

Equity Strategy

Three key drivers of to date resilient corporate profitability to turn weaker

- Bulls are to a good extent basing their constructive market call on the premise that corporate profits are set to accelerate, supported by the bottoming out in activity indicators that is now in progress, such as PMIs and ISM. Indeed, a number of forecasters have in the past few weeks raised their index targets on the back of the more optimistic earnings outlook. However, **the earnings reality might turn out to be the opposite** as we move through the year.
- In aggregate, and despite a few notable exceptions, **corporate profit margins are elevated in a historical context, and appear to be peaking out** - top chart. The historical pattern where profit margins always start to move lower ahead of the next economic downturn is clear. We see 3 sources of downside to profit margins and to earnings from here:
 1. Many corporates benefitted from the **unique feature of this cycle: as interest rates increased 300bp+, the net interest expense came down**. That could be explained by companies locking in low cost of financing through extending the duration of their debt, and also through many corporates seeing an improving return on their cash balances. **This, rather counter-intuitive, development is set to normalize as time passes**. Companies will have to roll their debt into higher cost of credit. Separately, the basket of stocks with high refinancing needs is losing 20% vs SXXP over a year ago - JPDEHFCL, and our basket of cash rich companies is ahead by 14% - JPDEHFCW. **We think this outperformance will continue through 1H.**
 2. **Topline was exceptionally strong post COVID for many corporates, as pricing power was high**, companies were able to pass on input cost pressure with ease. As nominal GDP growth rates fade, and as PPIs have turned negative, margins could weaken. We are still of the view that COVID induced inflation spike will end up fully unwound, as per our [Oct '22 report](#), and this in turn suggests that corporate profitability winners need to reset. Historically, the **positive correlation between earnings and PPIs has been clear**.
 3. US economic activity was much more robust last year than most assumed, and this has potentially boosted productivity and in turn reduced ULCs. If the economy slows, partly because the supports that it enjoyed last year do not repeat, such as fiscal stimulus, ULCs could pick up. **Profit margin proxy, corporate deflator minus ULCs, could turn into more of a headwind**.
- Putting the above 3 together, one might end up with a disappointing profits outcome even without seeing an outright recession, and we note that 2024 EPS projections keep coming down in key regions. Now, could S&P500 earnings do much better than economy wide profits? It is interesting to note that for S&P500 all the profit growth in the past few quarters was due to Magnificent 7, and this is **one of the reasons why we remain OW Growth vs Value**. Ex these stocks, EPS growth for the remaining S&P500 constituents is outright negative. USD plays a role here, and if it gets stronger, as we suspect, then the S&P500 earnings might not outperform NIPA much.

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

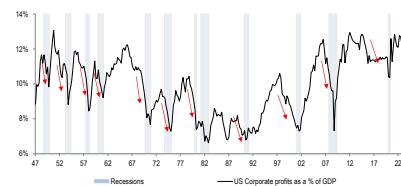
Nitya Saldanha, CFA

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

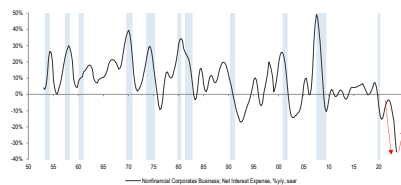
Karishma Manpuria, CFA

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

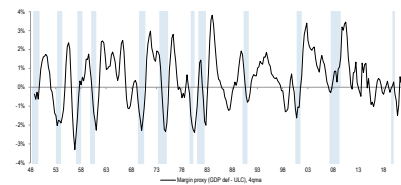
Profit margins are elevated in the historical context, and have started to soften... they always move lower ahead of the next downturn...



...net interest component was strongly accretive to corporate bottom line over the past few years, with net interest expense collapsing, but this is likely as good as it gets...



...ULCs are set to move higher, as well... this should lead to a rollover in margin proxy - deflator minus ULCs



Source: FRED, 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, 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

Three key drivers of to date resilient corporate profitability to turn weaker	3
Equity Strategy Key Calls and Drivers	11
Top Picks	12
Equity Flows Snapshot.....	13
Technical Indicators.....	14
Performance	15
Earnings	16
Valuations.....	17
Economic, Interest Rate and Exchange Rate Outlook.....	19
Sector, Regional and Asset Class Allocations.....	20

Three key drivers of to date resilient corporate profitability to turn weaker

Figure 1: S&P500 EPS vs Trend



Source: Datastream, IBES

Consensus projections are for S&P500 EPS growth to accelerate in 2024 and 2025, to 10-11% pace, from 2% seen in 2023. Bulls are basing their constructive market call on this, but the question is whether earnings and margins will continue to grow from what is an already elevated starting point?

Profit margins are elevated, and starting to show some softening of late...

Figure 2: NIPA profit margins



Source: BEA

US profit margins are close to historical highs, and are softening from the peak levels. We note that the rollover in margins always historically preceded the next downturn.

Figure 3: MSCI Europe (ex Financials) EBIT margin



Source: Datastream

European profit margins are also at elevated levels, in the historical context. Some sectors such as commodities and Chemicals are subdued, but most other sectors are at highs, leaving the overall margin level elevated.

Table 1: MSCI World EBIT Margin and Earnings growth - consensus

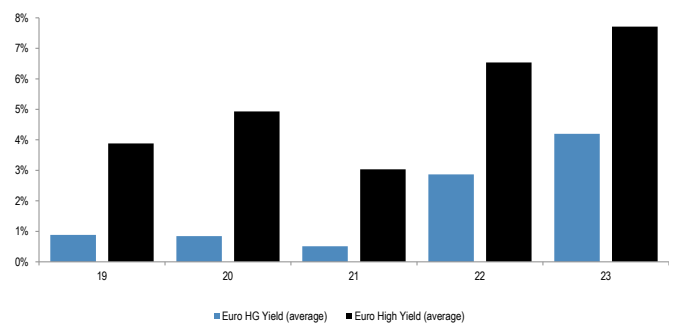
	EBIT Margin			Change 24e-23e (bps)	Earnings growth		
	23e	24e	25e		23e	24e	25e
World	14.5%	14.9%	15.7%	40.2	1.0%	7.6%	12.1%

Source: Datastream, IBES, *EBIT margin is for ex Financials and Real Estate

The consensus is projecting an acceleration in EPS growth and in margins this year, but we see risks to this.

...we believe profitability trends will be weaker over the next year: 1) Corporate profit margins have benefitted from lower interest expense. but that could start to reverse

Figure 4: Euro IG and HY Yield



Source: J.P. Morgan

Compared to pre-pandemic levels, the yield on the Euro denominated investment grade credit has gone up more than 300bp, from 0.9% in 2019 to 4.2% on average in 2023. Cost of borrowing for high yielders has risen by 380bp over the same time frame.

Figure 5: US HG and HY Yield



Source: J.P. Morgan

US corporate debt has seen yields rising by similar magnitude.

Figure 6: US and Eurozone Median Net Debt to Equity



Source: Datastream

At the same time, net leverage of both the US and European corporates has not changed all that much, to be close to the historical averages.

Figure 7: Nonfinancial corporate business: Net Interest Expenses



Source: FRED

What is interesting is that despite the big increase in borrowing costs it appears that companies are on average paying less

in interest now than before the pandemic. Data from the St. Louis Fed tracking aggregate interest expense for non-financial corporates in the US shows a sharp decline over the past few years.

Figure 8: S&P500 and Stoxx600 Net interest expense as a % of Net Debt



Source: Bloomberg Finance L.P.

Our bottom up analysis on S&P500 shows that almost 40% of the index constituents have either seen their net interest expense go down, or the income on their cash balances improve compared to 2019. For Stoxx600, more than half the companies are paying less in interest expense versus 2019, or are earning more interest on their cash balances.

We also looked at the effective interest rate (net interest expense / net debt) that companies were paying on their debt. Here again we note that 42% of companies in the S&P500 (excluding net cash companies from the denominator) and 36% of companies in the Stoxx600 are paying a lower rate of interest on their debt versus the pre-pandemic levels. This finding is supported by [work](#) from our Credit strategists who concluded that, at an aggregate level, as a rate of change vs 2019, companies were net earnings more interest on their cash balances compared to what they were paying in additional coupons on their debt.

The reasons why this happened range from: a large number of corporates tapped debt markets during the period of extremely low interest rates, extending the duration of debt on their books, and locking in low cost of financing, which didn't need to roll over yet, and at the same time on their cash balances companies started to earn some positive rate of return. We do not think that can last, the positive effect is as good as it gets, in our view.

Figure 9: European and US High Yield bonds maturity profile (EUR billion)



Source: J.P. Morgan Credit Strategy

Limited refinancing needs thus far meant that, at an aggregate level, companies were largely shielded from the higher borrowing costs. This is starting to change. We note that a growing volume of debt is to be refinanced over the next few years. At the same time, we expect central banks will commence rate cuts this year, which will reduce the income on cash that corporates are earning.

Table 2: Debt Distribution - Stoxx600

	Debt Distribution Average Years to Maturity	% Debt maturing this year	% Debt maturing in next 3 years	#cos whose more than 60% of total debt is maturing this year	#cos whose more than 60% of total debt is maturing in next 3 years	#cos whose more than 40% of total debt is maturing this year	#cos whose more than 40% of total debt is maturing in next 3 years
ENERGY	6.0	3.6%	26.7%	4	8	4	13
FINANCIALS	5.0	7.2%	26.1%	16	56	23	83
REAL ESTATE	4.8	4.3%	33.5%	5	14	8	26
MATERIALS	3.9	5.3%	35.7%	7	25	16	48
INDUSTRIALS	3.9	6.4%	37.0%	33	74	48	106
COMMUNICATION SERVICES	5.3	4.6%	30.2%	7	16	10	24
CONSUMER STAPLES	4.7	8.0%	33.3%	13	24	17	42
CONSUMER DISCRETIONARY	3.5	0.9%	48.1%	27	52	33	60
UTILITIES	6.7	4.8%	24.0%	1	7	2	19
HEALTH CARE	4.6	0.0%	30.6%	12	25	15	38
INFORMATION TECHNOLOGY	3.7	10.0%	42.1%	12	21	17	25

Source: Bloomberg Finance L.P.

In Europe, quite a few companies in the Technology, Industrials and Consumer Discretionary sectors need to refinance a significant proportion of their debt over the next year.

Table 3: Debt Distribution - S&P500

	Debt Distribution Average Years to Maturity	% Debt maturing this year	% Debt maturing in next 3 years	#cos whose more than 60% of total debt is maturing this year	#cos whose more than 60% of total debt is maturing in next 3 years	#cos whose more than 40% of total debt is maturing this year	#cos whose more than 40% of total debt is maturing in next 3 years
ENERGY	11.0	4.1%	20.6%	0	3	1	12
FINANCIALS	7.5	4.0%	24.5%	4	17	5	43
REAL ESTATE	6.6	3.6%	24.9%	0	2	0	20
MATERIALS	10.5	3.3%	25.6%	0	1	0	16
INDUSTRIALS	7.5	0.1%	23.9%	10	21	16	51
COMMUNICATION SERVICES	11.9	2.7%	15.1%	0	1	0	8
CONSUMER STAPLES	9.8	6.7%	24.6%	1	4	2	24
CONSUMER DISCRETIONARY	5.4	0.0%	25.5%	6	16	7	40
UTILITIES	13.3	4.1%	15.4%	0	1	1	7
HEALTH CARE	7.2	3.7%	21.1%	10	17	11	39
INFORMATION TECHNOLOGY	5.7	2.4%	26.0%	13	26	18	46

Source: Bloomberg Finance L.P.

The Consumer Discretionary, Technology and Real Estate sectors in the US have relatively high proportion of shorter duration debt.

Figure 10: Nonfinancial corporate business: Net Interest Expense versus US 10Y bond yield



Source: Bloomberg Finance L.P., FRED

This suggests that the startling divergence that was seen between the rising interest rates and falling net interest expense seen over the past 3 years is set to start closing.

Our analysts have flagged stocks like Safran, BAE systems, Sanofi, GSK and Novartis among those that have benefitted from this.

The basket of stocks with high refinancing needs will likely keep struggling...

In our 2024 outlook report, we had introduced a couple of stock baskets centered around this theme.

Table 4: JPM European losers of higher financing costs - JPDEHFCL Index

Name	Ticker	Sector	ND/EBITDA 2024e
Ocado Group PLC	OCDO LN	Staples	9.5
United Utilities Group PLC	UUJ LN	Utilities	8.8
Severn Trent PLC	SVT LN	Utilities	7.4
National Grid PLC	NGJ LN	Utilities	6.5
Cellnex Telecom SA	CLNX SM	Comm. Svcs	6.2
Snam SpA	SRG IM	Utilities	6.1
Enagas SA	ENG SM	Utilities	5.1
Infrastrutture Wireless Italia	INW IM	Comm. Svcs	4.6
Grifols SA	GRF SM	Health care	4.4
Redeia Corp SA	RED SM	Utilities	4.0
LANXESS AG	LXS GR	Materials	4.0
Fresenius SE & Co KGaA	FRE GR	Health care	3.6
Wizz Air Holdings Plc	WIZZ LN	Industrials	3.0
Fresenius Medical Care AG & Co	FME GR	Health care	2.9
Bayer AG	BAYN GR	Health care	2.8
Fluidra SA	FDR SM	Industrials	2.8
Nexi SpA	NEXI IM	Financials	2.8
Diageo PLC	DGE LN	Staples	2.7
Pernod Ricard SA	RI FP	Staples	2.7
Anheuser-Busch InBev SA/NV	ABI BB	Staples	2.7
Coca-Cola HBC AG	CCH LN	Staples	2.7
Akzo Nobel NV	AKZA NA	Materials	2.5
BASF SE	BAS GR	Materials	2.5
Givaudan SA	GIVN SW	Materials	2.5
British American Tobacco PLC	BATS LN	Staples	2.4
Electrolux AB	ELUXB SS	Discretionary	2.4
Alstom SA	ALO FP	Industrials	2.3
ams-OSRAM AG	AMS SW	IT	2.2
Ashtead Group PLC	AHT LN	Industrials	2.2
Koninklijke Philips NV	PHIA NA	Health care	2.0
Eurofins Scientific SE	ERF FP	Health care	2.0
Symrise AG	SY1 GR	Materials	1.7
RELX PLC	REL LN	Industrials	1.6
DSV A/S	DSV DC	Industrials	1.4
Valeo SE	FR FP	Discretionary	1.2

Source: J.P. Morgan

On the negative side, we identified companies that have high leverage and face meaningful refinancing risk in the near-term.

...while cash rich companies should keep working in the near term

Table 5: JPM European Beneficiaries of higher rates - JPDEHFCW Index

Name	Ticker	Sector
Publicis Groupe SA	PUB FP	Comm. Svcs
Renault SA	RNO FP	Discretionary
Mercedes-Benz Group AG	MBG GR	Discretionary
Stellantis NV	STLAM IM	Discretionary
Industria de Diseno Textil SA	ITX SM	Discretionary
Whitbread PLC	WTB LN	Discretionary
Volkswagen AG	VOW GR	Discretionary
Beiersdorf AG	BEI GR	Staples
KONE AG	KNEBV FH	Financials
Banco BPM SpA	BAMI IM	Financials
Banco Bilbao Vizcaya Argentari	BBVA SM	Financials
Bank of Ireland Group PLC	BIRG ID	Financials
Bankinter SA	BKT SM	Financials
CaixaBank SA	CABK SM	Financials
Intesa Sanpaolo SpA	ISP IM	Financials
UniCredit SpA	UCG IM	Financials
AIB Group PLC	AIBG ID	Financials
Banco de Sabadell SA	SAB SM	Financials
Schindler Holding AG	SCHP SW	Industrials
Epiroc AB	EPIA SS	Industrials
Airbus SE	AIR FP	Industrials
Dassault Aviation SA	AM FP	Industrials
Ryanair Holdings PLC	RYA ID	Industrials
Spectris PLC	SXS LN	IT
Dassault Systemes SE	DSY FP	IT
SAP SE	SAP GR	IT
Centrica PLC	CNA LN	Utilities

Source: J.P. Morgan

On the other hand, we argued that companies that are cash rich, or benefit from still high interest rates, will be well positioned.

Figure 11: JPM Beneficiaries of higher rates basket relative



Source: Bloomberg Finance L.P.

This losers basket has lagged the Stoxx600 index by almost 20% over the last year, while beneficiaries basket is outperforming the Stoxx600 index by 14% since the start of last year. We believe this trend should continue, at least in the 1H of this year.

2) Corporate topline was very strong post COVID, with high pricing power, but these are not sustainable

Figure 12: USD GDP Deflator



Source: J.P. Morgan

Corporates benefitted from the very strong topline growth post COVID. Many had like-for-like sales growth of a magnitude never seen before. This was helped by strong consumer backdrop, supported by ample liquidity.

Figure 13: US Manufacturing PMI - Supplier Delivery Times



Source: J.P. Morgan

At the same time, the supply chain distortions created by COVID-related shutdowns created huge supply-demand imbalances. While this at face value increased costs and resulted in production outages in a wide range of industries, companies were able to more than offset any negative impact on their bottom-line through aggressive pricing.

Figure 14: US Retail trade - Motor Vehicle Inventory/sales



Source: J.P. Morgan

We believe that this period of very strong pricing power is ending. Inventory levels across a number of industries are normalising, as are sales.

Figure 15: MSCI World12m trailing EPS and Global PPI



Source: Datastream, J.P. Morgan

As PPIs turn negative, corporate earnings will likely follow.

Figure 16: MSCI Eurozone 12m trailing EPS and Euro area PPI



Source: Bloomberg Finance L.P., Datastream

Producer prices have seen bigger declines in the Euro Area, and the positive fit is as good.

3) ULCs could pick up as topline slows, and as wage costs are sticky

Figure 17: Unemployment rate and avg hourly earnings



Source: FRED

The strong improvement in productivity was a big factor behind the resilience in margins over the past year, but that could have been flattered by elevated topline growth, which was supported by one-off factors such as excess liquidity and the aggressive government spending. Even though the labour market was extremely tight and delivered higher wages, the strong output has kept unit labour costs in check.

Figure 18: Euro area negotiated pay growth



Source: J.P. Morgan

US wage growth has peaked, but could stay elevated for a while. Eurozone wage growth also appears to be peaking, but at elevated levels.

Figure 19: GDP Deflator minus ULCs - US



Source: J.P. Morgan, FRED

Looking forward, wages will likely remain sticky around current elevated levels, and productivity might slow, as topline slows. Our margin proxy (GDP deflator minus ULCs) has peaked and we believe it will continue to weaken further.

Earnings projections are continuing to be revised lower...

Figure 20: Weekly EPS revisions for key regions



Source: IBES

EPS revisions remain negative for all major markets, Japan being the notable exception, where we keep our key OW.

Figure 21: MSCI Europe sectors 2024 EPS - change ytd



Source: IBES

Except Retail, every European sector has seen cuts to its 2024 earnings projections in the last couple of months.

Figure 22: MSCI US sectors 2024 EPS change ytd



Source: IBES

Even in the US, which has delivered stronger EPS growth, most sectors have seen downgrades to 2024 earnings projections.

...all the EPS growth is still narrowly concentrated in the Magnificent 7...

Table 6: Q4 Earnings summary

Q4 Earnings Summary		
	S&P500	Stoxx600
% companies reported	82%	55%
% companies beating EPS	77%	52%
EPS %y/y	7%	-11%
% companies beating Sales	57%	37%
Sales %y/y	4%	-7%

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

On the surface, S&P500 earnings delivery of 7% y/y in Q4 appears healthy.

Figure 23: S&P500 sector contribution to 4Q'23 earnings growth



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

However, we note that ex the magnificent 7 (Apple, Microsoft, Amazon, Nvidia, Meta, Tesla and Alphabet), US earnings growth is actually negative at -4% y/y.

Table 7: Magnificent 7, SPX and SPX ex Mag 7 earnings growth

23e Net income growth	
APPLE	-2.8%
AMAZON.COM	-
MICROSOFT	5.6%
NVIDIA	-25.7%
ALPHABET A	21.9%
TESLA	-24.2%
META PLATFORMS A	61.1%
Magnificent 7	18.2%
S&P ex Magnificent 7	-4.1%
S&P500	-1.0%

Source: Datastream

For the whole last year, Magnificent 7 earnings grew strongly, and the remaining 493 stocks recorded negative EPS growth.

Figure 24: Magnificent 7 and S&P500 performance



Source: Datastream

The divergence in earnings for the Magnificent 7 stocks and the rest of the market largely explains the wide divergence in relative performance over the last year.

...we maintain OW Growth vs Value style...

Figure 25: MSCI World Growth vs Value 12m Fwd. EPS



Source: Datastream

Similarly, we note that Growth stocks have been delivering much better earnings compared to Value.

Figure 26: MSCI US and Europe Growth vs Value



Source: Datastream

This is behind our continued preference for Growth over Value style that we held through 2023, and are continuing this year.

...S&P500 earnings are more international than NIPA profits... if USD strengthens, S&P500 earnings might not be able to outperform NIPA

Figure 27: USD net positioning



Source: J.P. Morgan

The question is could S&P500 earnings perform better than NIPA profits. Perhaps not if USD strengthens, as S&P500 earnings are typically more international than NIPA profits. We note that USD positioning is not very stretched at present, and the interest rate differential could work in support of USD as we move through this year.

Equity Strategy Key Calls and Drivers

So far this year, US is ahead of International, Growth is outperforming Value, large caps are again beating small, and China continued struggling. We believe that this, ultimately unhealthy, high concentration and narrow leadership is set to continue until something breaks. To buy Value, beta and International stocks, one needs to see a reflationary backdrop, in our view, but we could have the exact opposite. The risk is of a disappointment on both sides of the Goldilocks narrative. Fed cuts might still be overdiscounted, despite the recent hawkish repricing, and the chances are that inflation picks up again, supply side driven, rather than due to stronger activity, freight rates have nearly tripled. We believe our long duration call made in October will have legs in 2024, but have argued at the start of this year that yields will likely consolidate near term, and the USD could be bottoming out. Regionally, we have preferred US to International stocks since May of last year, and don't see that changing yet. We remain cautious on China, keep fading the bounces, and keep OW Japan – it remains our top regional pick. We are OW Growth vs Value, continuing our call from 2023, and continue to be UW Banks call started in Q4 of last year, after three years of Banks beating the market.

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

Driver	Impact	Our Core Working Assumptions	Recent Developments
Global Growth	Neutral	At risk of weakening as consumer strength wanes	Global composite PMI is at 51.8
European Growth	Negative	Manufacturing and services are converging on the downside; industry data stays weak	
Monetary Policy	Neutral	Fed pivot could be accompanied by activity weakness	
Currency	Neutral	USD could strengthen again	
Earnings	Negative	Corporate pricing power is likely to weaken from here	2024 EPS projections are continuing their downtrend
Valuations	Negative	At 21x, US forward P/E is still stretched, especially vs real yield	MSCI Europe on 13.5x Fwd P/E
Technicals	Negative	Sentiment and positioning are stretched post the Nov-Dec rally	RSIs are in overbought territory

Source: J.P. Morgan estimates

Table 9: : 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 10: Index targets

	Dec '24 Target	22-Feb-24	% upside
MSCI Eurozone	256	286	-11%
FTSE 100	7,700	7,684	0%
MSCI EUROPE	1,850	1,986	-7%
DJ EURO STOXX 50	4,250	4,855	-12%
DJ STOXX 600 E	460	495	-7%

Source: J.P. Morgan.

Table 11: Key Global sector calls

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

Source: J.P. Morgan

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

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

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

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

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

Source: J.P. Morgan estimates.

Top Picks

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

Name	Ticker	Sector	Rating	Price	Currency	Market Cap (€ Bn)	EPS Growth			Dividend Yield	12m Fwd P/E			Performance	
							23e	24e	25e	24e	Current	10Y Median	% Premium	-3m	-12m
ENI	ENI IM	Energy	OW	14	E	48.0	-35%	-8%	2%	6.5%	6.3	12.7	-51%	-3%	1%
TOTALENERGIES	TTE FP	Energy	OW	59	E	141.1	-33%	-4%	4%	5.3%	7.0	10.6	-34%	-4%	1%
SHELL	SHEL LN	Energy	OW	30	E	189.6	-23%	0%	5%	4.0%	7.7	11.2	-32%	0%	6%
NOVOZYMES B	NZYMB DC	Materials	OW	386	DK	24.2	-18%	17%	10%	1.1%	29.8	29.2	2%	7%	10%
CRH PUBLIC LIMITED	CRH LN	Materials	OW	78	US\$	49.7	-11%	10%	9%	1.8%	15.5	15.1	3%	28%	69%
RIO TINTO	RIO LN	Materials	OW	5170	£	103.7	-11%	10%	-9%	6.7%	8.4	10.3	-19%	-6%	-14%
NORSK HYDRO	NHY NO	Materials	OW	57	NK	10.2	-60%	21%	36%	4.4%	10.4	12.9	-20%	-10%	-27%
ANGLO AMERICAN	AAL LN	Materials	OW	1770	£	25.4	-52%	-5%	5%	4.1%	10.0	9.5	4%	-21%	-43%
SCHNEIDER ELECTRIC	SU FP	Industrials	OW	208	E	118.9	2%	15%	11%	1.7%	24.4	16.4	48%	26%	35%
ASHTREAD GROUP	AHT LN	Industrials	OW	5524	£	28.3	26%	3%	14%	1.4%	15.8	14.1	12%	17%	2%
RYANAIR HOLDINGS	RYA ID	Industrials	OW	20	E	23.0	-	31%	35%	0.0%	9.4	13.1	-29%	16%	40%
AIRBUS	AIR FP	Industrials	OW	147	E	116.4	10%	3%	25%	1.7%	21.6	18.4	18%	10%	20%
MTU AERO ENGINES HLDG.	MTX GR	Industrials	OW	215	E	11.6	24%	11%	13%	2.1%	17.4	18.1	-4%	14%	-7%
STELLANTIS	STLAM IM	Discretionary	OW	24	E	76.8	12%	-7%	1%	6.4%	4.4	4.8	-10%	31%	49%
BMW	BMW GR	Discretionary	OW	105	E	66.6	-34%	-10%	2%	5.3%	6.4	7.7	-17%	11%	-
INDITEX	ITX SM	Discretionary	OW	41	E	127.9	27%	30%	9%	3.6%	21.7	24.3	-11%	11%	44%
ADIDAS	ADS GR	Discretionary	OW	187	E	33.7	-110%	-	128%	0.7%	52.1	24.6	112%	0%	33%
RICHEMONT N	CFR SW	Discretionary	OW	136	SF	84.2	78%	-2%	11%	1.8%	20.1	20.4	-2%	19%	-6%
COMPASS GROUP	CPG LN	Discretionary	OW	2203	£	44.0	50%	13%	12%	1.9%	22.2	20.8	7%	6%	13%
COLRUYT GROUP	COLR BB	Staples	OW	40	E	5.1	-27%	61%	7%	2.0%	15.1	17.6	-14%	3%	56%
ANHEUSER-BUSCH INBEV	ABI BB	Staples	OW	58	E	118.1	-7%	15%	14%	2.1%	18.0	19.5	-8%	1%	3%
NOVO NORDISK 'B'	NOVOB DC	Health Care	OW	853	DK	516.2	52%	23%	21%	1.1%	36.1	22.7	59%	22%	71%
ASTRAZENECA	AZN LN	Health Care	OW	10036	£	182.0	9%	13%	11%	2.3%	15.2	17.8	-14%	-1%	-13%
SMITH & NEPHEW	SNV LN	Health Care	OW	1138	£	11.6	12%	12%	8%	2.8%	13.7	18.4	-26%	10%	-7%
UBS GROUP	UBSG SW	Financials	OW	25	SF	89.4	-99%	3670%	99%	2.5%	21.1	10.4	104%	6%	23%
NATWEST GROUP	NWVG LN	Financials	OW	228	£	23.3	38%	-27%	12%	7.4%	5.9	10.4	-43%	12%	-20%
ING GROEP	INGA NA	Financials	OW	13	E	44.3	106%	-12%	11%	8.7%	6.7	9.1	-27%	0%	-1%
INTESA SANPAOLO	ISP IM	Financials	OW	3	E	53.0	79%	15%	1%	10.2%	6.4	10.2	-37%	14%	17%
LONDON STOCK EXCHANGE GROUP	LSEG LN	Financials	OW	8844	£	56.0	3%	10%	14%	1.4%	23.8	22.7	5%	0%	18%
AMUNDI (WI)	AMUN FP	Financials	OW	62	E	12.6	4%	4%	7%	6.7%	9.7	12.7	-23%	11%	1%
DASSAULT SYSTEMES	DSY FP	IT	OW	43	E	57.9	6%	7%	11%	0.6%	33.0	31.5	5%	1%	15%
ASML HOLDING	ASML NA	IT	OW	877	E	350.4	41%	-6%	51%	0.7%	43.1	26.5	63%	38%	48%
ASM INTERNATIONAL	ASM NA	IT	OW	558	E	27.6	-3%	8%	29%	0.6%	39.7	16.2	146%	22%	78%
DEUTSCHE TELEKOM	DTE GR	Telecoms	OW	22	E	111.5	-10%	10%	13%	3.8%	12.1	14.3	-15%	3%	6%
BT GROUP	BT/A LN	Telecoms	OW	107	£	12.5	9%	-11%	-1%	7.2%	5.7	8.9	-35%	-12%	-24%
RELX	REL LN	Industrials	OW	3475	£	76.5	12%	8%	9%	1.7%	27.9	19.3	45%	14%	36%
HELLOFRESH	HFG GR	Staples	OW	12	E	2.1	-47%	60%	46%	0.0%	10.8	19.6	-45%	-16%	-43%
RWE	RWE GR	Utilities	OW	31	E	23.1	24%	-51%	-18%	3.5%	11.2	13.0	-14%	-18%	-23%
ENEL	ENEL IM	Utilities	OW	6	E	60.3	23%	4%	1%	7.7%	8.8	12.0	-27%	-7%	13%
SEGRO	SGRO LN	Real Estate	OW	871	£	12.5	6%	7%	7%	3.2%	24.7	25.3	-2%	6%	5%

Source: Datastream, MSCI, IBES, J.P. Morgan, Prices and Valuations as of COB 22nd Feb, 2024. Past performance is not indicative of future returns.

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

Equity Flows Snapshot

Table 15: DM Equity Fund Flows Summary

	Regional equity fund flows									
	\$mn					% AUM				
	1w	1m	3m	ytd	12m	1w	1m	3m	ytd	12m
Europe ex UK	-170	-626	-421	-1,130	-13,385	0.0%	0.2%	-0.1%	0.2%	0.6%
UK	-204	-1,291	-5,453	-1,706	-27,686	-0.1%	-0.2%	-0.1%	-0.3%	-4.3%
US	-15,608	-5,327	85,647	-10,252	98,959	-0.1%	-0.5%	-2.2%	-0.6%	-9.8%
Japan	1,066	4,555	-3,691	4,236	11,862	-0.2%	-0.1%	1.0%	-0.1%	1.2%

Source: EPFR, as of 7th Feb, 2024

Figure 28: DM Equity Fund flows – last month



Source: EPFR, Japan includes BoJ purchases.

Figure 30: Cumulative fund flows into regional funds as a percentage of AUM



Source: EPFR, as of 7th Feb, 2024. Japan includes Non-ETF purchases only.

Figure 29: DM Equity Fund flows – last 12 months



Source: EPFR, Japan includes BoJ purchases.

Figure 31: 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 32: S&P500 RSI



Source: Bloomberg Finance L.P.

Figure 33: EuroStoxx50 RSI



Source: Bloomberg Finance L.P.

Figure 34: AAll Bull-Bear



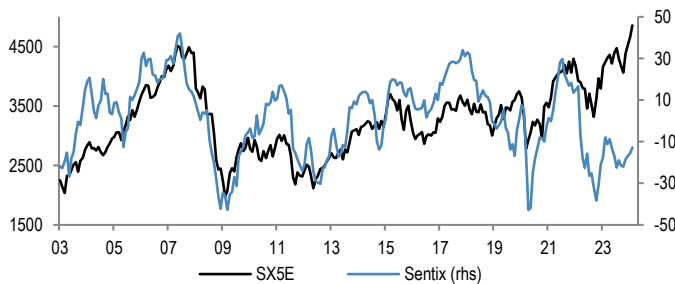
Source: Bloomberg Finance L.P.

Figure 35: Put-call ratio



Source: Bloomberg Finance L.P.

Figure 36: Sentix Sentiment Index vs SX5E



Source: Bloomberg Finance L.P.

Figure 37: Equity Skew



Source: Bloomberg Finance L.P.

Figure 38: Speculative positions in S&P500 futures contracts



Source: Bloomberg Finance L.P.

Figure 39: VIX



Source: Bloomberg Finance L.P.

Performance

Table 16: Sector Index Performances — MSCI Europe

(%change) Industry Group		Local currency		
		4week	12m	YTD
Europe		3.7	6.0	3.6
Energy		1.7	(3.2)	(3.3)
Materials		1.6	(3.5)	(3.5)
	Chemicals	4.9	1.9	(0.3)
	Construction Materials	8.8	40.7	9.2
	Metals & Mining	(5.6)	(23.8)	(13.1)
Industrials		5.0	17.0	5.3
	Capital Goods	5.9	19.7	5.7
	Transport	(5.3)	(0.3)	(3.4)
	Business Svs	6.0	13.6	8.9
Consumer Discretionary		12.4	5.9	9.5
	Automobile	16.2	11.1	11.5
	Consumer Durables	17.6	3.3	12.3
	Media	1.5	13.3	6.2
	Retailing	1.1	1.7	0.0
	Hotels, Restaurants & Leisure	2.9	11.0	6.6
Consumer Staples		2.4	(6.9)	0.7
	Food & Drug Retailing	(0.6)	(4.4)	(3.8)
	Food Beverage & Tobacco	1.5	(11.2)	0.3
	Household Products	5.2	2.5	2.8
Healthcare		4.0	6.7	5.8
Financials		2.5	5.4	2.3
	Banks	2.2	3.0	1.3
	Diversified Financials	2.0	8.6	0.7
	Insurance	3.3	7.3	5.3
Real Estate		(1.1)	(2.3)	(5.5)
Information Technology		4.1	34.6	15.7
	Software and Services	2.0	43.0	14.5
	Technology Hardware	(0.4)	(1.1)	(1.3)
	Semicon & Semicon Equip	6.2	38.0	19.9
Telecommunications Services		(1.6)	(1.6)	2.3
Utilities		(4.7)	(4.1)	(8.7)

Source: MSCI, Datastream, as at COB 22nd Feb, 2024.

Table 17: Country and Region Index Performances

(%change) Country	Index	Local Currency			US\$		
		4week	12m	YTD	4week	12m	YTD
Austria	ATX	(0.7)	(1.3)	(0.6)	(0.9)	0.4	(2.8)
Belgium	BEL 20	1.8	(5.0)	(0.3)	1.6	(3.3)	(2.4)
Denmark	KFX	11.3	34.7	13.9	11.1	36.9	11.4
Finland	HEX 20	(2.6)	(12.0)	(2.0)	(2.8)	(10.5)	(4.1)
France	CAC 40	6.0	8.4	4.9	5.8	10.2	2.6
Germany	DAX	2.7	12.8	3.7	2.6	14.7	1.5
Greece	ASE General	4.9	28.9	9.8	4.7	31.1	7.4
Ireland	ISEQ	5.9	17.2	9.2	5.7	19.2	6.8
Italy	FTSE MIB	7.3	19.4	6.6	7.1	21.4	4.3
Japan	Topix	5.1	34.7	12.4	3.0	20.5	5.3
Netherlands	AEX	5.2	13.3	9.0	5.0	15.3	6.7
Norway	OBX	(1.0)	(0.8)	(2.8)	(1.4)	(2.6)	(6.1)
Portugal	BVL GEN	(4.4)	(6.0)	(10.0)	(4.6)	(4.4)	(12.0)
Spain	IBEX 35	2.2	10.5	0.4	2.1	12.4	(1.8)
Sweden	OMX	2.7	9.1	1.3	3.8	9.8	(1.3)
Switzerland	SMI	1.6	0.8	2.2	(0.0)	6.2	(2.4)
United States	S&P 500	3.9	27.5	6.7	3.9	27.5	6.7
United States	NASDAQ	3.4	39.4	6.9	3.4	39.4	6.9
United Kingdom	FTSE 100	2.1	(3.1)	(0.6)	1.4	1.4	(1.6)
EMU	MSCI EMU	4.3	9.5	5.2	4.1	11.4	3.0
Europe	MSCI Europe	3.7	6.0	3.6	3.3	8.9	1.2
Global	MSCI AC World	3.9	22.3	6.1	3.7	21.9	5.1

Source: MSCI, Datastream, as at COB 22nd Feb, 2024.

Earnings

Table 18: IBES Consensus EPS Sector Forecasts — MSCI Europe

	EPS Growth (%yoy)			
	2023	2024E	2025E	2026E
Europe	(3.4)	3.7	9.7	9.3
Energy	(32.1)	(3.3)	3.3	12.2
Materials	(38.1)	7.3	10.1	9.1
Chemicals	(34.7)	18.0	17.8	12.8
Construction Materials	10.9	6.2	8.9	0.1
Metals & Mining	(46.6)	0.1	2.0	9.8
Industrials	(1.0)	8.1	13.5	11.2
Capital Goods	21.0	12.4	13.4	11.2
Transport	(56.1)	(20.7)	18.5	11.9
Business Svs	4.5	8.2	10.7	10.8
Discretionary	7.1	2.4	10.2	9.4
Automobile	1.2	(3.5)	5.1	6.4
Consumer Durables	(5.3)	5.9	14.0	13.0
Media	(2.1)	10.3	9.3	10.1
Retailing	52.0	14.4	17.1	4.8
Hotels,Restaurants&Leisure	90.2	17.8	20.4	19.5
Staples	2.6	3.8	8.5	7.9
Food & Drug Retailing	3.1	6.2	12.0	7.4
Food Beverage & Tobacco	2.0	2.8	8.2	8.2
Household Products	4.2	5.8	8.1	7.4
Healthcare	2.6	5.9	14.0	11.0
Financials	15.5	6.2	7.7	7.3
Banks	29.0	0.9	4.4	4.6
Diversified Financials	(22.3)	20.5	22.2	23.1
Insurance	12.0	12.8	7.8	4.7
Real Estate	12.2	(4.2)	4.5	3.3
IT	22.2	(10.8)	27.8	15.3
Software and Services	46.2	(18.6)	20.5	12.9
Technology Hardware	(20.8)	11.5	8.2	9.4
Semicon & Semicon Equip	28.1	(12.0)	40.2	18.5
Telecoms	(10.5)	14.3	10.1	8.2
Utilities	3.0	(2.5)	1.2	1.7

Source: IBES, MSCI, Datastream. As at COB 22nd Feb, 2024.

Table 19: IBES Consensus EPS Country Forecasts

Country	Index	EPS growth (%change)			
		2023	2024E	2025E	2026E
Austria	ATX	(14.7)	(6.0)	3.7	(2.2)
Belgium	BEL 20	15.7	2.9	11.1	13.1
Denmark	Denmark KFX	(14.8)	26.1	20.8	16.3
Finland	MSCI Finland	(25.1)	5.9	10.9	9.2
France	CAC 40	(1.9)	2.3	8.6	9.4
Germany	DAX	3.6	(0.5)	11.7	9.5
Greece	MSCI Greece	8.4	(2.5)	5.3	22.0
Ireland	MSCI Ireland	35.3	(3.2)	1.7	8.9
Italy	MSCI Italy	9.8	(0.4)	2.0	4.3
Netherlands	AEX	(1.9)	0.8	13.2	11.0
Norway	MSCI Norway	(40.0)	4.9	5.2	2.2
Portugal	MSCI Portugal	33.4	3.4	6.0	7.9
Spain	IBEX 35	6.2	2.2	4.5	5.4
Sweden	OMX	31.9	0.5	8.1	7.1
Switzerland	SMI	(3.2)	9.4	13.2	9.5
United Kingdom	FTSE 100	(12.1)	3.1	7.7	10.1
EMU	MSCI EMU	4.3	2.8	9.8	8.5
Europe ex UK	MSCI Europe ex UK	0.9	4.0	10.6	8.9
Europe	MSCI Europe	(3.4)	3.7	9.7	9.3
United States	S&P 500	2.2	9.6	13.5	11.5
Japan	Topix	3.0	14.4	8.5	8.9
Emerging Market	MSCI EM	(4.0)	16.2	15.3	12.2
Global	MSCI AC World	0.3	8.8	12.6	10.8

Source: IBES, MSCI, Datastream. As at COB 22nd Feb, 2024** Japan refers to the period from March in the year stated to March in the following year – EPS post-goodwill

Valuations

Table 20: IBES Consensus European Sector Valuations

	P/E			Dividend Yield			EV/EBITDA			Price to Book		
	2024e	2025e	2026e	2024e	2025e	2026e	2024e	2025e	2026e	2024e	2025e	2026e
Europe	13.8	12.5	11.5	3.5%	3.7%	4.6%	7.9	7.3	6.9	1.9	1.8	1.7
Energy	7.2	7.0	6.3	5.7%	5.7%	5.8%	3.2	3.2	3.1	1.1	1.0	1.0
Materials	14.7	13.4	12.3	3.4%	3.7%	3.9%	7.2	6.5	5.9	1.6	1.5	1.4
Chemicals	22.7	19.3	17.1	2.8%	3.0%	3.2%	11.1	10.0	9.1	2.3	2.2	2.1
Construction Materials	13.2	12.1	12.1	3.0%	3.1%	3.2%	6.8	6.3	4.3	1.5	1.4	0.8
Metals & Mining	9.1	8.9	8.1	4.6%	4.9%	5.3%	4.5	4.1	3.6	1.1	1.0	1.0
Industrials	19.3	17.0	15.3	2.4%	2.6%	7.9%	9.8	8.9	8.0	3.2	3.0	2.8
Capital Goods	19.0	16.8	15.1	2.3%	2.6%	9.3%	10.1	9.0	8.1	3.3	3.1	2.9
Transport	17.8	15.0	13.1	3.2%	3.4%	3.4%	7.2	6.8	5.8	1.7	1.7	1.6
Business Svcs	22.4	20.2	18.2	2.3%	2.5%	2.7%	13.0	11.8	10.8	6.2	5.6	4.9
Discretionary	13.8	12.5	11.4	2.7%	3.0%	3.1%	5.3	4.7	4.8	1.9	1.8	1.8
Automobile	6.4	6.1	5.8	5.0%	5.3%	5.3%	1.8	1.3	2.0	0.8	0.7	0.7
Consumer Durables	24.7	21.7	19.3	1.7%	2.0%	2.1%	13.8	12.5	11.4	4.4	4.0	3.6
Media & Entertainment	16.8	15.4	13.4	2.3%	2.5%	2.6%	11.6	9.6	8.6	1.9	1.8	4.0
Retailing	14.4	12.3	11.8	2.5%	2.8%	3.1%	9.8	8.7	7.1	2.7	2.6	2.1
Hotels, Restaurants & Leisure	23.8	19.7	16.5	2.1%	2.4%	2.8%	12.1	10.4	9.5	4.0	3.6	3.5
Staples	17.2	15.8	14.6	3.1%	3.3%	3.6%	10.8	10.1	9.4	2.9	2.7	2.6
Food & Drug Retailing	12.0	10.7	10.0	3.9%	4.3%	4.7%	6.1	5.7	5.8	1.6	1.5	1.3
Food Beverage & Tobacco	16.7	15.4	14.2	3.5%	3.7%	4.0%	10.7	10.0	9.0	2.6	2.5	2.3
Household Products	20.5	19.0	17.7	2.3%	2.5%	2.7%	14.0	13.0	12.5	4.2	3.9	3.9
Healthcare	17.5	15.3	13.8	2.5%	2.7%	2.8%	12.2	10.8	9.9	3.4	3.1	3.0
Financials	8.6	8.0	7.4	5.8%	6.0%	6.5%	-	-	-	1.0	1.0	0.9
Banks	6.5	6.2	6.0	8.0%	8.0%	8.5%	-	-	-	0.7	0.7	0.6
Diversified Financials	14.3	11.7	9.7	2.5%	2.8%	3.1%	-	-	-	1.3	1.4	1.3
Insurance	10.5	9.7	9.2	5.5%	5.8%	6.1%	-	-	-	1.6	1.5	1.4
Real Estate	14.0	13.4	12.9	4.4%	4.6%	4.9%	-	-	-	0.8	0.8	0.8
IT	30.0	23.5	20.3	1.2%	1.3%	1.4%	17.7	14.1	12.1	5.1	4.6	4.0
Software and Services	30.2	25.1	22.2	1.3%	1.4%	1.5%	19.0	15.5	13.4	4.5	4.2	3.7
Technology Hardware	15.5	14.3	13.1	2.7%	2.7%	2.9%	8.8	8.0	6.8	1.9	1.7	1.6
Semicon & Semicon Equip	35.4	25.2	21.3	0.8%	1.0%	1.1%	20.8	15.4	13.1	8.4	7.1	5.9
Communication Services	14.2	12.9	11.7	4.3%	4.4%	4.6%	6.6	6.1	5.7	1.4	1.3	1.4
Utilities	11.8	11.7	11.5	5.4%	5.6%	5.6%	7.9	7.9	8.2	1.5	1.4	1.4

Source: IBES, MSCI, Datastream. As at COB 22nd Feb, 2024.

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

Country	Index	P/E				Dividend Yield
		12mth Fwd	2024E	2025E	2026E	12mth Fwd
Austria	ATX	7.5	7.5	7.3	7.1	6.1%
Belgium	BEL 20	15.4	15.7	14.1	12.3	3.1%
Denmark	Denmark KFX	27.7	28.6	23.7	20.4	1.7%
Finland	MSCI Finland	14.5	14.8	13.3	12.2	4.6%
France	CAC 40	13.1	13.3	12.2	11.2	3.3%
Germany	DAX	11.8	12.1	10.8	9.9	3.5%
Greece	MSCI Greece	30.9	31.2	29.6	20.6	1.7%
Ireland	MSCI Ireland	10.6	10.7	10.5	9.6	3.7%
Italy	MSCI Italy	8.7	8.8	8.6	8.2	5.7%
Netherlands	AEX	15.0	15.3	13.5	12.4	2.5%
Norway	MSCI Norway	10.1	10.2	9.7	9.5	6.8%
Portugal	MSCI Portugal	13.8	14.0	13.2	12.2	4.1%
Spain	IBEX 35	10.5	10.6	10.2	9.6	5.1%
Sweden	OMX	15.0	15.2	14.1	13.3	3.8%
Switzerland	SMI	16.9	17.3	15.3	13.9	3.4%
United Kingdom	FTSE 100	10.8	11.0	10.2	9.2	4.3%
EMU	MSCI EMU	13.0	13.2	12.0	11.1	3.5%
Europe ex UK	MSCI Europe ex UK	14.5	14.8	13.4	12.3	3.3%
Europe	MSCI Europe	13.5	13.8	12.5	11.5	3.6%
United States	S&P 500	20.7	21.4	18.8	16.8	1.5%
Japan	Topix	15.0	16.2	14.9	13.7	2.3%
Emerging Market	MSCI EM	11.6	11.9	10.6	9.3	3.1%
Global	MSCI AC World	17.1	17.5	16.0	14.3	2.1%

Source: IBES, MSCI, Datastream. As at COB 22nd Feb, 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 22: Economic Outlook in Summary

	Real GDP			Real GDP						Consumer prices			
	% oya			% over previous period, saar						% oya			
	2023E	2024E	2025E	3Q23	4Q23	1Q24E	2Q24E	3Q24E	4Q24E	3Q23	1Q24E	3Q24E	1Q25E
United States	2.5	2.0	1.5	4.9	3.3	1.7	0.5	0.5	0.7	3.6	3.0	2.8	2.5
Eurozone	0.5	0.4	1.0	-0.5	0.2	0.5	0.7	0.7	0.7	5.0	2.6	2.1	1.9
United Kingdom	0.1	0.0	0.1	-0.5	-1.4	1.0	0.8	0.0	-0.5	6.7	3.6	1.7	2.3
Japan	1.9	0.5	0.7	-3.3	-0.4	1.3	1.6	0.7	0.7	3.1	2.6	2.3	2.1
Emerging markets	4.1	3.8	3.6	5.7	3.6	4.0	3.6	3.7	3.6	3.8	3.8	3.5	3.5
Global	2.7	2.3	2.2	3.5	2.5	2.4	1.9	1.9	2.0	4.0	3.3	2.9	2.8

Source: J.P. Morgan economic research J.P. Morgan estimates, as of COB 16th Feb, 2024

Table 23: Official Rates Outlook

	Official interest rate	Current	Last change (bp)	Forecast next change (bp)	Forecast for			
					Mar 24	Jun 24	Sep 24	Dec 24
					United States	Federal funds rate	5.50	26 Jul 23 (+25bp)
Eurozone	Depo rate	4.00	14 Sep 23 (+25bp)	Jun 24 (-25bp)	4.00	3.75	3.50	3.00
United Kingdom	Bank Rate	5.25	03 Aug 23 (+25bp)	Aug 24 (-25bp)	5.25	5.25	5.00	4.50
Japan	Pol rate IOER	-0.10	Jan 16 (-20bp)	3Q24 (+10bp)	-0.10	-0.10	0.00	0.00

Source: J.P. Morgan estimates, Datastream, as of COB 16th Feb, 2024

Table 24: 10-Year Government Bond Yield Forecasts

10 Yr Govt BY	23-Feb-24	Forecast for end of			
		Mar 24	Jun 24	Sep 24	Dec 24
US	4.33	3.95	3.80	3.75	3.65
Euro Area	2.45	2.15	2.00	1.85	1.75
United Kingdom	4.11	3.80	3.65	3.55	3.45
Japan	0.72	0.60	0.65	0.80	0.80

Source: J.P. Morgan estimates, Datastream, forecasts as of COB 9th Feb, 2024

Table 25: Exchange Rate Forecasts vs. US Dollar

Exchange rates vs US\$	22-Feb-24	Forecast for end of			
		Mar 24	Jun 24	Sep 24	Dec 24
EUR	1.08	1.03	1.05	1.10	1.13
GBP	1.26	1.18	1.19	1.24	1.26
CHF	0.88	0.92	0.90	0.86	0.85
JPY	151	150	148	146	144
DXY	104.0	108.2	106.5	102.5	100.1

Source: J.P. Morgan estimates, Datastream, forecasts as of COB 9th Feb, 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 January 01, 2024

	Overweight (buy)	Neutral (hold)	Underweight (sell)
J.P. Morgan Global Equity Research Coverage*	47%	39%	13%
IB clients**	48%	43%	32%
JPMS Equity Research Coverage*	46%	42%	12%
IB clients**	68%	63%	46%

*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 (JPMS) [MCI (P) 030/08/2023 and Co. Reg. No.: 199405335R], which is a member of the Singapore Exchange Securities Trading Limited, and/or JPMorgan Chase Bank, N.A., Singapore branch (JPMCB Singapore), both of which are regulated by the Monetary Authority of Singapore. This material is issued and distributed in Singapore only to accredited investors, expert investors and institutional investors, as defined in Section 4A of the Securities and Futures Act, Cap. 289 (SFA). This material is not intended to be issued or distributed to any retail investors or any other investors that do not fall into the classes of "accredited investors," "expert investors" or "institutional investors," as defined under Section 4A of the SFA. Recipients of this material in Singapore are to contact JPMS or JPMCB Singapore in respect of any matters arising from, or in connection with, the material. **South Africa:** J.P. Morgan Equities South Africa Proprietary Limited and JPMorgan Chase Bank, N.A., Johannesburg Branch are members of the Johannesburg Securities Exchange and are regulated by the Financial Services Conduct Authority (FSCA). **Taiwan:** J.P. Morgan Securities

(Taiwan) Limited is a participant of the Taiwan Stock Exchange (company-type) and regulated by the Taiwan Securities and Futures Bureau. Material relating to equity securities is issued and distributed in Taiwan by J.P. Morgan Securities (Taiwan) Limited, subject to the license scope and the applicable laws and the regulations in Taiwan. According to Paragraph 2, Article 7-1 of Operational Regulations Governing Securities Firms Recommending Trades in Securities to Customers (as amended or supplemented) and/or other applicable laws or regulations, please note that the recipient of this material is not permitted to engage in any activities in connection with the material that may give rise to conflicts of interests, unless otherwise disclosed in the "Important Disclosures" in this material. **Thailand:** This material is issued and distributed in Thailand by JPMorgan Securities (Thailand) Ltd., which is a member of the Stock Exchange of Thailand and is regulated by the Ministry of Finance and the Securities and Exchange Commission, and its registered address is 3rd Floor, 20 North Sathorn Road, Silom, Bangrak, Bangkok 10500. **UK:** Unless specified to the contrary, research is distributed in the UK by J.P. Morgan Securities plc ("JPMS plc") which is a member of the London Stock Exchange and is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. JPMS plc is registered in England & Wales No. 2711006, Registered Office 25 Bank Street, London, E14 5JP. This material is directed in the UK only to: (a) persons having professional experience in matters relating to investments falling within article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) (Order) 2005 ("the FPO"); (b) persons outlined in article 49 of the FPO (high net worth companies, unincorporated associations or partnerships, the trustees of high value trusts, etc.); or (c) any persons to whom this communication may otherwise lawfully be made; all such persons being referred to as "UK relevant persons". This material must not be acted on or relied on by persons who are not UK relevant persons. Any investment or investment activity to which this material relates is only available to UK relevant persons and will be engaged in only with UK relevant persons. Research issued by JPMS plc has been prepared in accordance with JPMS plc's policy for prevention and avoidance of conflicts of interest related to the production of Research which can be found at the following link: [J.P. Morgan EMEA - Research Independence Policy](#). U.S.: J.P. Morgan Securities LLC ("JPMS") is a member of the NYSE, FINRA, SIPC, and the NFA. JPMorgan Chase Bank, N.A. is a member of the FDIC. Material published by non-U.S. affiliates is distributed in the U.S. by JPMS who accepts responsibility for its content.

General: Additional information is available upon request. The information in this material has been obtained from sources believed to be reliable. While all reasonable care has been taken to ensure that the facts stated in this material are accurate and that the forecasts, opinions and expectations contained herein are fair and reasonable, JPMorgan Chase & Co. or its affiliates and/or subsidiaries (collectively J.P. Morgan) make no representations or warranties whatsoever to the completeness or accuracy of the material provided, except with respect to any disclosures relative to J.P. Morgan and the Research Analyst's involvement with the issuer that is the subject of the material. Accordingly, no reliance should be placed on the accuracy, fairness or completeness of the information contained in this material. There may be certain discrepancies with data and/or limited content in this material as a result of calculations, adjustments, translations to different languages, and/or local regulatory restrictions, as applicable. These discrepancies should not impact the overall investment analysis, views and/or recommendations of the subject company(ies) that may be discussed in the material. J.P. Morgan accepts no liability whatsoever for any loss arising from any use of this material or its contents, and neither J.P. Morgan nor any of its respective directors, officers or employees, shall be in any way responsible for the contents hereof, apart from the liabilities and responsibilities that may be imposed on them by the relevant regulatory authority in the jurisdiction in question, or the regulatory regime thereunder. Opinions, forecasts or projections contained in this material represent J.P. Morgan's current opinions or judgment as of the date of the material only and are therefore subject to change without notice. Periodic updates may be provided on companies/industries based on company-specific developments or announcements, market conditions or any other publicly available information. There can be no assurance that future results or events will be consistent with any such opinions, forecasts or projections, which represent only one possible outcome. Furthermore, such opinions, forecasts or projections are subject to certain risks, uncertainties and assumptions that have not been verified, and future actual results or events could differ materially. The value of, or income from, any investments referred to in this material may fluctuate and/or be affected by changes in exchange rates. All pricing is indicative as of the close of market for the securities discussed, unless otherwise stated. Past performance is not indicative of future results. Accordingly, investors may receive back less than originally invested. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients. This material may include views on structured securities, options, futures and other derivatives. These are complex instruments, may involve a high degree of risk and may be appropriate investments only for sophisticated investors who are capable of understanding and assuming the risks involved. The recipients of this material must make their own independent decisions regarding any securities or financial instruments mentioned herein and should seek advice from such independent financial, legal, tax or other adviser as they deem necessary. J.P. Morgan may trade as a principal on the basis of the Research Analysts' views and research, and it may also engage in transactions for its own account or for its clients' accounts in a manner inconsistent with the views taken in this material, and J.P. Morgan is under no obligation to ensure that such other communication is brought to the attention of any recipient of this material. Others within J.P. Morgan, including Strategists, Sales staff and other Research Analysts, may take views that are inconsistent with those taken in this material. Employees of J.P. Morgan not involved in the preparation of this material may have investments in the securities (or derivatives of such securities) mentioned in this material and may trade them in ways different from those discussed in this material. This material is not an advertisement for or marketing of any issuer, its products or services, or its securities in any jurisdiction.

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

subject to electronic monitoring: <https://www.jpmorgan.com/disclosures/email>

MSCI: Certain information herein (“Information”) is reproduced by permission of MSCI Inc., its affiliates and information providers (“MSCI”) ©2024. No reproduction or dissemination of the Information is permitted without an appropriate license. MSCI MAKES NO EXPRESS OR IMPLIED WARRANTIES (INCLUDING MERCHANTABILITY OR FITNESS) AS TO THE INFORMATION AND DISCLAIMS ALL LIABILITY TO THE EXTENT PERMITTED BY LAW. No Information constitutes investment advice, except for any applicable Information from MSCI ESG Research. Subject also to [msci.com/disclaimer](https://www.msci.com/disclaimer)

"Other Disclosures" last revised February 03, 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 25 Feb 2024 11:30 PM GMT

Disseminated 26 Feb 2024 03:00 AM GMT