.1	4.5	3.5	3.1

Source: J.P. Morgan economic research J.P. Morgan estimates, as of COB 11th May, 2023

**Table 23: Official Rates Outlook** 

%				Forecast	Forecast for					
	Official interest rate	Current	Last change (bp)	next change (bp)	Jun 23	Sep 23	Dec 23	Mar 24		
United States	Federal funds rate	5.25	03 May 23 (+25bp)	2Q24 (-50bp)	5.25	5.25	5.25	5.25		
Eurozone	Depo rate	3.25	04 May 23 (+25bp)	Jun 23 (+25bp)	3.50	3.75	3.75	3.75		
United Kingdom	Repo rate	4.50	11 May 23 (+25bp)	Jun 23 (+25bp)	4.75	4.75	4.75	4.50		
Japan	Overnight call rate	-0.10	Jan 16 (-20bp)	On hold	-0.10	-0.10	-0.10	-0.10		

Source: J.P. Morgan estimates, Datastream, as of COB 11th May 2023.

**Table 24: 10-Year Government Bond Yield Forecasts** 

10Yr Govt BY		Forecast for end of			
	11-May-23	Jun 23	Sep 23	Dec 23	Mar 24
US	3.38	3.70	3.55	3.40	3.40
Euro Area	2.23	2.40	2.25	2.00	1.65
United Kingdom	3.71	3.50	3.30	3.05	2.80
Japan	0.39	0.65	0.55	0.55	0.75

Source: J.P. Morgan estimates, Datastream, forecasts as of COB 05th May, 2023.

Table 25: Exchange Rate Forecasts vs. US Dollar

Exchange rates vs US\$		Forecast for end of			
	11-May-23	Jun 23	Sep 23	Dec 23	Mar 24
EUR	1.09	1.10	1.08	1.08	1.08
GBP	1.25	1.20	1.18	1.17	1.16
CHF	0.89	0.89	0.90	0.89	0.88
JPY	135	140	135	134	133
DXY	102.1	102.6	103.4	103.5	103.7

Source: J.P. Morgan estimates, Datastream, forecasts as of COB 05th May, 2023.

## Sector, Regional and Asset Class Allocations

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

		MOOLE W	10.11	B : # E 1100:	J.P. Morgar
		MSCI Europe Weights	J.P. Morgan Allocation	Deviation From MSCI	Recommendation
Energy		6.0%	7.0%	1.0%	OW
Materials		7.1%	7.0%	-0.1%	N
	Chemicals				UW
	Construction Materials				N
	Metals & Mining				N
Industrials		14.9%	14.0%	-0.9%	N
	Capital Goods ex Aerospace & Defence	9			UW
	Aerospace & Defence*				OW
	Transport				N
	Business Services				N
Consumer Discretionary		10.0%	9.0%	-1.0%	UW
	Automobile				UW
	Consumer Durables				N
	Hotels, Restaurants, Leisure				N
	Speciality Retail				UW
	Internet Retail				UW
Consumer Staples		13.0%	14.0%	1.0%	OW
•	Food & Drug Retailing				N
	Beverages				N
	Food & Tobacco				OW
	Household Products				OW
Healthcare	11000011010 1 1000010	15.6%	15.0%	-0.6%	N
Financials		16.2%	15.0%	-1.2%	N
Timuncials	Banks		10.070	1.270	N
	Insurance				OW.
Real Estate	madranec	0.7%	0.0%	-0.7%	UW
Information Technology		7.5%	7.0%	-0.5%	,
miorination recimology	Software and Services	1.070	1.070	0.070	
	Technology Hardware				N
	Semicon & Semicon Equip				
Communication Services	Gernicon & Gernicon Equip	4.8%	6.0%	1.2%	OW
	Telecommunication Services	4.0 /0	0.070	1.2/0	OW
	Media				OV
Utilities	IVICUIA	4.3%	6.0%	1.7%	OW
Juniues		100.0%	100.0%	0.0%	Balanced

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

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

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

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

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

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

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

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

rabio zor on rimorgan zquity on atogy	/ lood of diado / lilodation			
	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

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 calling 1-800-477-0406 with your request.

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

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

#### J.P. Morgan Equity Research Ratings Distribution, as of April 01, 2023

	Overweight (buy)	Neutral (hold)	Underweight (sell)
J.P. Morgan Global Equity Research Coverage*	47%	38%	15%
IB clients**	47%	44%	34%
JPMS Equity Research Coverage*	46%	41%	13%
IB clients**	66%	65%	53%

<sup>\*</sup>Please note that the percentages might not add to 100% because of rounding.

For purposes only of FINRA ratings distribution rules, 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 contact the primary analyst or your J.P. Morgan representative. 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. 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 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.

<sup>\*\*</sup>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.

**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 <u>UK MIFID Research Unbundling exemption</u> for details of JPMorgan's implementation of the FICC research exemption and guidance on relevant FICC research categorisation.

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

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

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

Any digital or crypto assets discussed in this research report are subject to a rapidly changing regulatory landscape. For relevant regulatory advisories on crypto assets, including bitcoin and ether, please see JPM website.

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 <a href="https://www.theocc.com/components/docs/riskstoc.pdf">https://www.theocc.com/components/docs/riskstoc.pdf</a> 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 JPM.

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

Legal entity responsible for the production and distribution of research: The legal entity identified below the name of the Reg AC Research Analyst who authored this material is the legal entity responsible for the production of this research. Where multiple Reg AC Research Analysts authored this material with different legal entities identified below their names, these legal entities are jointly responsible for the production of this research. Research Analysts from various J.P. Morgan affiliates may have contributed to the production of this material but may not be licensed to carry out regulated activities in your jurisdiction (and do not hold themselves out as

being able to do so). Unless otherwise stated below, this material has been distributed by the legal entity responsible for production. If you have any queries, please contact the relevant Research Analyst in your jurisdiction or the entity in your jurisdiction that has distributed this research material.

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

Argentina: JPMorgan Chase Bank N.A Sucursal Buenos Aires is regulated by Banco Central de la República Argentina ("BCRA"-Central Bank of Argentina) and Comisión Nacional de Valores ("CNV"- Argentinian Securities Commission" - ALYC y AN Integral N°51). Australia: J.P. Morgan Securities Australia Limited ("JPMSAL") (ABN 61 003 245 234/AFS Licence No: 238066) is regulated by the Australian Securities and Investments Commission and is a Market, Clearing and Settlement Participant of ASX Limited and CHI-X. 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 JPM website. international J.P. Morgan cover companies of relevance to the domestic 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 Securities Canada Inc. is a registered investment dealer. regulated Investment Industry Regulatory Organization of Canada and the Ontario Securities Commission and is the participating member on Canadian exchanges. This material is distributed in Canada by or on behalf of J.P.Morgan Securities Canada Inc. Chile: Inversiones J.P. Morgan Limitada is an unregulated entity incorporated in Chile. China: J.P. Morgan Securities (China) Company Limited has been approved by CSRC to conduct the securities investment consultancy business. **Dubai International Financial Centre (DIFC)**: JPMorgan Chase Bank, N.A., Dubai Branch is regulated by the Dubai Financial Services Authority (DFSA) and its registered address is Dubai International Financial Centre - The Gate, West Wing, Level 3 and 9 PO Box 506551, Dubai, UAE. This material has been distributed by JP Morgan Chase Bank, N.A., Dubai Branch to persons regarded as professional clients or market counterparties as defined under the DFSA rules. European Economic Area (EEA): Unless specified to the contrary, research is distributed in the EEA by J.P. Morgan SE ("JPM SE"), which is subject to prudential supervision by the European Central Bank ("ECB") in cooperation with BaFin and Deutsche Bundesbank in Germany. JPM SE is a company headquartered in Frankfurt with registered address at TaunusTurm, Taunustor 1, Frankfurt am Main, 60310, Germany. The material has been distributed in the EEA to persons regarded as professional investors (or equivalent) pursuant to Art. 4 para. 1 no. 10 and Annex II of MiFID II and its respective implementation in their home jurisdictions ("EEA professional investors"). This material must not be acted on or relied on by persons who are not EEA professional investors. Any investment or investment activity to which this material relates is only available to EEA relevant persons and will be engaged in only with EEA relevant persons. Hong Kong: J.P. Morgan Securities (Asia Pacific) Limited (CE number AAJ321) is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission in Hong Kong, and J.P. Morgan Broking (Hong Kong) Limited (CE number AAB027) is regulated by the Securities and Futures Commission in Hong Kong. JP Morgan Chase Bank, N.A., Hong Kong Branch (CE Number AAL996) is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission, is organized under the laws of the United States with limited liability. Where the distribution of this material is a regulated activity in Hong Kong, the material is distributed in Hong Kong by or through J.P. Morgan Securities (Asia Pacific) Limited and/or J.P. Morgan Broking (Hong Kong) Limited. India: J.P. Morgan India Private Limited (Corporate Identity Number - U67120MH1992FTC068724), having its registered office at J.P. Morgan Tower, Off. C.S.T. Road, Kalina, Santacruz - East, Mumbai - 400098, is registered with the Securities and Exchange Board of India (SEBI) as a 'Research Analyst' having registration number INH000001873. J.P. Morgan India Private Limited is also registered with SEBI as a member of the National Stock Exchange of India Limited and the Bombay Stock Exchange Limited (SEBI Registration Number - INZ000239730) and as a Merchant Banker (SEBI Registration Number - MB/INM000002970). JPMorgan Chase Telephone: 91-22-6157 3000, Facsimile: 91-22-6157 3990. 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.

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

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

Agency in Japan. Malaysia: This material is issued and distributed in Malaysia by JPMorgan Securities (Malaysia) Sdn Bhd (18146-X), which is a Participating Organization of Bursa Malaysia Berhad and holds a Capital Markets Services License issued by the Securities Commission in Malaysia. Mexico: J.P. Morgan Casa de Bolsa, S.A. de C.V. and J.P. Morgan Grupo Financiero are members of the Mexican Stock Exchange and are authorized to act as a broker dealer by the National Banking and Securities Exchange Commission. New Zealand: This material is issued and distributed by JPMSAL in New Zealand only to "wholesale clients" (as defined in the Financial Markets Conduct Act 2013). JPMSAL is registered as a Financial Service Provider under the Financial Service providers (Registration and Dispute Resolution) Act of 2008. Pakistan: J. P. Morgan Pakistan Broking (Pvt.) Ltd is a member of the Karachi Stock Exchange and regulated by the Securities and Exchange Commission of Pakistan. Philippines: J.P. Morgan Securities Philippines Inc. is a Trading Participant of the Philippine Stock Exchange and a member of the Securities Clearing Corporation of the Philippines and the Securities Investor Protection Fund. It is regulated by the Securities and Exchange Commission. Russia: CB J.P. Morgan Bank International LLC is regulated by the Central Bank of Russia. Singapore: This material is issued and distributed in Singapore by or through J.P. Morgan Securities Singapore Private Limited (JPMSS) [MCI (P) 060/08/2022 and Co. Reg. No.: 199405335R], which is a member of the Singapore Exchange Securities Trading Limited, and/or JPMorgan Chase Bank, N.A., Singapore branch (JPMCB Singapore), both of which are regulated by the Monetary Authority of Singapore. This material is issued and distributed in Singapore only to accredited investors, expert investors and institutional investors, as defined in Section 4A of the Securities and Futures Act, Cap. 289 (SFA). This material is not intended to be issued or distributed to any retail investors or any other investors that do not fall into the classes of "accredited investors," "expert investors" or "institutional investors," as defined under Section 4A of the SFA. Recipients of this material in Singapore are to contact JPMSS or JPMCB Singapore in respect of any matters arising from, or in connection with, the material. As at the date of this material, JPMSS is a designated market maker for certain structured warrants listed on the Singapore Exchange where the underlying securities may be the securities discussed in this material. Arising from its role as a designated market maker for such structured warrants, JPMSS may conduct hedging activities in respect of such underlying securities and hold or have an interest in such underlying securities as a result. The updated list of structured warrants for which JPMSS acts as designated market maker may be found on the website of the Singapore Exchange Limited: http://www.sgx.com. South Africa: J.P. Morgan Equities South Africa Proprietary Limited and JPMorgan Chase Bank, N.A., Johannesburg Branch are members of the Johannesburg Securities Exchange and are regulated by the Financial Services Board. Taiwan: J.P. Morgan Securities (Taiwan) Limited is a participant of the Taiwan Stock Exchange (company-type) and regulated by the Taiwan Securities and Futures Bureau. Material relating to equity securities is issued and distributed in Taiwan by J.P. Morgan Securities (Taiwan) Limited, subject to the license scope and the applicable laws and the regulations in Taiwan. According to Paragraph 2, Article 7-1 of Operational Regulations Governing Securities Firms Recommending Trades in Securities to Customers (as amended or supplemented) and/or other applicable laws or regulations, please note that the recipient of this material is not permitted to engage in any activities in connection with the material that may give rise to conflicts of interests, unless otherwise disclosed in the "Important Disclosures" in this material. Thailand: This material is issued and distributed in Thailand by JPMorgan Securities (Thailand) Ltd., which is a member of the Stock Exchange of Thailand and is regulated by the Ministry of Finance and the Securities and Exchange Commission, and its registered address is 3rd Floor, 20 North Sathorn Road, Silom, Bangrak, Bangkok 10500. UK: Unless specified to the contrary, research is distributed in the UK by J.P. Morgan Securities plc ("JPMS plc") which is a member of the London Stock Exchange and is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. JPMS plc is registered in England & Wales No. 2711006, Registered Office 25 Bank Street, London, E14 5JP. This material is directed in the UK only to: (a) persons having professional experience in matters relating to investments falling within article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) (Order) 2005 ("the FPO"); (b) persons outlined in article 49 of the FPO (high net worth companies, unincorporated associations or partnerships, the trustees of high value trusts, etc.); or (c) any persons to whom this communication may otherwise lawfully be made; all such persons being referred to as "UK relevant persons". This material must not be acted on or relied on by persons who are not UK relevant persons. Any investment or investment activity to which this material relates is only available to UK relevant persons and will be engaged in only with UK relevant persons. Research issued by JPMS plc has been prepared in accordance with JPMS plc's policy for prevention and avoidance of conflicts of interest related to the production of Research which can be found at the following link: J.P. Morgan EMEA - Research Independence Policy. U.S.: J.P. Morgan Securities LLC ("JPMS") is a member of the NYSE, FINRA, SIPC, and the NFA. JPMorgan Chase Bank, N.A. is a member of the FDIC. Material published by non-U.S. affiliates is distributed in the U.S. by JPMS who accepts responsibility for its

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.

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

This material was originally prepared by a J.P. Morgan entity (as identified in the material) in connection with its business and is being provided to you as a courtesy in a modified format only for informational and educational purposes (not investment purposes), and on a delayed basis.

"Other Disclosures" last revised May 13, 2023.

Copyright 2023 JPMorgan Chase & Co. All rights reserved. This material or any portion hereof may not be reprinted, sold or redistributed without the written consent of J.P. Morgan.

Reproduced with permission of copyright owner. Further reproduction prohibited without permission.