

# Back to school, stick to history

**MARKETS 360<sup>TM</sup>**  
STRATEGY & ECONOMICS

05 September 2024

European Equity & Derivatives Strategy

*Please refer to important information  
at the end of this report*



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# European equities: Back to school, stick to history

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## KEY MESSAGES

**Seasonality woes:** Election years have historically shown a pattern, especially in September, of favouring owning volatility and maintaining a defensive stance until election day.

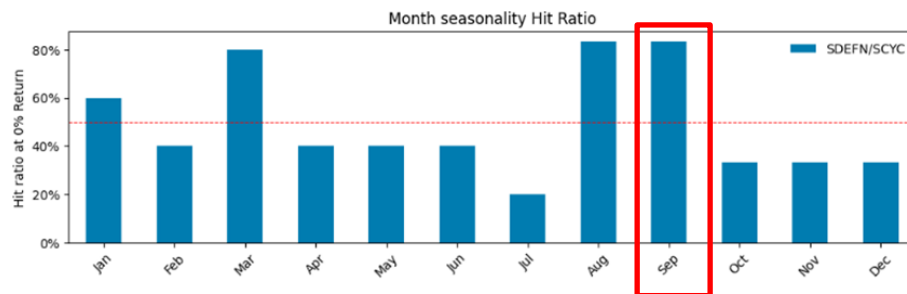
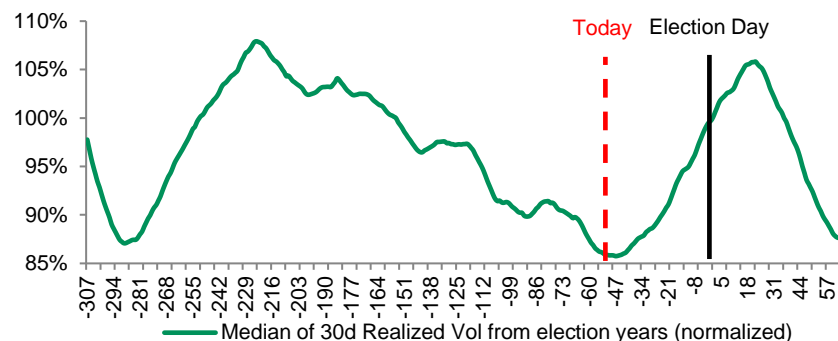
**Not enough momentum:** The base case for a soft landing remains, and a cyclical recovery in Europe is still expected, albeit delayed. However, short-term factors are not compelling enough to defy seasonal odds.

**What matters remains the US:** We are cognizant that the main drivers of volatility or returns are the outcome of the US elections and the strength of the labour market.

**Volatility markets flashing warning signs:** Vol parameters are pricing in more downside risk than the current spot price. Short term skew has been the outlier, with investors being cautious on selling downside vol into year end. History shows it is better to own optionality unhedged into US elections.

**Yields supportive:** One positive event of the summer is that long-term yields have significantly decreased, offering support by providing corporates with cheaper finance and improving the discount factor.

### Seasonality favours owning volatility and staying defensive until Election Day



Sources: Bloomberg, BNP Paribas.



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# 01 Introduction



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# The impact of unfavourable data on the market

**The balance of risk has shifted:** On returning from summer vacation, one can see that despite the balance of economic risks shifting towards a slowing economy over the past month (from “No” to “Hard” Landing), the consensus base case scenario of a “Soft” landing remains the same. The cyclical recovery in Europe, though delayed, is still expected to occur due to rising real incomes and looser credit conditions ([slide 23](#)). However, we don’t expect this to materialise in the next month.

**Trading the seasonality:** On a more tactical view, the month of September, and particularly during election years, has historically exhibited a seasonal pattern that favours owning volatility and maintaining a defensive stance until election day ([slide 13](#)). We still don’t see enough compelling arguments (read *momentum*) to go against the odds and shift from our defensive tilt (which has worked well over the past four months since we switched out of cyclicals):

- Growth trend is decelerating, and we have still to see an inflection point in manufacturing industries. Recent earnings momentum is pointing in the same direction
- Inflation trend is on track, but risk remains skewed to the upside
- “AI” trade seems to fatigue
- Labour market is “normalising” but the trend has yet to stabilise
- Sentiment remains fragile, as last month’s recession scare and market correction show

**What matters most:** While European equity markets have returned to range trading, fluctuating between sluggish short-term fundamentals and appealing technicals, it is worth reiterating that the main driver of volatility or returns over the short term will be the outcome of the US elections and the strength of the labour market. Friday’s NFP print will be important.

**US elections:** Although we do not speculate on the outcome of the US presidential elections, the result is expected to have a varying impact on European equities. European (and US) vol tends to rise the month leading into US elections with markets that usually trade risk-off going into US elections. This favours looking at owning some volatility. The last two elections (2016/2020) suggest that at the index level, owning optionality after the US elections is better than going long vol outright ([slide 19](#)).

**Back to calm sea, well almost:** Whilst vol has seen an extremely fast normalisation ([slide 16](#)), SX5E and more especially SX7E skews remain elevated on short-term maturities versus its early July levels as short-term downside vol is struggling to normalise fully ([slide 20](#)). With concerns around cooling data plus US elections approaching, investors are worried about being short year-end downside vol ([slide 18](#)).

**Summer yields:** One positive development over the summer has been the compression of risk metrics in the markets and the significant decrease in long-term yields. This should offer support as it gives corporates access to cheaper finance and improves the discount factor, offering a better valuation ([slide 12](#)).

**Rates playbook:** Historical analysis of rates and central bank rate cuts reveals two points: (1) The reasons for cutting rates matter more to market outcomes than the magnitude of the cuts themselves; (2) In a soft-landing scenario, History shows that fewer rate cuts typically occur than what is currently priced in by the market. On that one single factor analysis, one could conclude that either risk of recession should be higher or that fewer cuts should be priced in. We do note however that neutral rate are lower this time around ([slide 37](#)).

**Positioning - Not back to the highs:** Although our global positioning indicators have made significant strides since last month drawdown, they are yet to reach peaks. This suggests that any potential sell-off may be less severe, as the overbought condition is not as present ([slide 30](#)). Notably, hedge funds have begun to increase their shorts in Europe, particularly on cyclicals - Travel & Leisure and Basic Resources are currently the most shorted sectors ([slide 33](#)).

**Keeping a defensive tilt:** We make some tactical adjustments to our portfolio, swapping out of Pharma, which has had a stellar performance, and into consumer staples (beers). We’re maintain our preference for Utilities over Telcos. Meanwhile, we’ll continue to capitalize on quality stocks that derate, while acknowledging the volatility that lies ahead. Luxuries is being kept as a funding short.

## 02 Equities



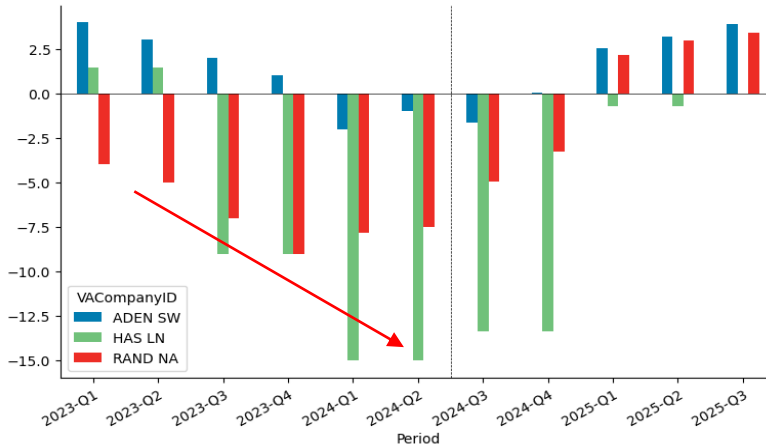
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# Key graphs

### Staffing companies continue to price out the recovery

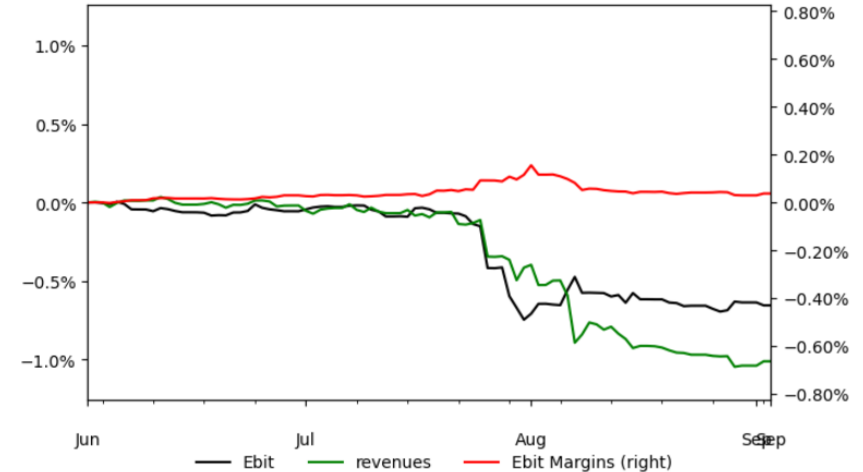


Sources: Visible Alpha, BNP Paribas

\* 6 months ago recovery was priced in for Q3-2024

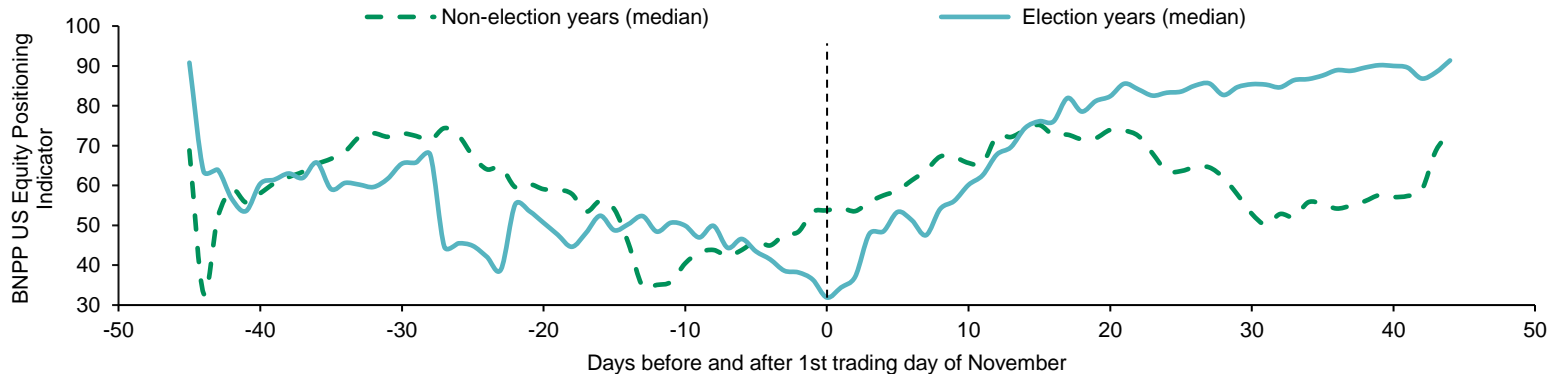
### FY25 earnings guidance has been revised lower, driven by revenues

SXXP 2025-revisions



Sources: Visible Alpha, BNP Paribas

### Typically, de-risking into an election and adding back after



Sources: Bloomberg, Eurex, S3, EPFR, BNP Paribas. Past performance is not indicative of future performance.



# Sectors: Quant top-down views

Index	Sector	Positioning Score (short interest, 2y %ile)*	Model	Consensus	%diff of model vs cons.	Earnings Score (based on our BNPP model)*	Technical Score (based on RSI & % above 20d MA)*	Final Score*	Sector EPS Models Macro drivers		
SXMP	Media	92.7%	26.3	25.7	2.2%	82.3%	22.7%	70.0%	EUR Trade weighted	US Inflation 2y	EURGBP
SXRP	Retail	60.6%	31.2	29.9	4.6%	94.1%	29.5%	69.6%	EURGBP	CESI USD	UK Inflation 2y
SX7E	Banks	27.0%	21.9	20.7	5.7%	100.0%	33.4%	65.1%	German Real yield 10y	EU 10Y-3m yield spread	EZ New Order PMIs
SXNP	Industrial Good & Services	50.3%	49.2	49.7	-0.9%	70.5%	25.0%	54.1%	Global New Order PMI	US Inflation 2y	US Inflation 10y
SX6P	Utilities	27.7%	32.7	31.7	2.9%	88.2%	9.9%	53.5%	Real yield 10y	Industrial metals	German Real yield 2y
SXQP	Consumer Prod & Services	42.6%	60.2	61.3	-1.6%	58.8%	15.3%	43.9%	China growth index	EZ Consumer confidence	EZ Employment PMIs
SXAP	Auto & Parts	52.8%	104.0	107.4	-3.2%	47.0%	26.9%	43.4%	EU Inflation 10y	CESI G10	EZ Manu PMIs
SXKP	Telecom	87.8%	16.1	16.7	-3.3%	41.1%	1.8%	42.9%	EUR Trade weighted	US New Order PMIs	US 2y yield
SXPP	Basic Resources	95.6%	46.2	52.3	-11.8%	5.8%	58.7%	41.5%	Global New Order PMI	US Manu PMI	US 2y inflation
SXOP	Construction & Materials	0.6%	49.9	49.6	0.6%	76.4%	11.4%	41.2%	EZ Loans to corporates	Real yield 2y	Global inflation 2y
SXIP	Insurance	1.9%	37.1	37.5	-1.2%	64.7%	5.9%	34.3%	Global PMI Empl	EZ New Order PMIs	UK Employment
SX86P	Real Estate	0.4%	8.5	8.8	-2.6%	52.9%	15.7%	30.5%	EZ Consumer credit	EZ Consumer confidence	US Manu PMI
SX8P	Technology	33.1%	36.4	38.4	-5.2%	17.6%	40.6%	27.2%	EZ systematic stress ind	China Leading index	Global Manu PMIs
SXEP	Oil & Gas	5.0%	37.5	41.2	-9.1%	11.7%	62.7%	22.8%	Oil	US 10y yield	EURUSD
SX4P	Chemicals	10.9%	68.9	71.7	-3.9%	35.2%	9.7%	22.7%	Industrial metals	US Empl PMI	HICP Forecast Survey
SX3P	Food & Beverage	27.7%	38.6	40.6	-4.8%	23.5%	9.7%	21.1%	EURCHF	EURUSD	US Inflation 5y5y
SXDP	HealthCare	0.2%	68.1	71.1	-4.3%	29.4%	6.1%	16.3%	EURCHF	German Real yield 10y	US 2y yield

\* High score denotes bullish signal and low score a bearish signal

\*\* Final score = 50% earnings score, 25% positioning score and 25% technical score

Source: BNP Paribas





# Industry fundamental revisions

## Industry revisions and market performance over the last 3 months

	FY-24 guidance revision			Perf perf vs SXXP
	Ebit Margins	Revenues	Ebit	
Airlines	-192.6	-1.5%	-14.1%	-5.7%
Staffing	-42.6	-2.3%	-10.8%	-11.8%
Luxuries Clothing	-99.3	-2.8%	-6.7%	-9.4%
Aerospace & Defence	-38.5	-1.3%	-5.9%	-8.3%
Oil and Gas	-60.4	-1.8%	-4.6%	-6.3%
Diversified Chemicals	-11.5	-2.5%	-4.6%	1.0%
Wines & Spirits	-71.0	-2.2%	-4.4%	-10.3%
Semis	-19.0	-1.8%	-3.6%	-15.5%
Autos	-6.2	-0.9%	-3.3%	-8.5%
Basic Ressources	-70.0	2.1%	-3.1%	-13.9%
Telcos	-71.8	-0.2%	-2.3%	12.2%
Beverages beers	8.0	-2.2%	-1.8%	-4.4%
Machinery	-15.1	-0.8%	-1.5%	-4.5%
Electrical equipment	0.4	-0.6%	-1.3%	-1.7%
Media	6.6	-0.9%	-1.2%	-0.5%
Staples food	-3.3	-1.0%	-1.1%	-0.1%
SXXP	8.2	-0.7%	-0.6%	-
Heavy materials	33.2	-2.2%	-0.6%	4.2%
Other techs	26.1	-1.3%	-0.5%	6.3%
Residential Real estate	37.8	-1.0%	-0.4%	11.5%
Apparel	5.0	0.0%	-0.1%	4.5%
Health Care	-12.6	0.3%	0.7%	9.6%
Light materials	-1.0	-0.0%	1.0%	1.0%
Staples household	63.9	-0.6%	2.6%	-0.6%
Consumer chemicals	39.3	0.3%	3.0%	15.0%
Banks	112.0	0.9%	4.1%	-2.9%
Biotech	257.6	2.6%	11.4%	18.6%

Market volatility has increased recently, with the underlying fundamentals indicating investors should be cautious.

**Tactical view:** We now see the balances of probabilities better skewed towards a more defensive tilt before turning positive on Q4 while we wait to see the first signs of a cyclical recovery.

### Signs of a slowing cyclical recovery:

- The ISM print this week, showed that both production and new orders continue to fall from the prior month. This, along with the recent weakness in US data and negative company guidance, confirms the worries we had before entering the summer period (see: [European Equities: The road ahead](#), dated 4 July).
- Following the last earning season, (see: [Q2 2024 earnings season recap](#), dated 8 August) many companies' number have been revised down which has been one of the main drivers of performance. However, recent market movements have presented some short-term opportunities that investors could profit from.
  - Long ACA FP 15 Nov24 Calls for 1.6% (25d) (ref: 13.9):** French banks have lagged the broader Banks outperformance this year given the political uncertainty. Despite solid earnings from the sector, the sector has derated due to cyclical recovery worries and lower rates. We enter this trade given the lower rate-sensitive nature of ACA combined with the potential for a positive rebound on French banks given the **less leftish chosen PM**. Banks remain our preferred cyclical sector to own. Further this option captures the possible volatility of the US election.
  - Long ABI BB 60/65 CS Dec24 for 1.5% (20d) (ref: 55.8):** We take profit on our profitable healthcare and switch to beers as our favourite Defensive pick. Despite the week H1season not being great given bad weather on May in EU, US, China and Brazil, we expect the negative momentum to turn around in September after the good weather in the last months and its defensive nature in a moment of market uncertainty.
  - Long HOLN SW 76/68 Dec 24 PS for 1.8% (20d) (ref: 80) (5.5x max payout):** Despite liking the rate sensitive nature of the sector in an environment of lower rates, we believe this could take some time to feed in. Further, US infrastructure slowdown, the miss in ISM manufacturing, and the negative revisions in heavy materials vs light materials, we think turning tactically short heavy-side construction makes sense.



# Industry fundamental momentum: Comps getting better

	Margins		Organic growth		KPI Score		PE	
	Value	YoY	YoY	Next-Q Score	12M forward change	Value	1Y Percentiles	5Y Percentiles
Universe	22.6%	0.4	3.8%	3.1	0.4	13.2	54%	51%
Aerospace & defence	11.0%	1.9	15.4%	2.8	0.3	19.6	37%	67%
Machinery	17.5%	-0.1	2.9%	3.4	0.8	23.4	53%	50%
Electrical equipment	15.9%	0.8	4.9%	4.5	-0.4	19.2	67%	64%
Wines & spirits	30.3%	-0.7	1.0%	2.4	1.0	19.9	31%	7%
Beverages beers	23.0%	0.9	4.8%	3.3	0.3	16.3	22%	13%
Staples food	16.8%	0.1	4.2%	2.5	0.6	18.5	36%	7%
Staples household	17.8%	0.7	4.8%	3.5	0.2	21.8	38%	21%
Apparel	17.2%	0.9	8.1%	4.4	-1.0	22.2	76%	52%
Luxury clothing	20.0%	-3.8	7.2%	1.8	1.6	25.0	49%	31%
Consumer chemicals	13.8%	2.2	7.4%	4.9	-1.1	30.4	93%	56%
Diversified Chemicals	13.9%	1.0	3.2%	3.7	0.3	18.8	63%	71%
Airlines	23.1%	-1.6	5.6%	3.3	0.4	6.1	53%	29%
Media	26.1%	0.9	3.8%	3.5	-0.2	20.5	47%	83%
Health care	36.5%	0.7	13.7%	3.0	0.7	17.8	98%	100%
Renewables	2.7%	4.7	17.2%	3.0	0.8	27.0	8%	25%
Banks	-	-	1.6%	3.7	-1.5	6.8	57%	39%
Other techs	19.9%	1.1	4.1%	3.5	0.6	27.6	63%	81%
Semis	28.2%	-2.8	4.9%	2.8	1.3	25.6	34%	42%
Heavy materials	21.7%	0.6	2.8%	2.7	0.4	11.1	66%	82%
Light materials	13.8%	0.4	0.0%	2.9	0.9	16.6	70%	57%
Autos	13.8%	-1.1	-0.9%	3.6	-0.3	5.7	15%	19%
Telcos	18.2%	3.7	0.3%	1.2	1.6	12.2	99%	57%
Oil and gas	14.1%	-2.3	1.7%	2.6	0.3	7.4	54%	43%
Basic Resources	31.3%	0.5	-2.0%	3.0	0.5	9.5	42%	66%
Staffing	-	-	-4.9%	2.0	2.1	11.7	34%	36%

**Brewers** is trading at low valuations with good growth expected ahead and its defensive

**Luxury:** KPI score getting worse amid lower revisions → Still place for further derating

**Diversified Chems:** High valuations despite weak earnings momentum and concerns about Chinese demand

**Healthcare:** We close our long amid stretch valuations → we continue to like the sector but wait for further catalysts.

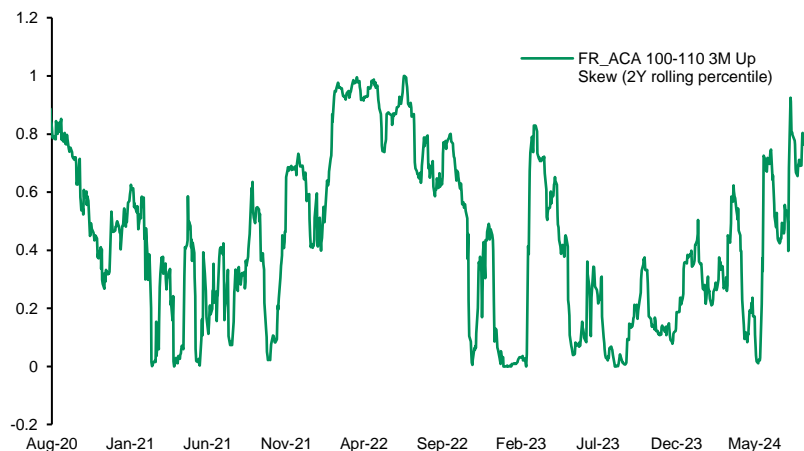
**Autos:** Trading at cheap valuations and could outperform a similar industry like diversified chems.

**Telcos:** is trading at high valuations despite negative revisions. Our short play did not work out given their rate sensitiveness.



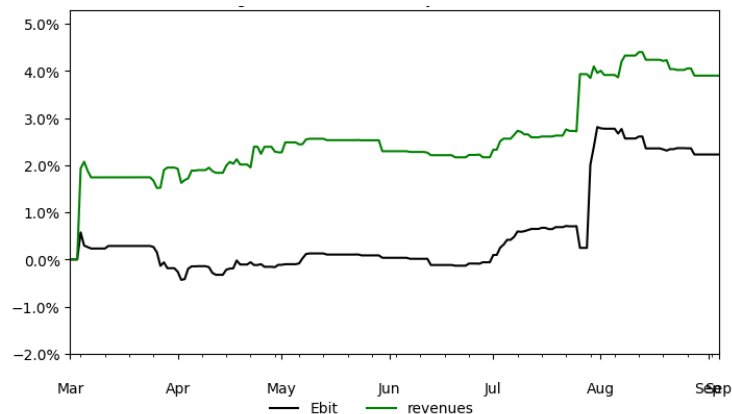
# Industry fundamental revisions

ACA FP 110 Calls trading at attractive levels compared to history

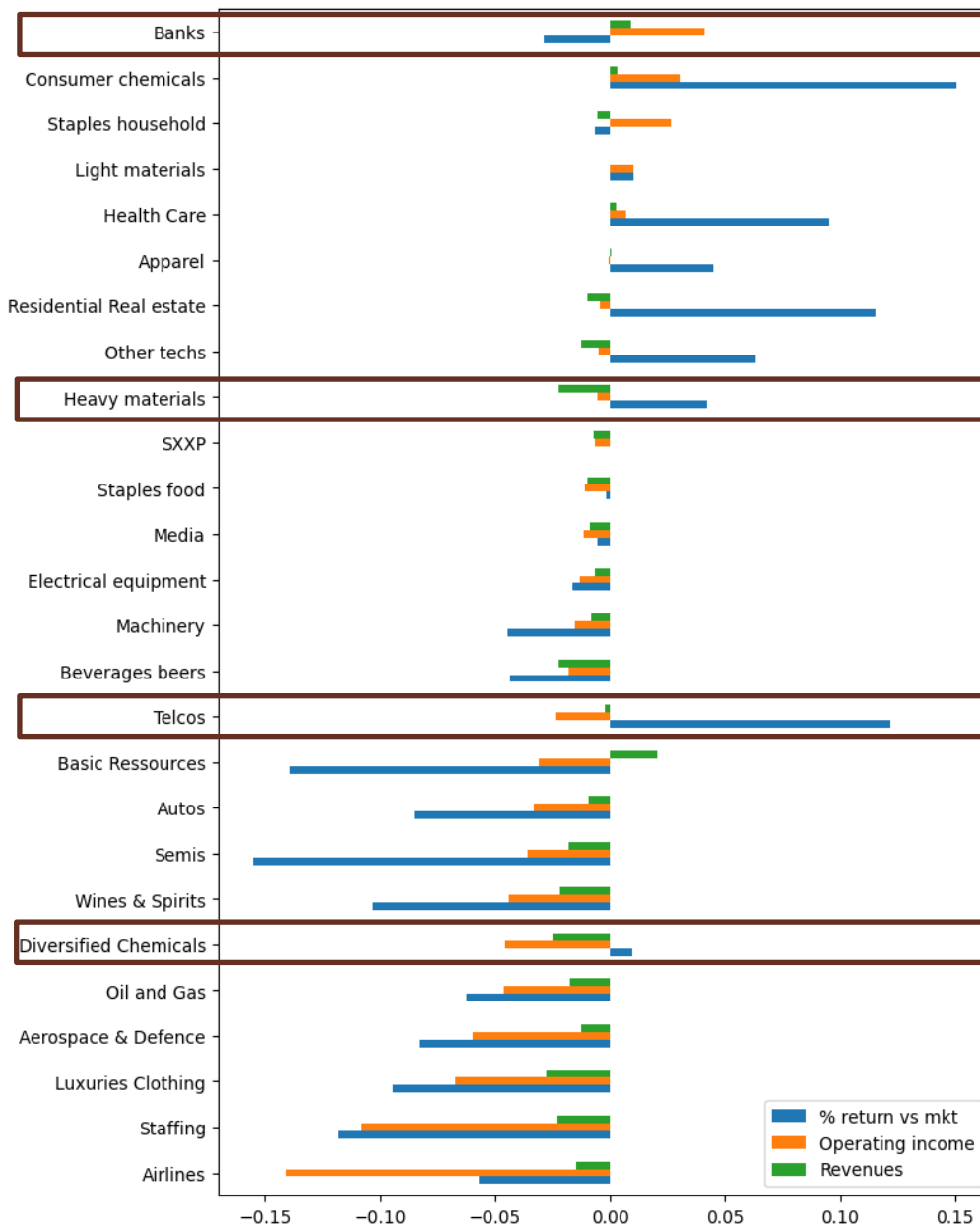


Sources: BNP Paribas

Light – Heavy Chemicals 2024 revisions since beginning of march (10% revenue difference)



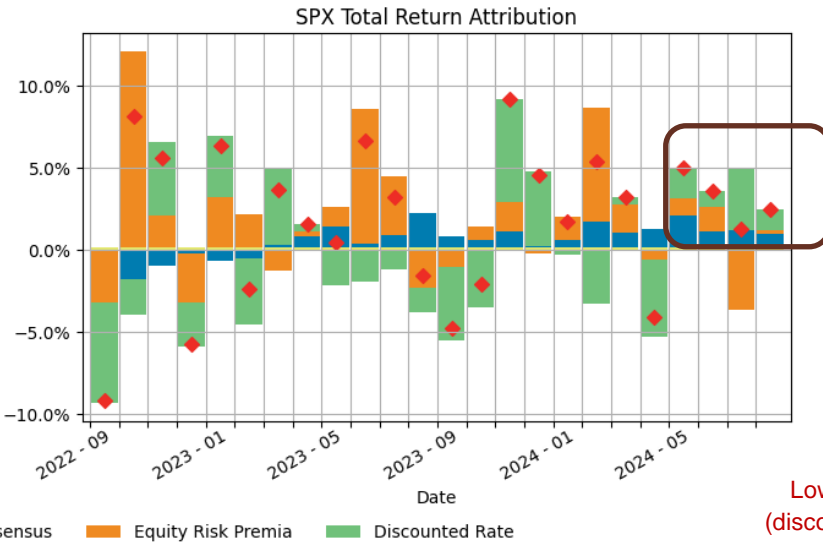
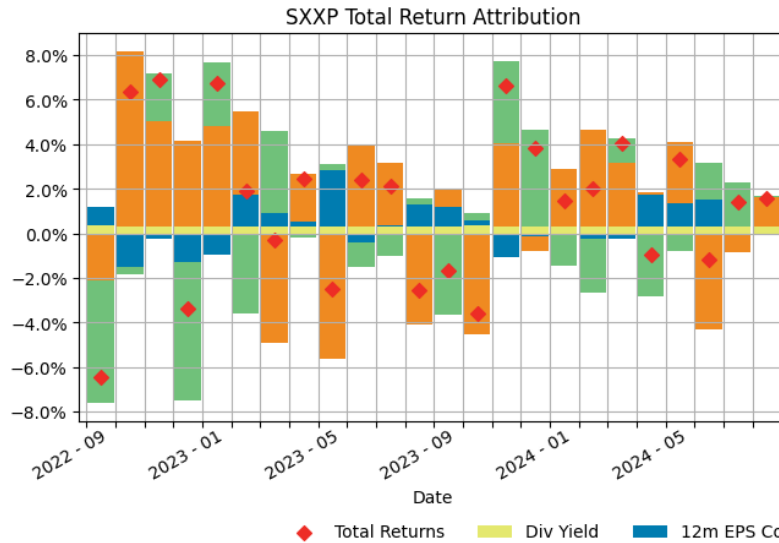
Sources: Visible Alpha, BNP Paribas



Sources: Visible Alpha, BNP Paribas

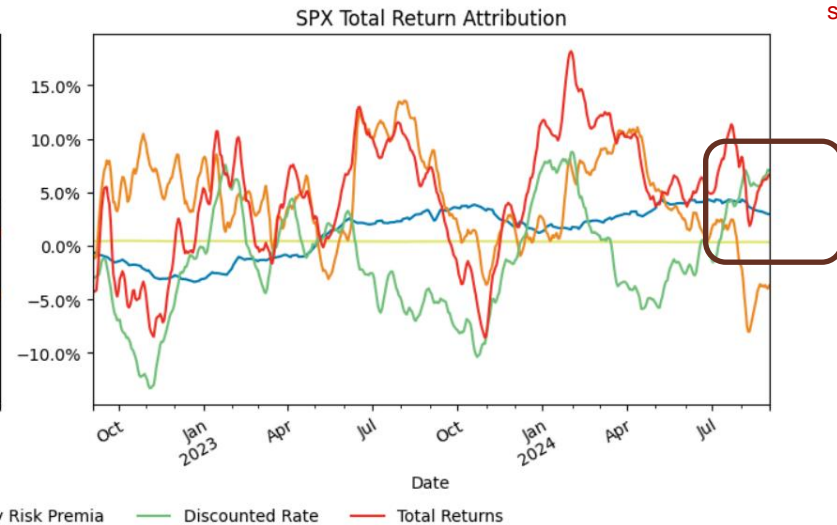
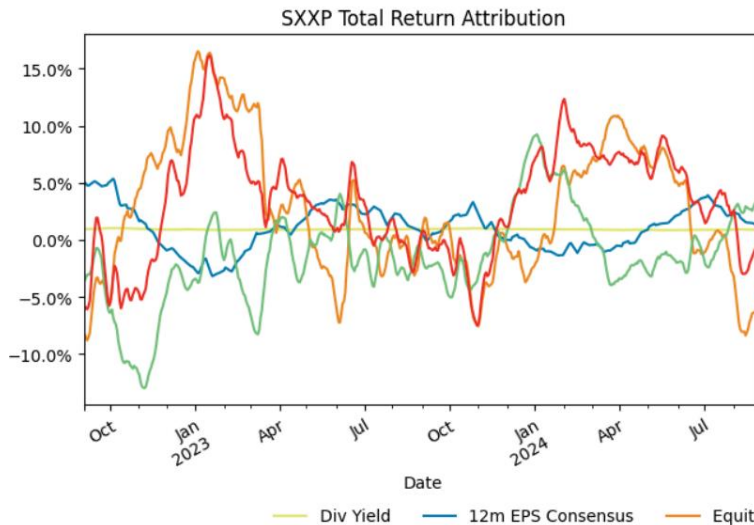
Notes: OI = operating income, EBIT

# Total return attribution



Lower yields  
(discount factors)  
have been  
supportive to equity  
markets over the  
summer

Sources: Datastream, BNP Paribas. Past performance is not indicative of future performance.

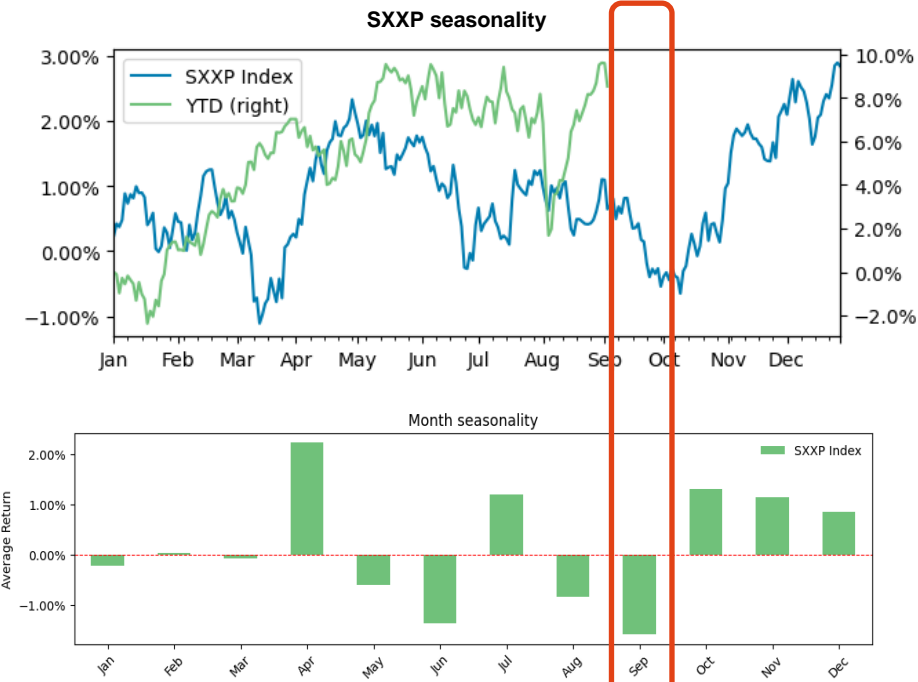


Sources: Datastream, BNP Paribas. Past performance is not indicative of future performance.

\* 3 Month rolling

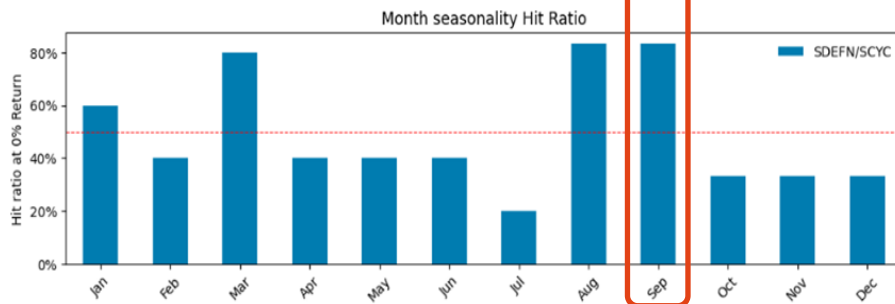


# Seasonality: Defensive stance for September

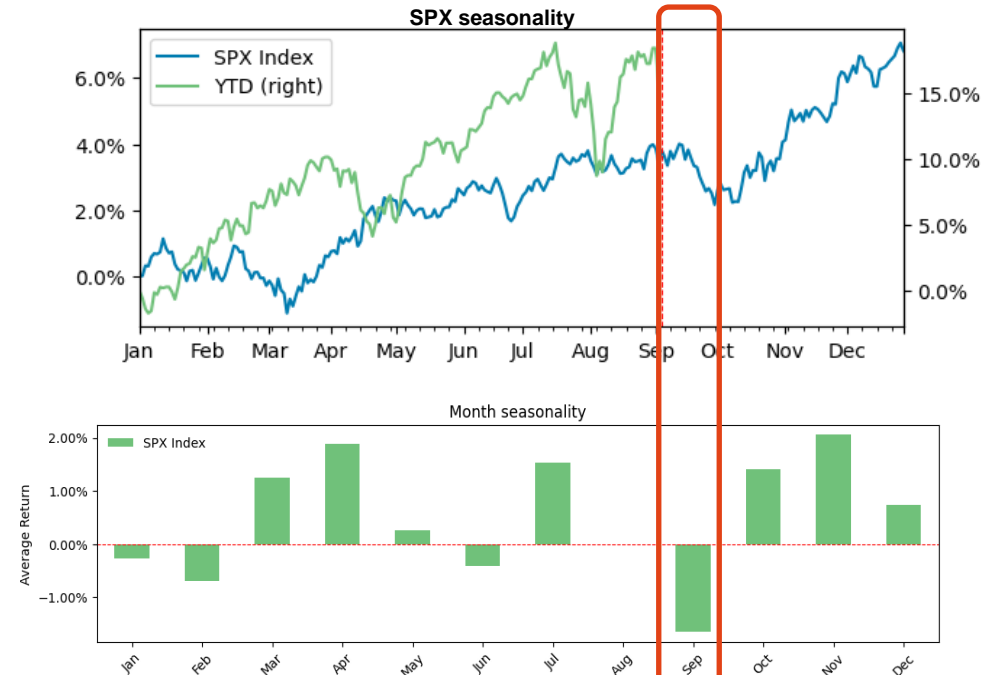


Sources: BNP Paribas. Past performance is not indicative of future performance.

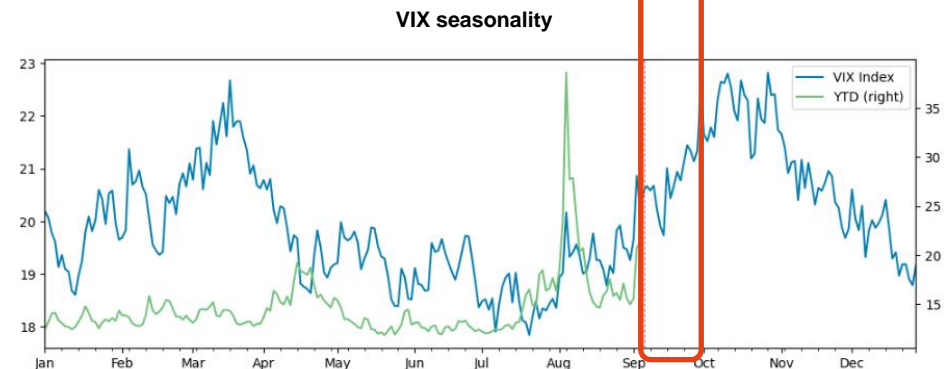
## Seasonality favours defensives over cyclicals



Sources: BNP Paribas. Past performance is not indicative of future performance.



Sources: BNP Paribas. Past performance is not indicative of future performance.

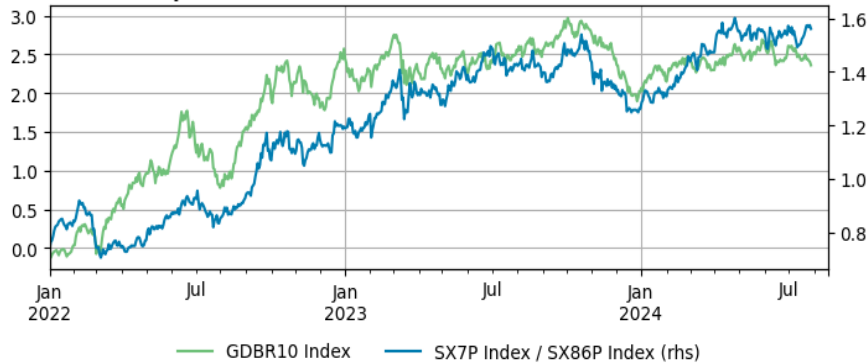


Sources: BNP Paribas. Past performance is not indicative of future performance.



# Micro to macro: What is the equity market discounting?

German 10y vs Banks / Real estate – Lower yields to trigger the rotation



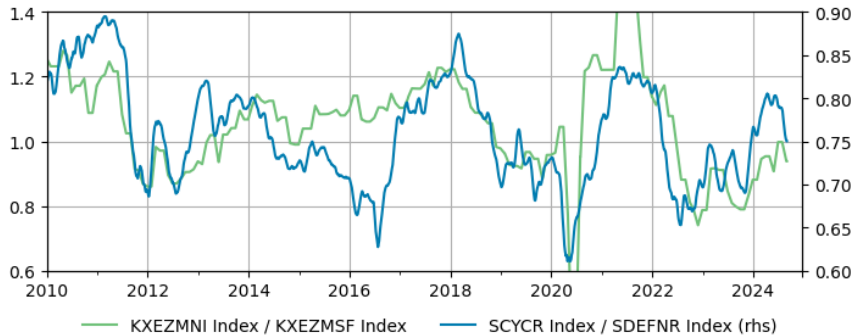
Sources: BNP Paribas

CPI vs retail/oil – sticky inflation?



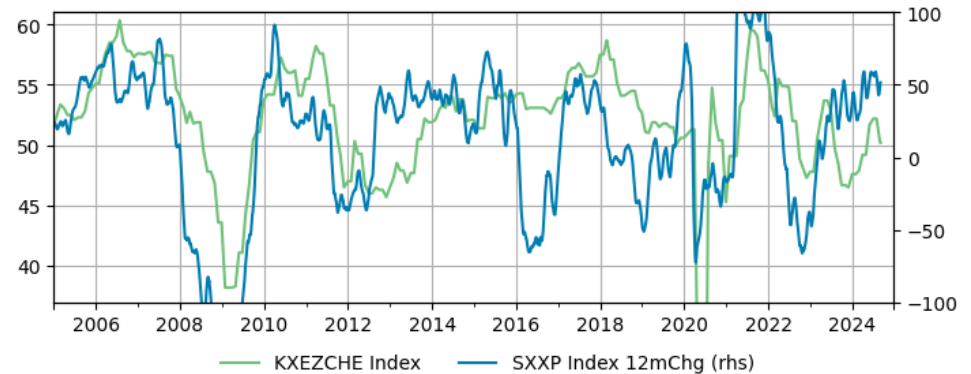
Sources: BNP Paribas

Oil vs SXEP – In line



Sources: BNP Paribas

Lower PMIs could drag down equities



Sources: BNP Paribas

## 03 Volatility background



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# Parameters: Some signs of stress

	Levels					1y %-ile					1y z-score				
	Vol	Carry	Real correl	Up skew	Down skew	Vol	Carry	Real correl	Up skew	Down skew	Vol	Carry	Real correl	Up skew	Down skew
RTY	23%	1%	39%	-6%	13%	97%	58%	94%	17%	74%	1.9	0.0	1.4	-0.9	0.4
NDX	22%	1%	37%	-11%	20%	96%	79%	95%	5%	98%	1.9	0.7	1.6	-1.8	1.8
SMI	13%	0%	41%	-6%	25%	95%	66%	97%	5%	95%	2.2	0.0	2.5	-2.0	2.2
SPX	16%	0%	24%	-11%	30%	92%	75%	88%	7%	98%	1.7	0.3	1.4	-1.9	2.2
SXXP	13%	-4%	27%	-8%	28%	88%	16%	100%	9%	99%	1.3	-0.9	1.9	-1.6	2.4
SX5E	16%	-3%	40%	-9%	27%	87%	38%	99%	12%	100%	1.2	-0.5	1.7	-1.3	3.7
DAX	15%	-5%	34%	-8%	28%	85%	17%	100%	12%	100%	1.0	-1.0	2.3	-1.2	3.9
SX7E	22%	-7%	68%	-10%	21%	84%	22%	97%	3%	100%	1.1	-0.8	2.4	-1.9	3.4
UKX	12%	-2%	24%	-3%	26%	82%	29%	81%	18%	100%	0.7	-0.7	1.0	-0.9	2.8
CAC	15%	-4%	40%	-8%	27%	81%	25%	91%	23%	100%	0.9	-0.8	1.6	-0.8	3.4
HSCEI	21%	-5%	35%	2%	6%	5%	3%	3%	50%	80%	-1.8	-1.4	-1.6	0.1	0.9

Vol: 3m atm forward vol

Carry: RV 21-days - IV 3m

Realised correlation: 63 business days

Down skew: (25d put - 50d put) / 50d vol ; Up skew: (25d call - 50d call) / 50d vol

Sources: BNP Paribas

**Fast and furious:** Where has the early August spike gone? It has almost completely vanished. The pace of the fading has been unprecedented. The speed of the recovery highlights that the appetite to capitalize on pockets of vol is still strong. This week is showing some revival of vol with continuing fear of macro slowdown.

**Spot vol beta is back:** Since the summer of 2023, vol reaction to spot moves had been pretty muted in Europe and in the US. The 2024 summer sell-off episode was a clear cut from this low vol reactivity world. Spot vol beta is back, as shown in the sell-off this week too.

**Back to a calm sea, almost:** Whilst vol has seen an extreme normalisation, SX5E skew remains elevated on short-term maturities versus its early July levels as short-term downside vol is struggling to fully normalise. With worries around the cooling of data plus the US presidential election approaching, investors are concerned about being short end-of-year downside vol.

**Seasonality:** Seasonality is supportive of higher vol levels as September is the month where vol rises the most. Over 50% of the time since 2000, V2X has risen by 2pt over the month.

**US presidential election approaching:** This year is also a US presidential election year. US and European vols tend to rise over the month leading into a US election with markets typically trading risk-off going into the event. This favours looking at owning some volatility.

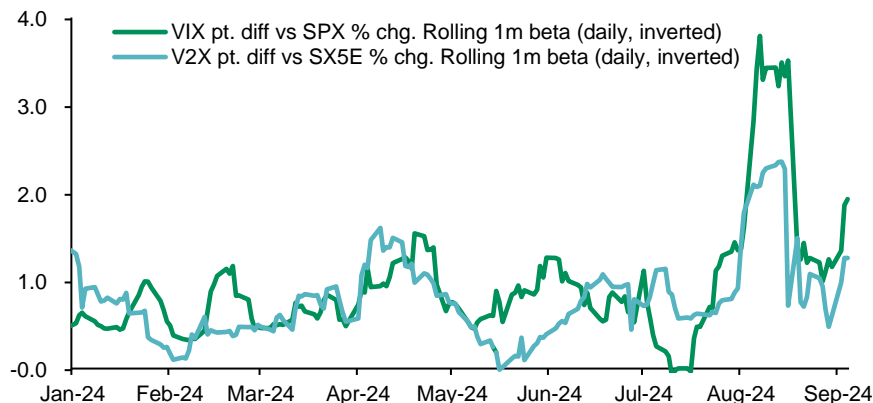
**100 years of crashes :** What happens if we enter a recession? In our bear case of a recession, our study shows that in a recession, you want to position for (1) a deeper spot drawdown (median correction of 36), (2) but less vol reactivity (median VIX peak at 44). For more, see [100 years of crashes – Recession watch](#), dated 7 August.

**SX7E vol:** Skew is struggling to normalize, especially on the SX7E with 3m SX7E skew that continues to trade at 2 sigmas on 10y. This is where the most room remains for European parameters to normalize.



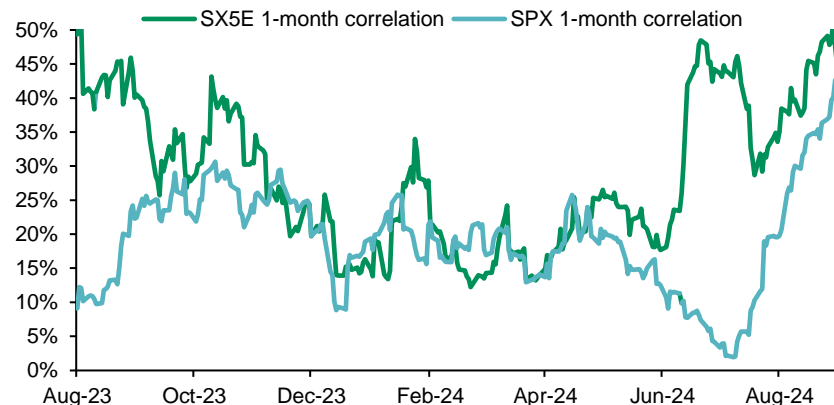
# Market catching its breath

VIX beta to SPX move has spike in early August, vol reactivity is back



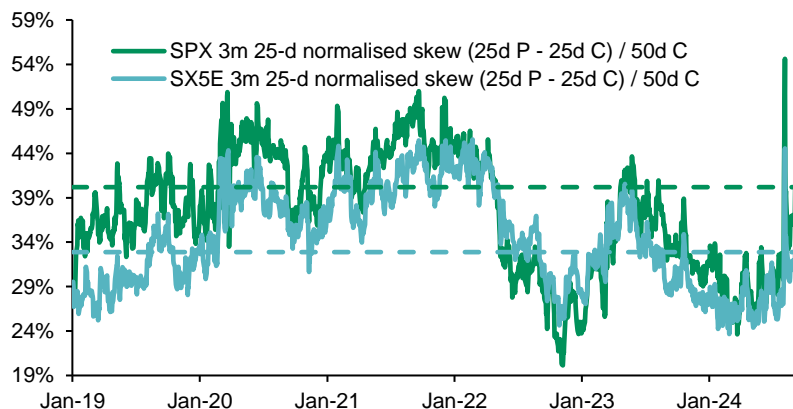
Sources: BNP Paribas

Another sign of stress: Realised correlation has picked up



Sources: BNP Paribas

Skew remains elevated versus YTD levels



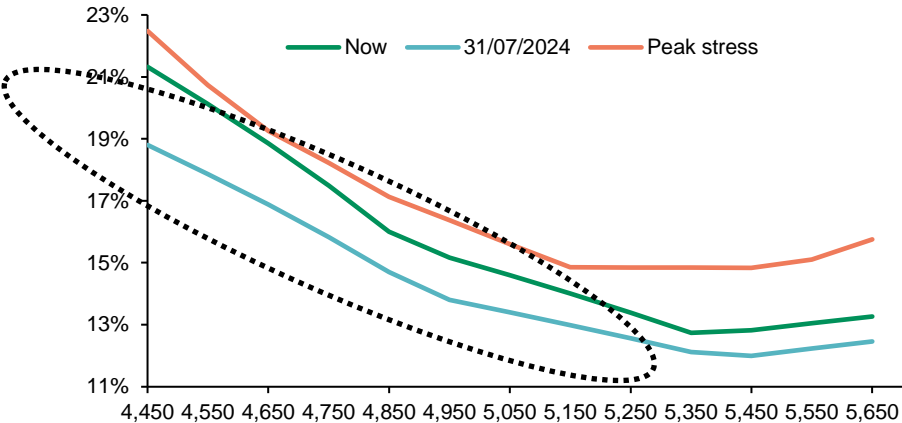
Sources: BNP Paribas

- **Spot vol beta** is normalising, but we have broken out of the environment of low vol reactivity. The vol moves seen on Tuesday are further proof.
- **Correlation** has picked up. Demand for dispersion trades following these better entry points will likely put pressure on index vol once sentiment improves.
- **Skew, the outlier:** Investors are cautious around selling downside vol on short end maturities at these levels. This is keeping skew supported.



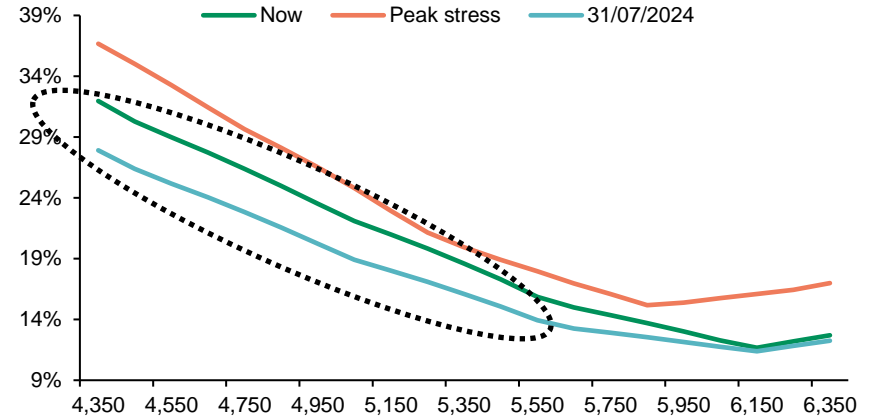
# Downside vol story

### Downside vols have yet to fully normalise in Europe ...



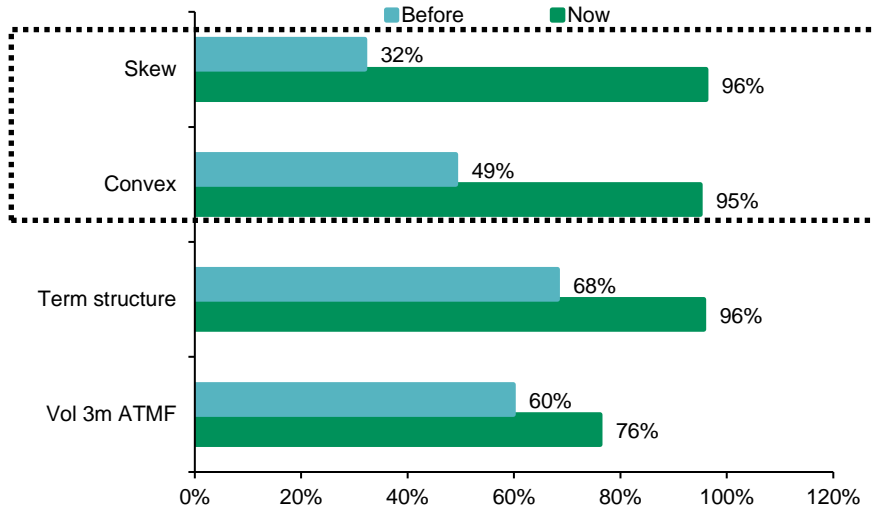
Sources: BNP Paribas

### ... and in the US too



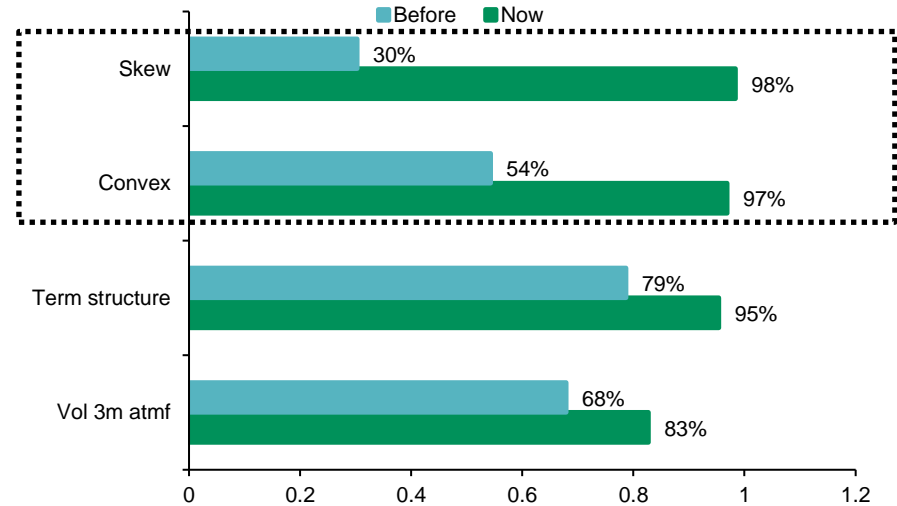
Sources: BNP Paribas

### Skew and convexity (downside vol) remain elevated in Europe ...



Sources: BNP Paribas

### ... and in the US (on a 10-year %-ile)



Sources: BNP Paribas

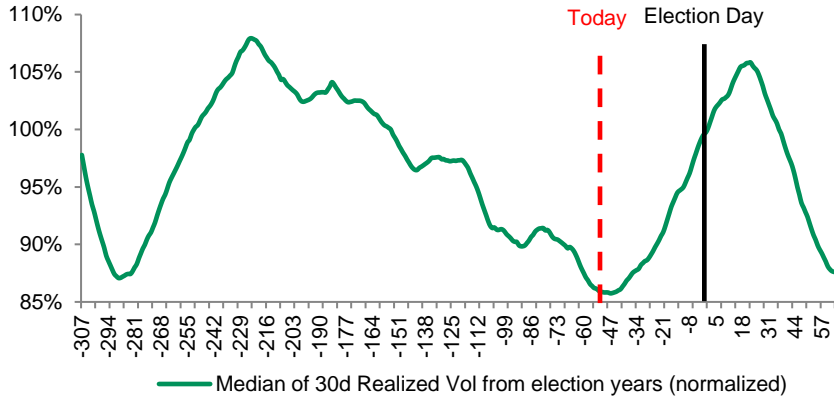




VOL

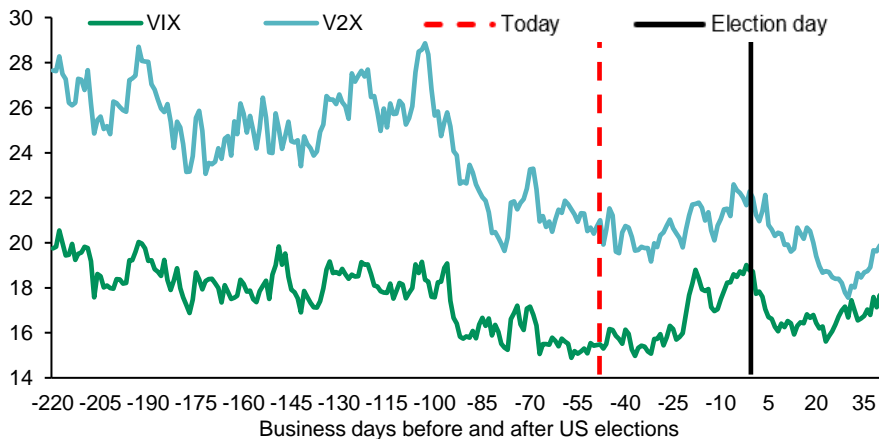
# US election approaching

US election year seasonal pattern: Rising volatility into the election, then fading



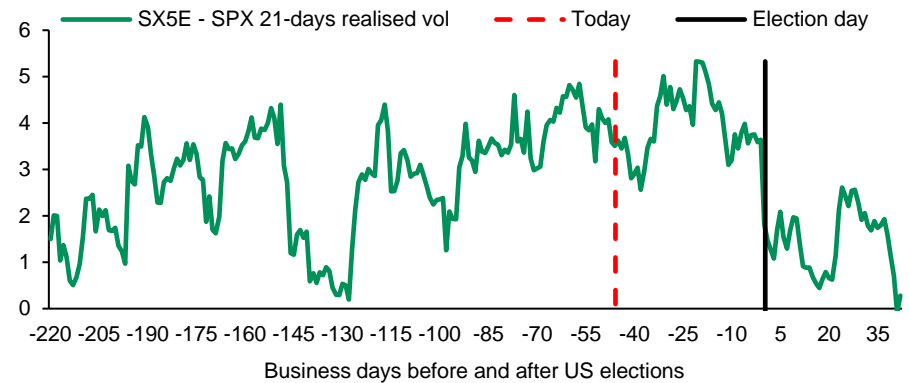
Sources: BNP Paribas

VIX and V2X since 2000 (ex-2008 and 2020 crisis): Same for the implied vol



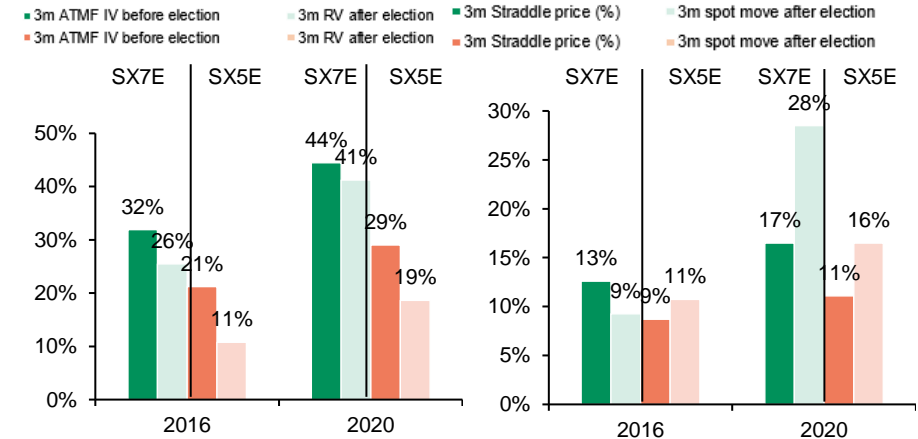
Sources: BNP Paribas

SX5E–SPX realised spread since 1988 (ex-2008 and 2020): It tends to compress



Sources: BNP Paribas

Hedging for elections: Better to be looking at owning optionality versus delta hedged position

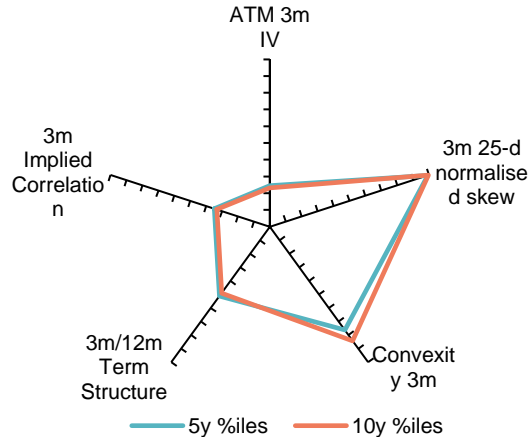


Sources: BNP Paribas

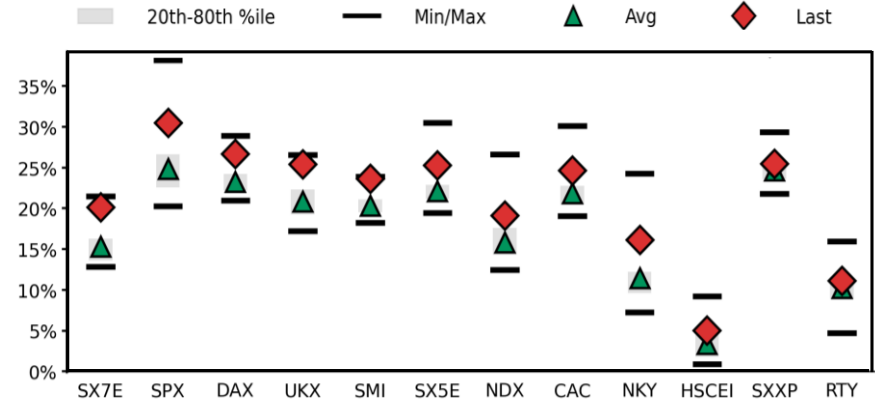


VOL

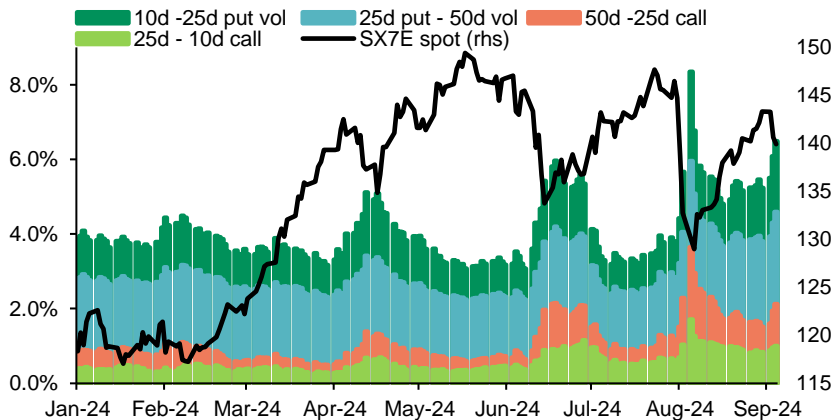
# SX7E: All about skew

**SX7E skew and convex still screen stretched**

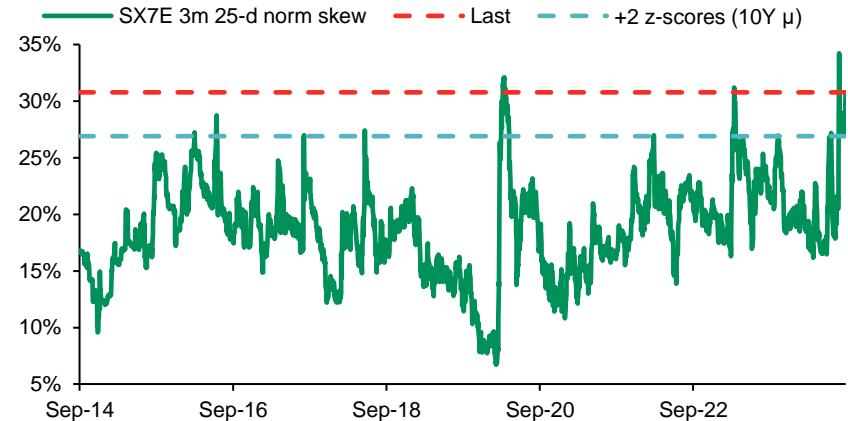
Sources: BNP Paribas

**SX7E skew is the richest versus its own history**

Sources: BNP Paribas

**SX7E downskew surged the most and remains quite bid**

Sources: BNP Paribas

**SX7E 3m 25-d normalized skew still trades at 2-sigma away from its 10-year average**

Sources: BNP Paribas

# Credit versus equity volatility

Credit spread cash is still attractive versus Equities vol

Index EU vs CDS

		Nominal	20dChg	40dChg	Correl
CDS	Equity				
CDS EUR XOVER VOL	EU_STOXX50E_VOL_3_100	0.52	-1.99	0.17	0.82
	EU_SX7E_VOL_3_100	0.46	-2.27	0.30	0.85
CDS EUR MAIN VOL	EU_STOXX50E_VOL_3_100	0.73	-2.32	-0.40	0.89
	EU_SX7E_VOL_3_100	0.78	-2.87	-0.21	0.92
CDS EUR XOVER VOL	VSTOXX	0.12	-2.50	-0.14	0.82
CDS EUR XOVER	EU_SX7E_VOL_3_100	-1.67	-0.42	-0.78	0.79
CDS EUR MAIN	EU_SX7E_VOL_3_100	-1.75	-0.68	-0.99	0.82
CDS EUR XOVER	EU_STOXX50E_VOL_3_100	-2.10	-0.29	-1.21	0.81
CDS EUR MAIN VOL	VSTOXX	0.20	-3.00	-1.01	0.89
CDS EUR MAIN	EU_STOXX50E_VOL_3_100	-2.22	-0.55	-1.41	0.84
CDS EUR XOVER	VSTOXX	-1.95	-0.80	-1.45	0.81
CDS EUR MAIN	VSTOXX	-2.06	-1.11	-1.66	0.84

Sources: BNP Paribas

Top/Bottom 6 Stock vs CDS

	Nominal	20dChg	40dChg	Correl
MDS				
NL_HEIA	3.85	2.66	3.03	0.77
FR_MC	2.56	1.87	2.06	0.58
GB_BP	1.28	1.65	2.67	0.73
FR_CA	0.01	1.86	1.98	0.62
FR_AI	1.10	1.26	1.23	0.62
GB_HSBA	0.47	1.14	1.68	0.65
SE_VOLVB	-1.43	-0.31	-0.43	0.50
FR_SGO	-1.11	-0.99	-0.14	0.69
IT_ENEL	-1.66	-1.09	0.34	0.65
SE_ELUXB	-1.58	-0.42	-0.81	0.31
FR_DG	-1.32	-1.76	-0.93	0.86
GB_BARC	-2.29	-1.47	-0.71	0.66

Sources: BNP Paribas

Best Corel Stock/CDS

	Nominal	20dChg	40dChg	Correl
MDS				
FR_DG	-1.32	-1.76	-0.93	0.86
FR_CS	-1.04	-0.11	0.30	0.80
IT_ENI	0.56	-0.37	0.74	0.78
NL_HEIA	3.85	2.66	3.03	0.77
FR_VIE	0.16	0.96	0.19	0.77
NL_INGA	-1.36	-0.40	0.86	0.74
GB_BP	1.28	1.65	2.67	0.73
ES_REP	-0.59	-0.64	0.86	0.71
CH_UBSG	-1.13	-0.19	1.04	0.70
GB_LLOY	-0.06	0.27	0.68	0.70
ES_IBE	-0.33	0.32	1.12	0.70
FR_SGO	-1.11	-0.99	-0.14	0.69

Sources: BNP Paribas

20dChg on EU\_STOXX50E - Correl = 0.89



Sources: BNP Paribas

Hedged CDS EU\_STOXX50E - Current ZS: -2.32 (zscore rhs)



Sources: BNP Paribas

# 04 Macro



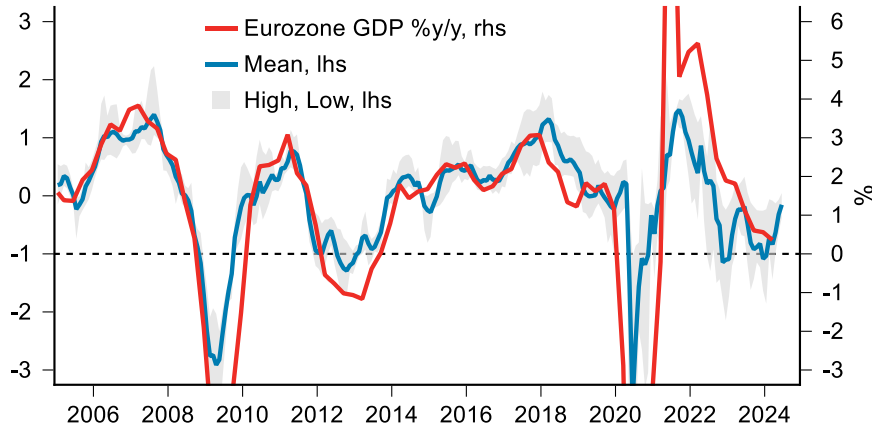
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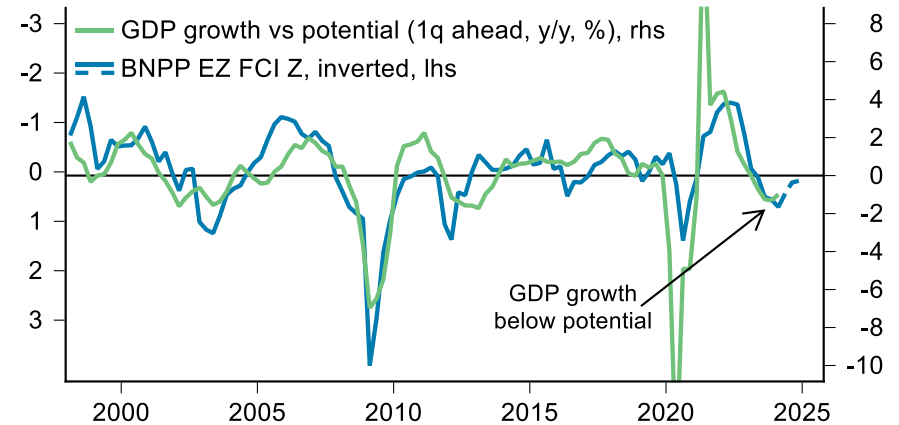
# European economic backdrop

Surveys suggest the eurozone economy has turned a corner



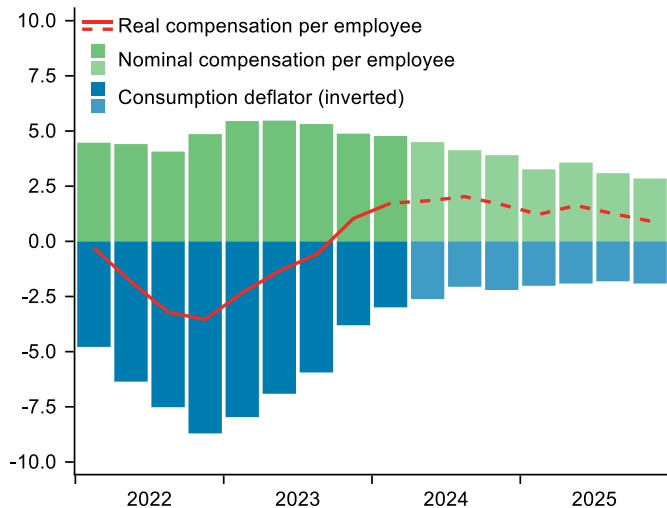
Sources: S&P Global, Eurostat, European Commission, Sentix, CEPR, Macrobond, BNP Paribas

Easing financial conditions should underpin a continued recovery



Sources: Bloomberg, Eurostat, Macrobond, BNP Paribas

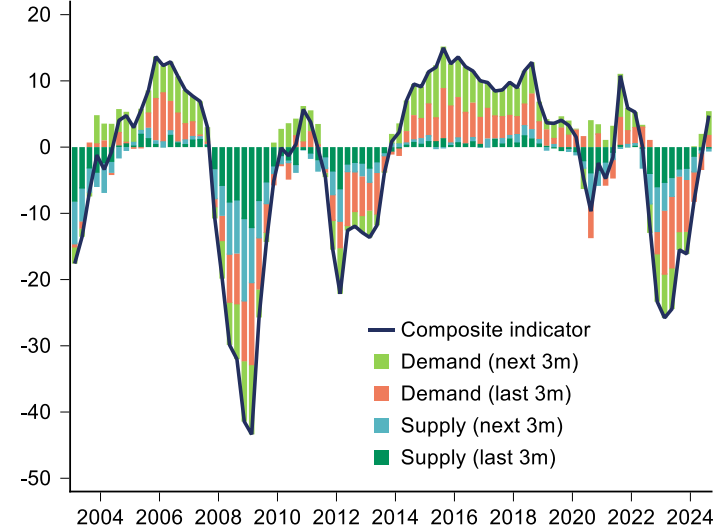
Positive real income growth is expected to support consumer spending



Lighter colours depict BNPP forecasts

Sources: Eurostat, Macrobond, BNP Paribas

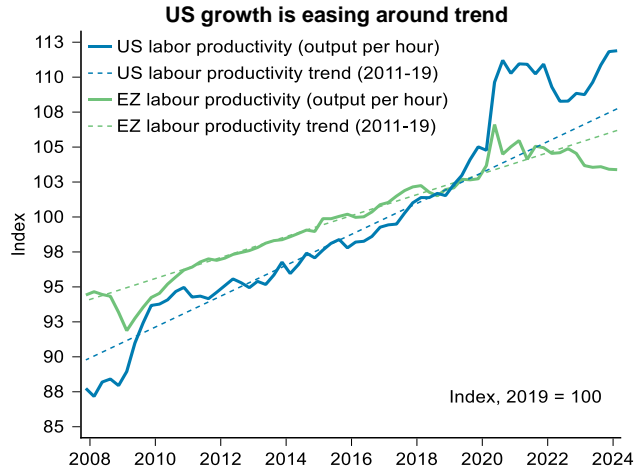
Credit conditions are already showing signs of easing



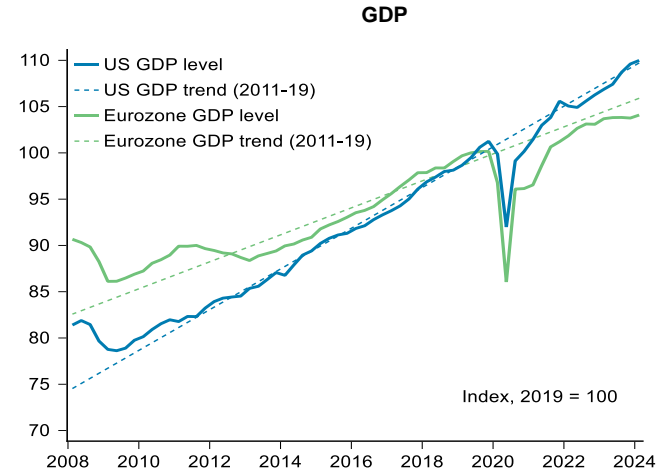
Sources: ECB, Macrobond, BNP Paribas



# Europe versus US productivity

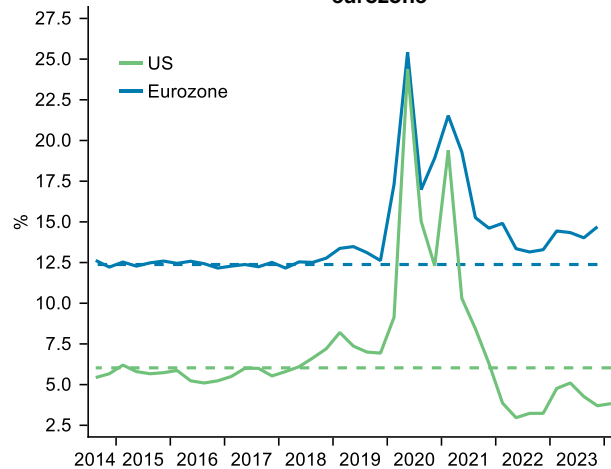


Sources: Macrobond, BNP Paribas



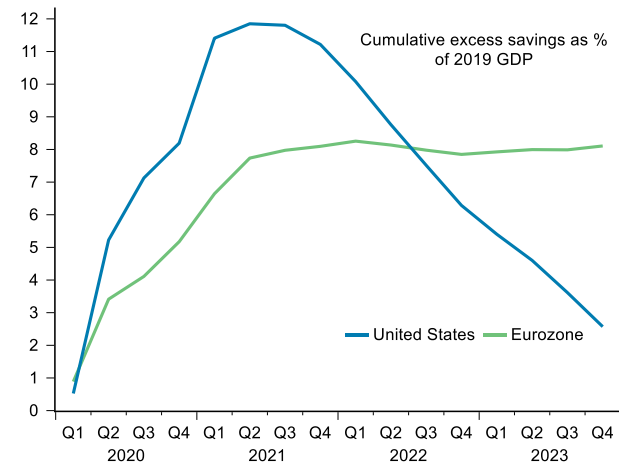
Sources: Macrobond, BNP Paribas

## US households have been much more willing to dis-save than those in the eurozone



Sources: Macrobond, BNP Paribas

## US households used excess savings to stave off a hard landing



Sources: Macrobond, BNP Paribas



# Busy economic calendar in September

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2 China - Caixin Manu PMIs	3 US - ISM Manu PMI	4	5 US - ISM Services PMIs	6 US - NFPs	7
8	9 China - Inflation rate	10 UK - unemployment rate	11 US - CPI	12 ECB - meeting	13	14
15	16	17 ZEW- Economic indicator US - Retail Sales	18 FOMC Meeting UK Inflation	19 BoE Meeting	20 BoJ meeting Inflation Japan	21
22	23 Europe Pmis	24	25	26 GDP growth rate Final German Consumer confidence	27	28

Sources: Bloomberg, BNP Paribas

Events	Bear case	base case	bull case	Past median realized move (last 2y)	Next event implied move	% of times straddle paid off
NFP	Recession fear: The labor market remains the key focus of the Fed. Materially weaker NFP would show job market is rapidly cooling, affirming the July NFP wasn't a one-off print and likely affirms 50bp cut pricing for Sep meeting.	Econ estimate of 175k vs. 160k consensus. The print would be a bounce from July's weak print and will likely determine the size of a Sep cut	Stronger print. Good news has become good news and this would be a welcome sign.	SPX -> 0.97%	SPX -> 1.3%	SPX -> 40% but 3/4 last times
	RTY is priced as the most reactive for a reason given it is the most macro-sensitive index.	Markets breathe a sigh of relief for an in-line print, avoiding the risk case.	With equities bouncing around ATH and NVDA earnings not eliciting a significant index reaction, could be the catalyst to break past ATH. If our economic forecasts materialize and there is strength in NFP then this is a compelling catalyst. SPX upside looks attractive	NDX -> 1.2% (1.4%, last 4 prints) RTY -> 1.2 (1.5% last 4 prints)	RTY -> 2.7% NDX -> 1.8%	NDX -> 44% but 3/4 last times RTY -> 25%

Sources: Bloomberg, BNP Paribas

## 05 Delta one – pick of the month



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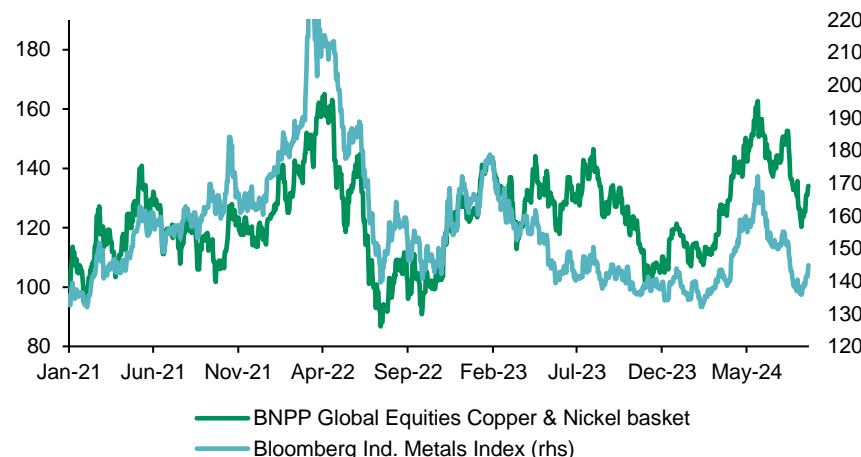
# Structural theme: Bad cop, good copper

**Demand to outpace supply:** We are turning bullish on names exposed to transition metals (copper and nickel) on a medium- to long-term horizon. The supply-demand dynamic looks distorted over coming years, as highlighted by our BNP Paribas Exane sector analysts in [\(AI Enablers: Copper\)](#).

- **Demand:** Estimates are for additional global demand from AI amounting to 250-500kt (0.9-1.8% of global demand). While it might seem low, this incremental demand for an overlooked metal is expected to further tighten the copper market (which is already in deficit) in the medium term.
- **Supply:** We expect primary copper supply to peak in 2026 and start to gradually decrease thereafter, due to a confluence of steadily declining ore grades and a lack of greenfield mines being developed.

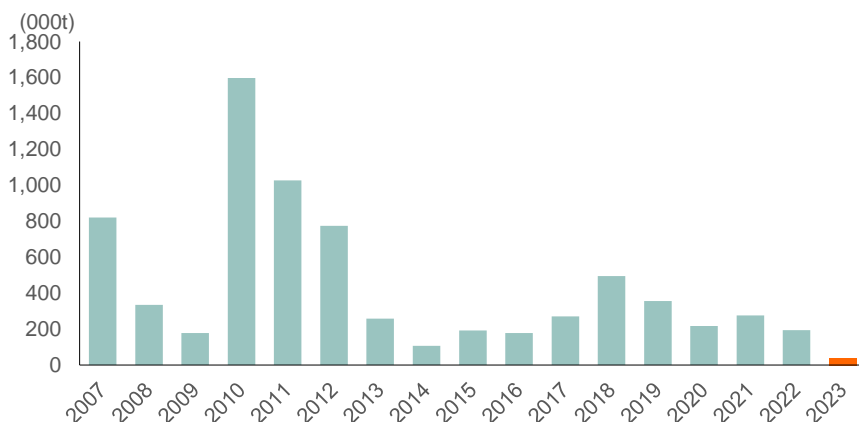
**Valuations:** We believe that current valuations offer an attractive entry point to benefit from the expected AI data centre-fuelled demand for copper over coming years. Additionally, prices of industrial metals, which have been highly correlated to our basket, are currently near multi-year lows. This could benefit our basket should they bounce back, boosted by AI-driven demand.

**Fig. 1: Industrial metals prices, which have been highly correlated to our basket, are currently near multi-year lows**



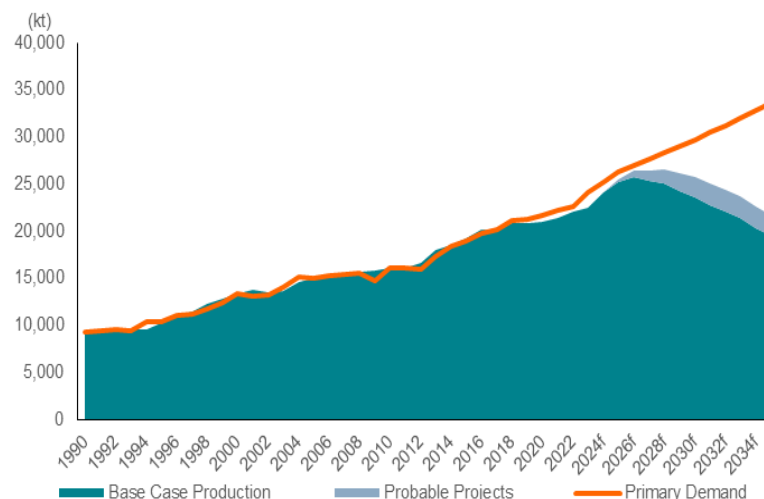
Sources: Bloomberg, BNP Paribas. Past performance is not indicative of future performance.

**Fig. 2: Supply: 2023 was a record low for global greenfield production sanctioned**



Sources: Bloomberg, BNP Paribas. Past performance is not indicative of future performance.

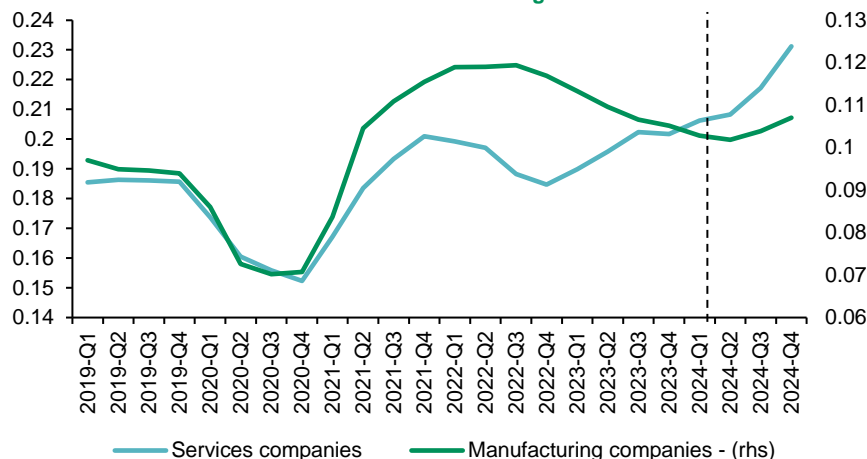
**Fig. 3: Primary supply of copper to peak in 2026**



Sources: Bloomberg, BNP Paribas. Past performance is not indicative of future performance.

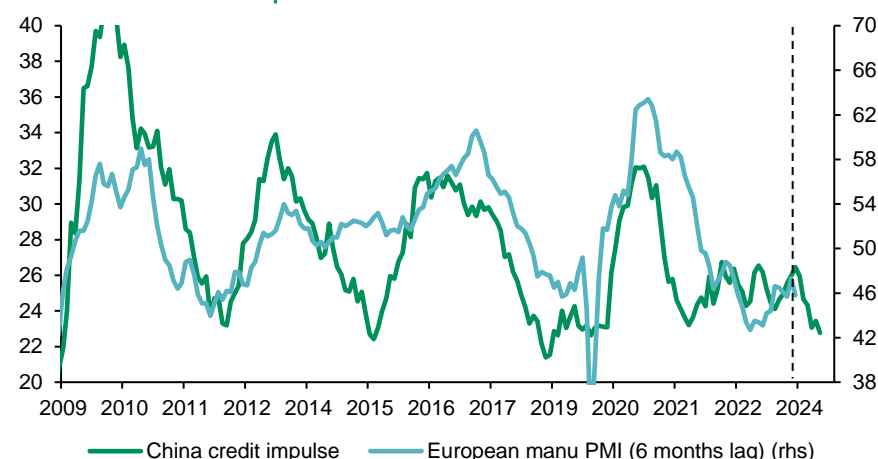
# A story of two tales: Services (BNPPEUSV) over Manufacturing (BNPPEUMF)

**Fig. 1: Margins of services industries seem to have increased much more than manufacturing**



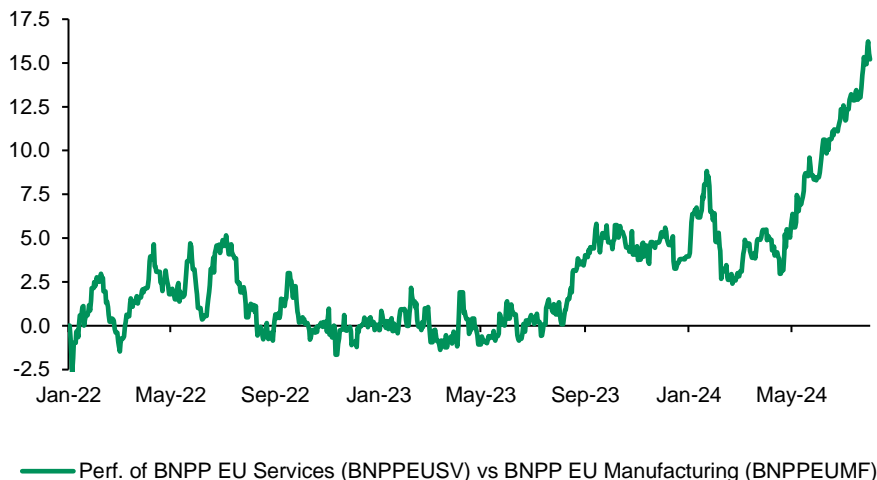
Sources: Visible Alpha, BNP Paribas. Past performance is not indicative of future performance.

**Fig. 2: China credit impulse suggests that Manufacturing in Europe could remain under pressure over the next six months**



Sources: BNP Paribas. Past performance is not indicative of future performance.

**Fig. 3: We expect the outperformance of BNPP EU Services over Manufacturing to continue given weakness in China**



Sources: BNP Paribas. Past performance is not indicative of future performance.

**Fig. 4: BNPP EU Services (BNPPEUSV) versus Manufacturing (BNPPEUMF) baskets sector exposures**

Sector	BNPP EU Services	BNPP EU Manu	Net Long-Short
Health Care	23.6%	0.0%	23.6%
Banks	22.9%	0.0%	22.9%
Technology	15.8%	0.0%	15.8%
Insurance	11.6%	0.0%	11.6%
Financial Services	8.9%	0.0%	8.9%
Utilities	8.5%	0.0%	8.5%
Telecommunications	3.8%	0.0%	3.8%
Media	3.2%	0.0%	3.2%
Retail	1.7%	0.0%	1.7%
Real Estate	0.0%	0.0%	0.0%
Travel and Leisure	0.0%	0.0%	0.0%
Chemicals	0.0%	5.1%	-5.1%
Basic Resources	0.0%	5.7%	-5.7%
Personal Care, Drug and Grocery Stores	0.0%	5.8%	-5.8%
Construction and Materials	0.0%	7.4%	-7.4%
Food, Beverage and Tobacco	0.0%	10.3%	-10.3%
Automobiles and Parts	0.0%	10.4%	-10.4%
Energy	0.0%	11.9%	-11.9%
Consumer Products and Services	0.0%	15.2%	-15.2%
Industrial Goods and Services	0.0%	28.3%	-28.3%

Sources: BNP Paribas. Past performance is not indicative of future performance.

## 06 Flow and positioning



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# Positioning: A story of two halves

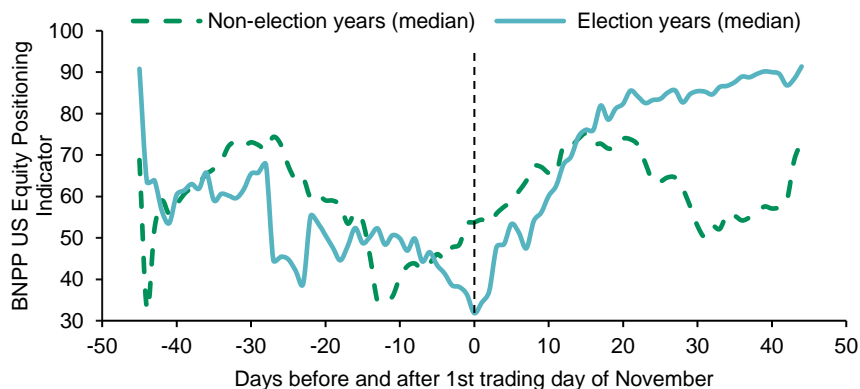
**Not back to the highs:** Heading into NFP on Friday, positioning across all regions looks slightly more balanced with our EU, US and JP EPIs in the 49 to 63 range (out of 100\*). This suggests that any potential sell-off may be less severe, as the overbought condition is not as present.

## US election focus, a story of two halves:

- US presidential election patterns display a seasonal rhythm, particularly around September and October, which favours owning volatility and staying defensive until Election Day. As Figure 2 illustrates, investors usually de-risk leading up to elections and then reinvest afterward. In non-election years, investors often re-leverage around mid-October, while in election years, they tend to wait for more certainty after the elections (in November) before reinvesting in equities.
- We therefore stay cautious for the next couple of months before turning constructive on equities and investing in manufacturing-led industries.

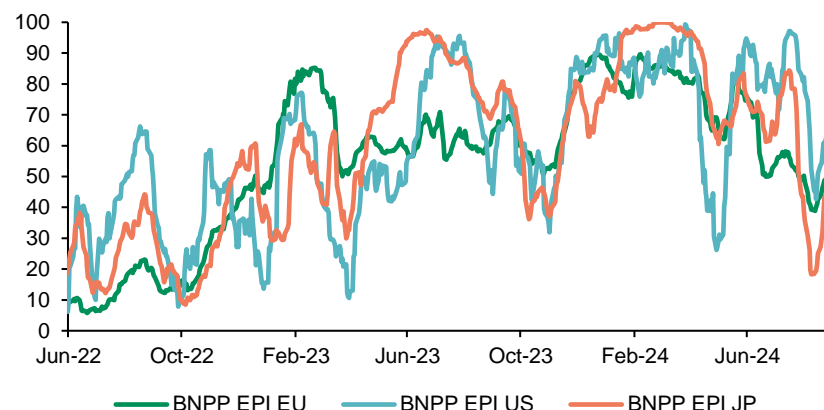
**Sector focus:** Investors continue to prefer investing in Services over Manufacturing with Real Estate, Financials and Telecoms the most-loved sectors last week (on a 5y z-score basis) while Consumer Goods and Energy saw strong outflows. We continue to see upside in services over manufacturing ahead as the latter remains heavily under pressure given sustained weakness in China.

**Fig. 2: Typically, de-risking into an election and adding back after**



Sources: Bloomberg, Eurex, S3, EPFR, BNP Paribas. Past performance is not indicative of future performance.

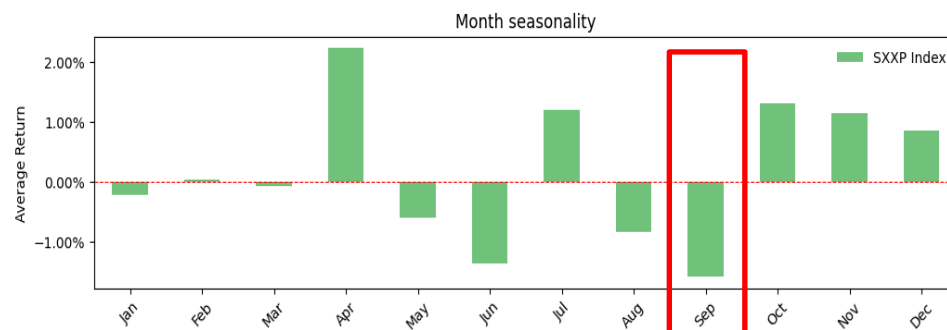
**Fig. 1: Positioning in Europe remains broadly neutral with recent deleveraging driven by systematic funds**



\* All indicators are between 0 (max bearish) and 100 (max bullish)

Sources: EPFR, BNP Paribas. Past performance is not indicative of future performance.

**Fig. 3: Negative seasonality for SXXP in September**

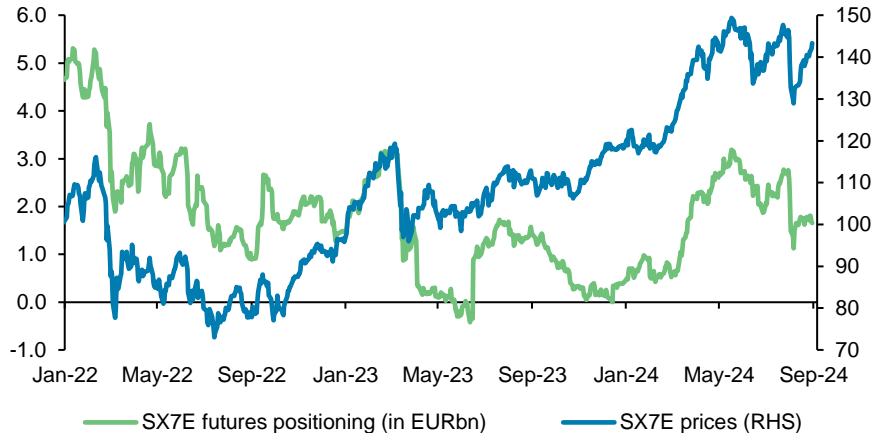


Sources: BNP Paribas. Past performance is not indicative of future performance.

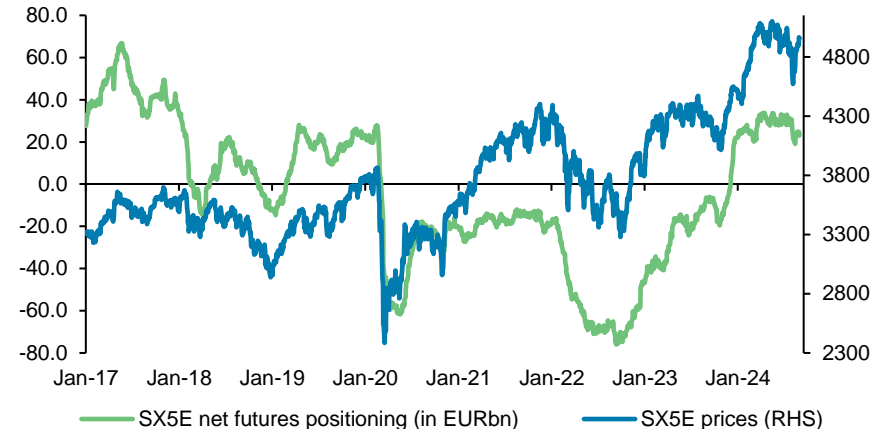


## FLOW AND POSITIONING

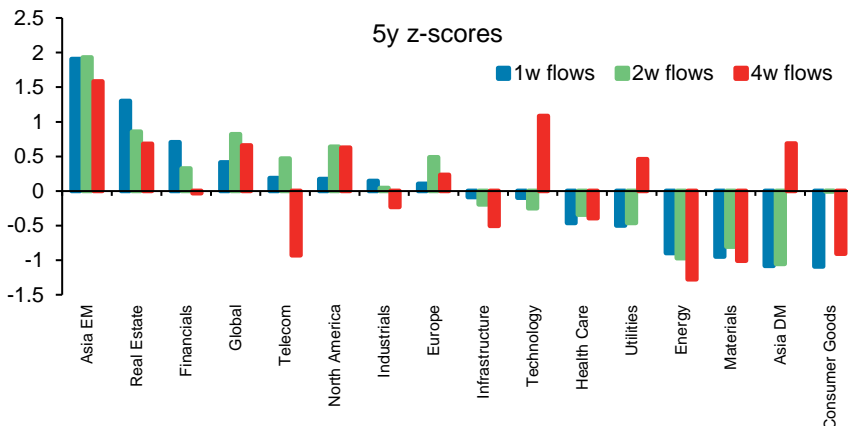
# Sector focus: Services over Manufacturing

**SX7E net futures positioning remains broadly neutral**


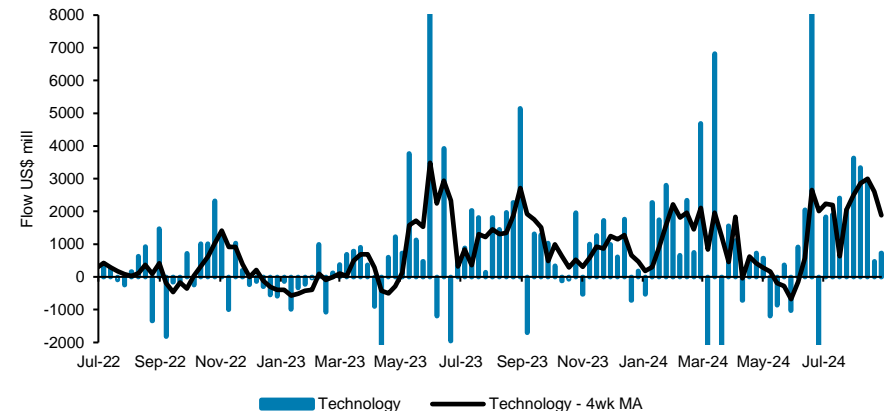
Sources: Eurex, BNP Paribas. Past performance is not indicative of future performance.

**SX5E futures positioning has stagnated recently at ~EUR20-30bn, near the highs of the past six years**


Sources: EPFR, BNP Paribas. Past performance is not indicative of future performance.

**Fund flows (5y z-scores): Investors prefer services over manufacturing sectors**


Sources: EPFR, BNP Paribas. Past performance is not indicative of future performance.

**Fund flows into Tech globally: Investors appetite remains strong**


Sources: EPFR, BNP Paribas. Past performance is not indicative of future performance.

\*Last data as of 31 July.

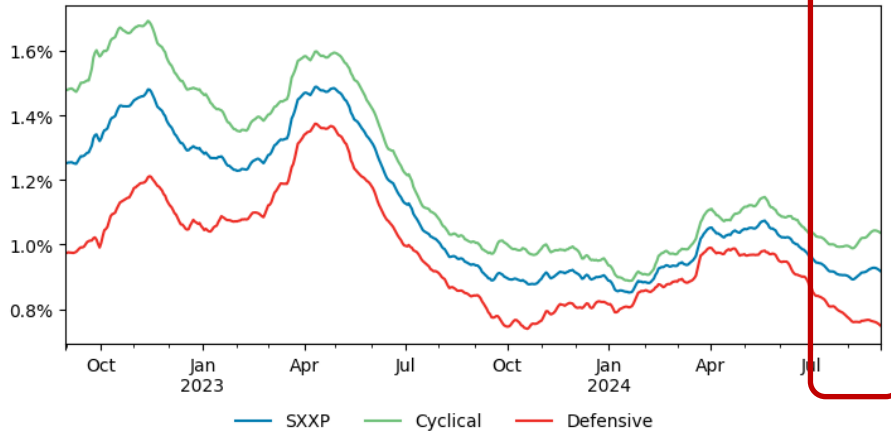


## FLOW AND POSITIONING

## SXXP short interest

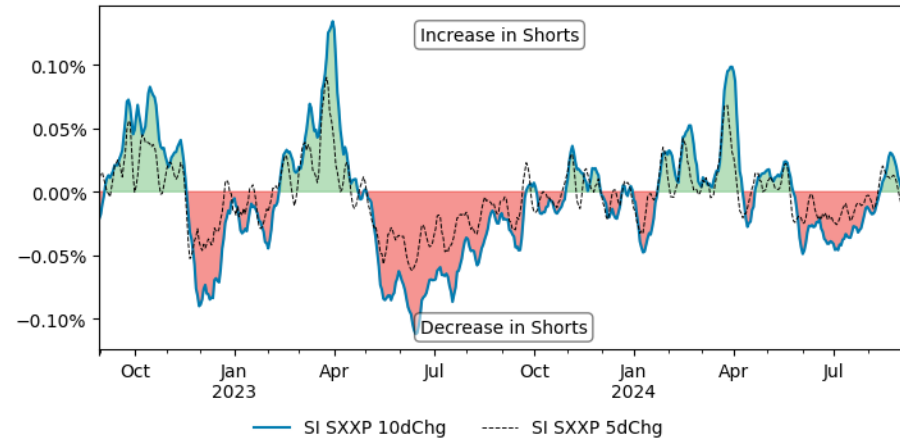
Hedge funds short increasing again in Europe, most notably in cyclicals

SXXP short interest 2y chart



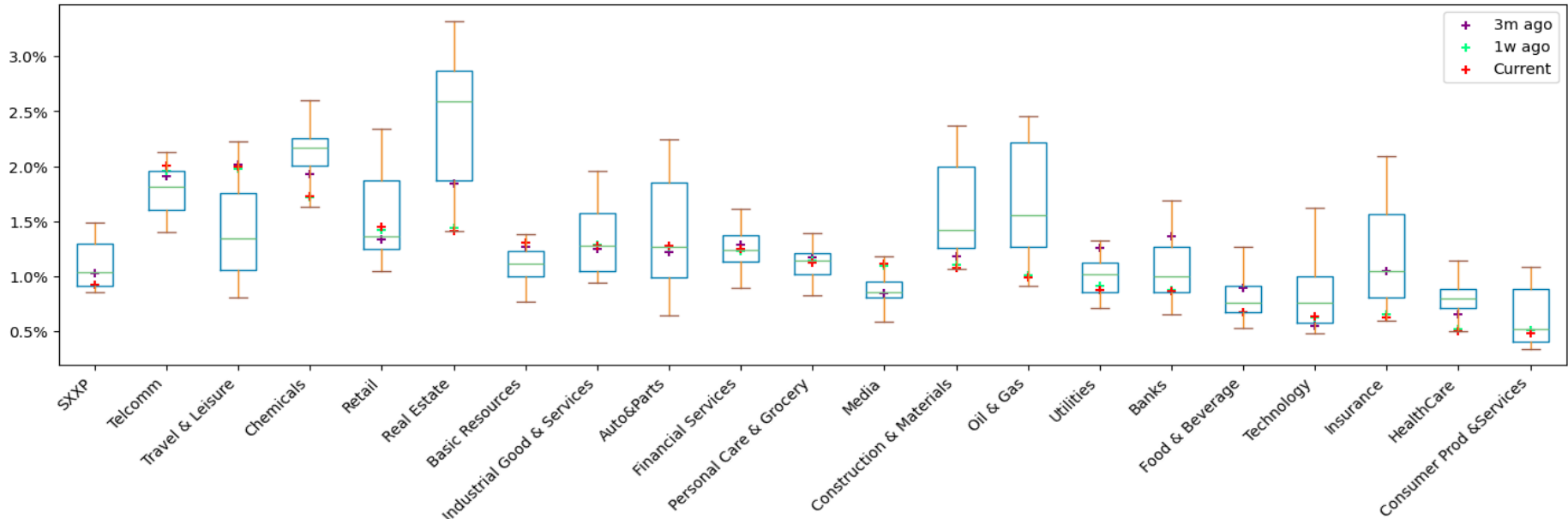
Sources: S3, BNP Paribas

SXXP short interest change 2y chart



Sources: S3, BNP Paribas

SXXP sector short interest 2y boxplot



Sources: S3, BNP Paribas



## SXXP short interest

	Current Value	1W_Chg	1M_Chg	3M_Chg	6M_Chg	1Y_Chg	2Y_Chg	1Y_Pct	2Y_Pct
SXXP	0.92%	-0.01	0.01	-0.1	-0.0	-0.0	-0.3	52	26
Auto&Parts	1.27%	0.00	0.01	0.1	0.4	0.3	-0.9	89	53
Banks	0.86%	-0.02	-0.01	-0.5	-0.1	0.1	-0.0	44	27
Basic Resources	1.31%	0.00	0.04	0.0	0.2	0.5	0.2	91	96
Chemicals	1.73%	0.01	0.16	-0.2	-0.1	-0.5	-0.5	22	11
Construction & Materials	1.07%	-0.03	-0.07	-0.1	-0.3	-0.2	-0.7	1	1
Consumer Prod & Services	0.48%	-0.03	0.01	-0.0	0.0	0.1	-0.5	72	43
Financial Services	1.25%	0.01	0.03	-0.0	-0.0	-0.2	0.4	54	54
Food & Beverage	0.68%	0.00	-0.01	-0.2	-0.1	-0.0	0.0	40	28
HealthCare	0.50%	-0.02	-0.01	-0.2	-0.3	-0.2	-0.2	0	0
Industrial Good & Services	1.28%	-0.01	0.04	0.0	0.2	0.3	-0.3	86	50
Insurance	0.62%	-0.03	-0.02	-0.4	-0.2	-0.3	-1.0	4	2
Media	1.11%	0.01	0.15	0.3	0.4	0.5	0.3	100	93
Oil & Gas	0.99%	-0.02	0.05	-0.0	-0.4	-0.6	-1.3	10	5
Personal Care & Grocery	1.12%	-0.02	-0.02	-0.0	0.3	-0.1	-0.1	66	40
Real Estate	1.41%	-0.03	-0.05	-0.4	-0.3	-1.7	-0.9	1	0
Retail	1.45%	0.02	0.04	0.1	0.2	0.4	-0.9	99	61
Technology	0.64%	0.01	0.09	0.1	0.1	-0.2	-0.5	66	33
Telcomm	2.01%	0.05	-0.00	0.1	0.5	0.5	0.3	98	88
Travel & Leisure	2.00%	0.02	0.36	-0.0	1.0	1.1	-0.2	99	87
Utilities	0.87%	-0.04	-0.18	-0.4	-0.0	0.0	-0.2	45	28

Sources: S3 Partners, BNP Paribas

# BNPP Equity Positioning Indicators

Table 1: BNP Paribas EU EPI and its components

	02/Sep/24	30/Aug/24	1m ago	3m ago	6m ago
CTA	50.1	48.0	15.2	69.7	98.7
Eurex net Futures	76.6	76.6	78.0	86.2	92.7
ETF	45.5	46.0	44.8	58.9	50.6
Mutual Funds	28.3	28.3	26.0	23.7	25.5
Short Interest	71.2	71.2	79.4	55.7	59.7
Vol Target	41.9	41.4	20.0	84.4	96.4
<b>BNPP EU EPI</b>	55.0	54.5	44.8	72.0	84.0

\* All indicators are between 0 (max bearish) and 100 (max bullish)

Sources: Bloomberg, Eurex, S3, EPFR, BNP Paribas

Table 3: BNP Paribas US EPI and its components

	02/Sep/24	30/Aug/24	1m ago	3m ago	6m ago
CFTC buyside	97.0	97.0	96.3	99.3	83.6
CTA	67.1	66.0	39.9	73.3	85.8
Vol Target	47.0	45.9	48.1	90.3	77.0
ETF	44.2	44.2	99.9	61.5	67.5
Mutual Funds	64.7	64.7	57.1	82.1	57.7
Short Interest	54.3	54.3	82.3	86.3	37.1
Pension Fund rebal	49.9	50.3	43.8	51.1	57.7
<b>BNPP US EPI</b>	63.8	63.2	74.5	91.6	86.4

\* All indicators are between 0 (max bearish) and 100 (max bullish)

Sources: Bloomberg, CFTC, EPFR, BNP Paribas

Table 5: BNP Paribas Japan EPI and its components

	02/Sep/24	30/Aug/24	1m ago	3m ago	6m ago
AM net futures	48.7	48.7	41.7	51.5	95.4
CTA	39.9	38.0	13.2	60.2	94.4
ETF	14.5	13.9	14.5	56.1	68.5
Cash Equities	21.9	21.9	32.8	48.1	89.2
Put/Call volume	100.0	99.9	76.6	85.2	89.8
<b>BNPP Japan EPI</b>	49.4	48.2	30.8	71.3	99.0

\* All indicators are between 0 (max bearish) and 100 (max bullish)

Sources: Bloomberg, CFTC, BNP Paribas

Table 2: BNP Paribas EU EPI versus Stoxx Europe 600 forward returns

EU Positioning levels	avg forward returns (%)		skewness	
	1m	3m	1m	3m
0 to 20	1.2	3.3	0.0	0.3
20 to 40	0.7	1.9	-0.4	0.6
40 to 60	-0.1	0.3	-1.6	-0.6
60 to 80	0.3	0.4	-4.4	-2.3
80 to 100	0.1	-0.3	-0.1	-2.4

Sources: Bloomberg, BNP Paribas

Table 4: BNP Paribas US EPI versus S&amp;P 500 forward returns

US Positioning levels	avg forward returns (%)		skewness	
	1m	3m	1m	3m
0 to 20	1.7	3.3	0.2	0.7
20 to 40	0.6	2.9	-0.9	-1.0
40 to 60	0.4	1.7	-1.5	-0.8
60 to 80	0.3	0.4	-2.7	-1.3
80 to 100	0.6	2.3	-2.3	-3.1

Sources: Bloomberg, BNP Paribas

Table 6: BNP Paribas Japan EPI versus Nikkei 225 forward returns

JP Positioning levels	avg fwd returns (%)		skewness	
	1m	3m	1m	3m
0 to 20	1.9	3.7	-0.3	0.6
20 to 40	0.2	2.5	-1.5	-0.3
40 to 60	1.0	4.2	0.2	-0.3
60 to 80	0.6	2.2	0.1	-0.2
80 to 100	0.4	-0.8	-0.3	-0.5

Sources: Bloomberg, BNP Paribas

# 07 Delta replacement, underwriting and overwriting



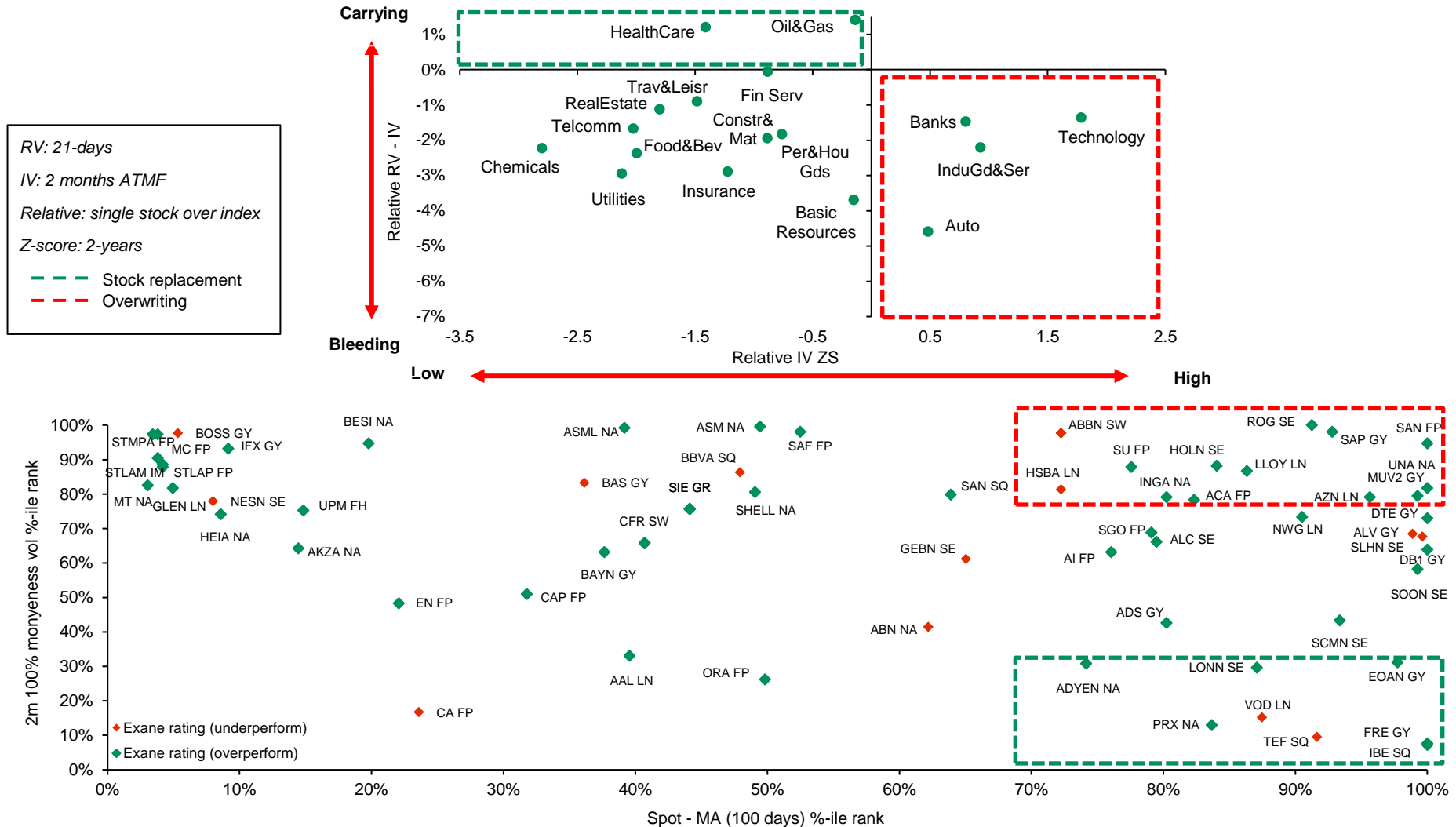
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## OVERWRITING

# Delta replacement, underwriting and overwriting

Stock replacement, overwriting and underwriting candidates



Sources: BNP Paribas. Past performance is not indicative of future performance.

## 08 Equities playbook in rate cycle



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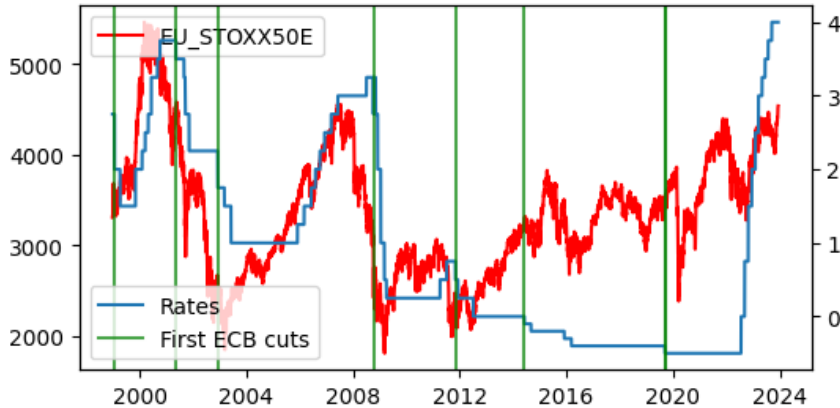
The bank for a changing world





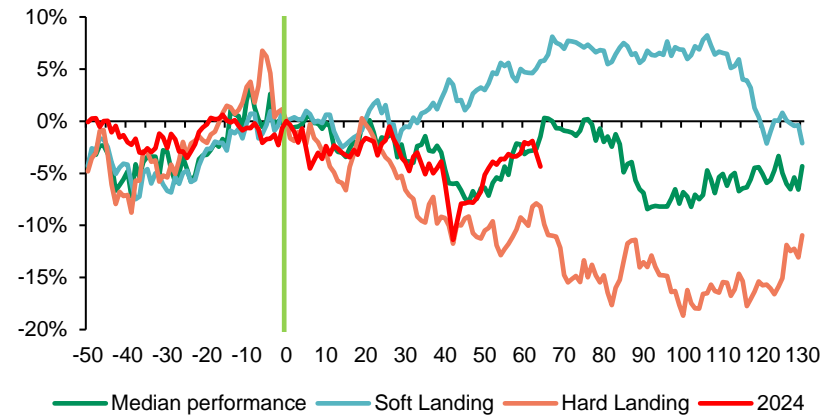
# Rates: Market reaction after first ECB cut

SX5E performance vs ECB deposit rate



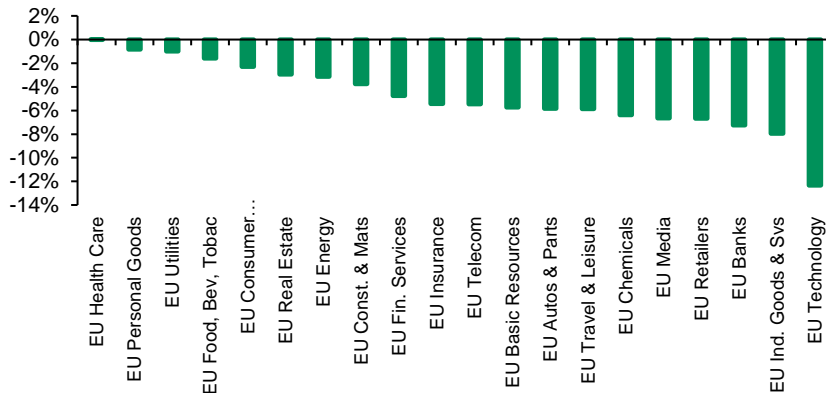
Sources: Bloomberg, BNP Paribas.

SX5E performance before and after first ECB cut



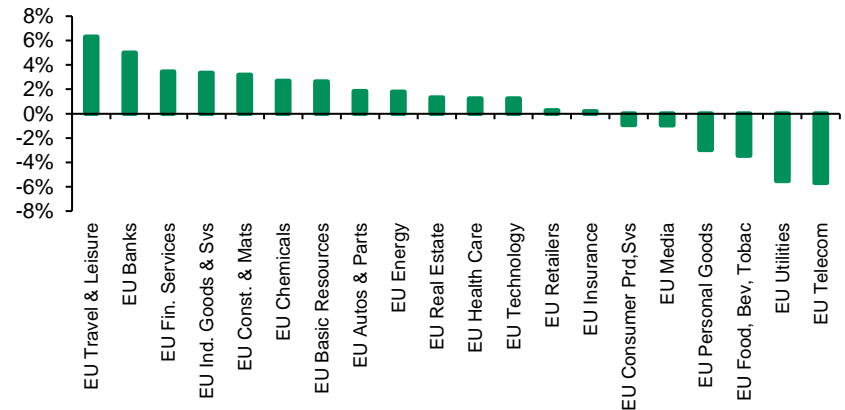
Sources: Bloomberg, BNP Paribas.

EU sector performance - 3m after ECB cut (Hard Landing)



Sources: Bloomberg, BNP Paribas.

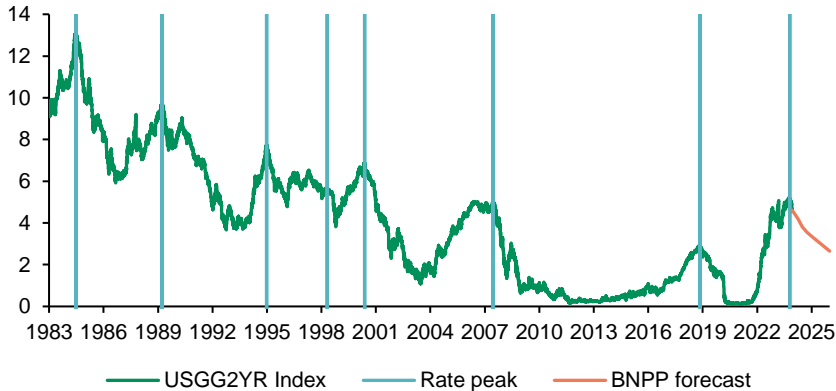
EU sector performance - 3m after ECB cut (Soft Landing)



Sources: Bloomberg, BNP Paribas.

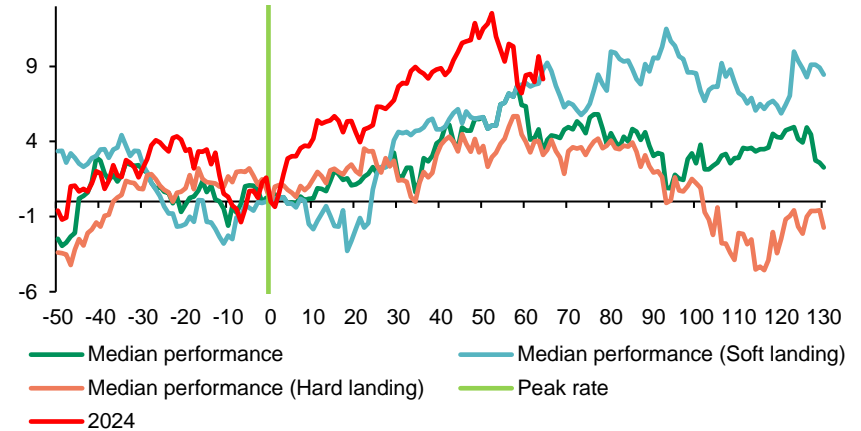
# Rate cut environment: Peak US rates

Peak of rates (US 2y)



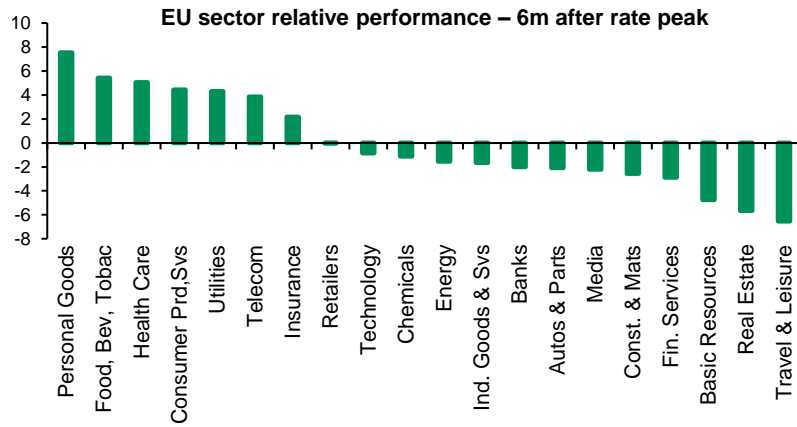
Sources: Bloomberg, BNP Paribas.

SPX: Performance before and after US rates reach a peak



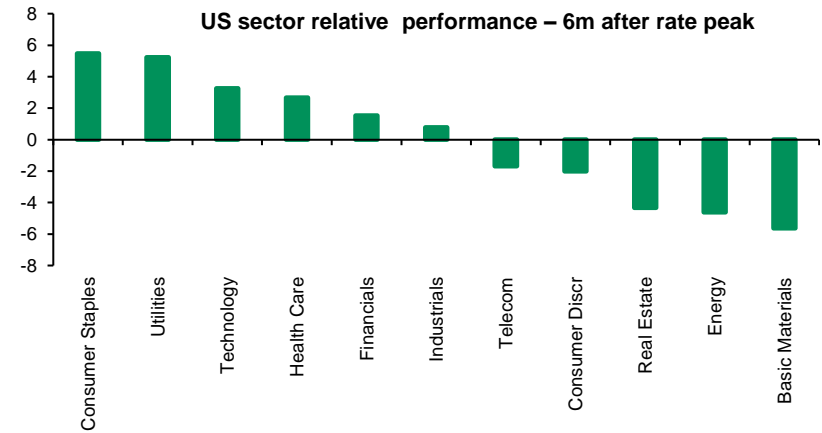
Sources: Bloomberg, BNP Paribas.

Sector performance – 6m after rate peak



Sources: BNP Paribas.

US sector relative performance – 6m after rate peak



Sources: BNP Paribas.



# Rate cut environment: Peak US rates

Fed cuts	Rate cuts magnitude (after 260d)	SPX before	SPX after	VIX before	VIX after	US_EPS before	US_EPS after	US_PE before	US_PE after	US weekly jobless (k) before	US weekly jobless (k) after	US_inflation before	US_inflation after	US_PMI before	US_PMI after	US_GDP before	US_GDP after
Jul-19	-2.25	4.3	9.3	1.4	8.0	0.3	-16.0	5.6	29.1	-13.9	220.6	-0.2	-1.2	-2.6	1.6	0.3	-9.7
Sep-07	-3.25	0.6	-20.1	2.8	10.0	1.8	-3.2	-5.2	-13.5	3.1	115.7	-0.7	3.4	-1.8	-2.1	0.0	-0.5
Jan-01	-4.75	-1.3	-14.3	0.0	-3.9	-3.5	-14.5	5.0	-1.2	48.9	59.7	-0.1	-1.8	-5.8	1.4	-1.1	-2.7
Sep-98	-0.25	-10.0	22.2	16.0	-10.0	1.4	9.0	-12.3	15.7	-41.0	-17.7	-0.1	0.7	0.4	5.5	0.0	0.6
Jul-95	-0.75	7.9	21.4	-0.4	2.7	2.3	9.1	3.8	13.1	18.0	-21.8	0.1	-0.2	-6.2	7.7	-1.1	1.6
Jun-89	-1.50	10.8	14.1			0.6	0.1	6.4	11.3	5.9	31.6	0.6	-1.0	-4.8	0.2	0.5	-1.5
Oct-87	1.00	-31.5	22.9			6.7	15.1	-7.8	-23.3	-17.8	-11.5	0.5	-0.2	2.5	-5.5	-0.1	0.9
Oct-84	-3.75	10.7	13.1							35.1	13.2	0.1	-1.2	-8.1	-0.1	-1.1	-2.6

(1) All values are relative to the level at the date of the Fed cut

(2) Before: 50 bday before Fed cut

(3) After: 260 bday after Fed cut

Sources: Bloomberg, BNP Paribas. Past performance is not indicative of future performance.

Fed cuts	Rate level (after 260d)	SPX before	SPX after	VIX before	VIX after	US_EPS before	US_EPS after	US_PE before	US_PE after	US weekly jobless (k) before	US weekly jobless (k) after	US_inflation before	US_inflation after	US_PMI before	US_PMI after	US_GDP before	US_GDP after
Jul-19	0.25	2856.3	3258.4	14.8	24.1	173.2	146.0	16.5	22.4	220.3	427.0	2.0	0.6	53.6	52.6	1.9	-7.5
Sep-07	2.00	1510.1	1213.6	17.6	30.3	101.2	99.8	15.1	12.4	317.0	435.8	2.7	5.4	54.0	50.1	1.9	1.4
Jan-01	1.75	1364.9	1154.7	26.7	22.7	64.3	53.1	20.9	21.7	298.4	407.0	3.5	1.6	49.7	45.3	4.0	0.2
Sep-98	5.25	1165.1	1282.2	20.1	26.1	52.9	58.5	22.2	22.5	346.7	287.9	1.7	2.3	48.9	54.8	4.1	4.7
Jul-95	5.25	513.6	672.4	11.9	14.2	39.8	44.5	12.7	14.9	346.5	342.8	2.9	2.8	52.1	53.6	3.5	4.0
Jun-89	8.25	290.6	367.4			28.9	29.1	10.3	12.2	319.2	356.7	4.8	4.4	54.1	49.5	3.8	2.8
Oct-87	8.25	328.0	276.4			21.7	26.7	14.3	10.1	325.8	296.5	3.9	4.2	57.5	54.5	3.4	4.2
Oct-84	8.00	147.8	185.1				19.8		9.2	361.3	409.5	4.2	3.1	58.1	49.9	8.0	4.3
Today	-	4604.4		13.1						13.9		3.2		46.7		3.0	

(1) All values are the level before and after the cut

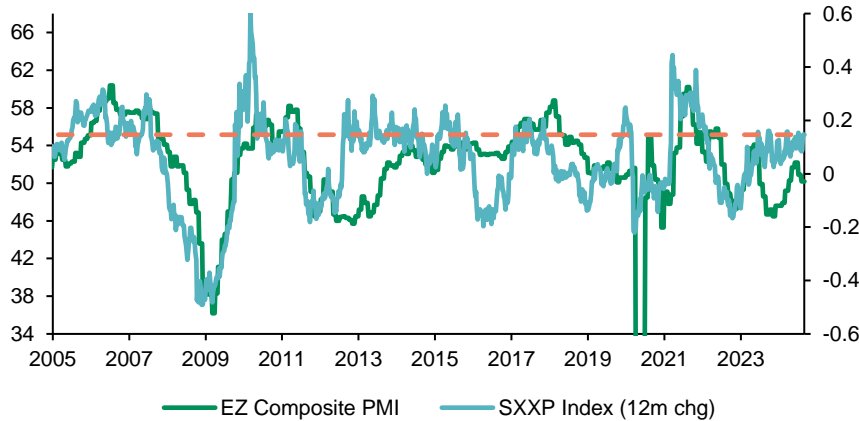
(2) Before: 50 bday before Fed cut

(3) After: 260 bday after Fed cut

Sources: Bloomberg, BNP Paribas. Past performance is not indicative of future performance.

# Rates: SXXP scenarios

SXXP pricing PMI at ~54/55



Sources: Bloomberg, BNP Paribas.

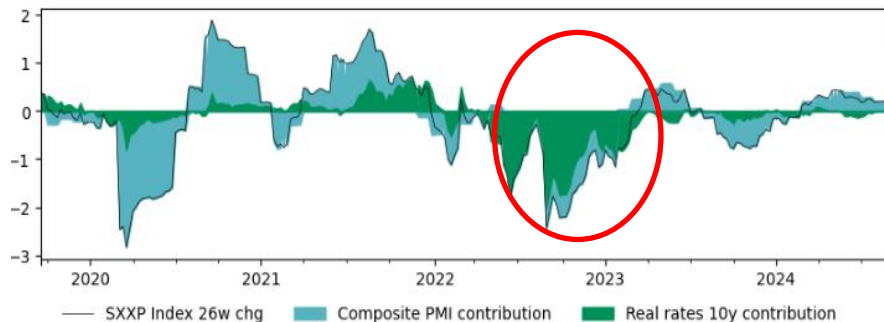
SXXP return\* based on PMI and rates

		Composite PMI								
		43	45	47	49	51	53	55	57	59
Real rates 10y	-0.7	-2.02%	-0.12%	1.77%	3.67%	5.57%	7.47%	9.36%	11.26%	13.16%
	-0.45	-2.92%	-1.02%	0.88%	2.78%	4.67%	6.57%	8.47%	10.36%	12.26%
	-0.2	-3.81%	-1.92%	-0.02%	1.88%	3.78%	5.67%	7.57%	9.47%	11.37%
	0.05	-4.71%	-2.81%	-0.91%	0.98%	2.88%	4.78%	6.67%	8.57%	10.47%
	0.3	-5.61%	-3.71%	-1.81%	0.09%	1.98%	3.88%	5.78%	7.68%	9.57%
	0.55	-6.50%	-4.60%	-2.71%	-0.81%	1.09%	2.98%	4.88%	6.78%	8.68%
	0.8	-7.40%	-5.50%	-3.60%	-1.71%	0.19%	2.09%	3.99%	5.88%	7.78%
	1.05	-8.29%	-6.40%	-4.50%	-2.60%	-0.71%	1.19%	3.09%	4.99%	6.88%

Sources: Bloomberg, BNP Paribas. . \*Return from current level

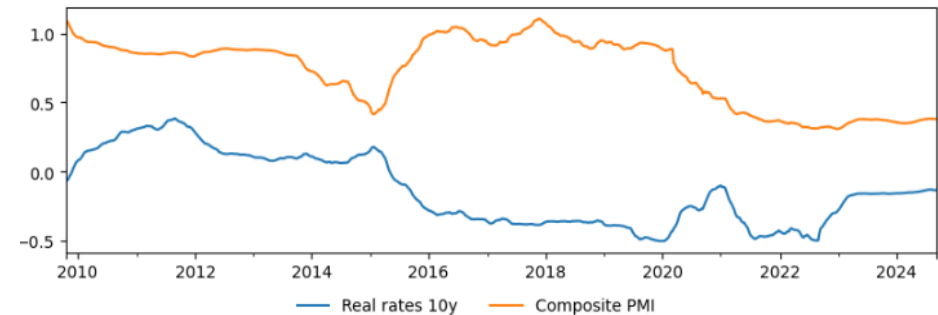
Current PMIs

SXXP 6m return contribution



Sources: Bloomberg, BNP Paribas.

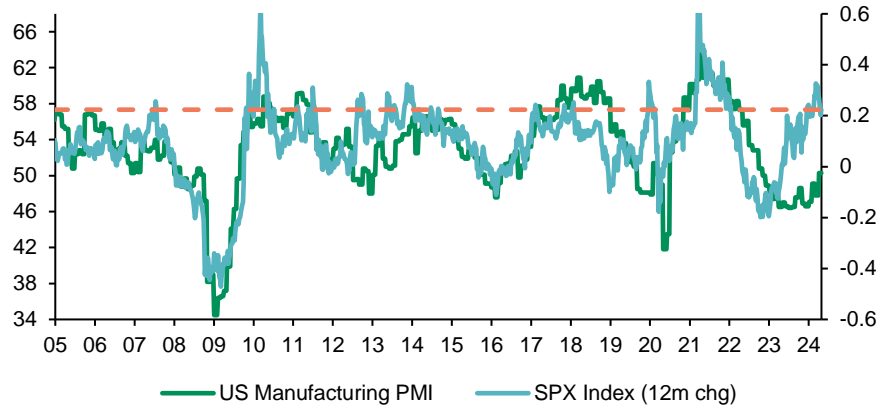
SXXP 5y regression versus PMI and real rates



Sources: Bloomberg, BNP Paribas.

# Rates: SPX scenarios

SPX pricing PMI at ~54/55



Sources: Bloomberg, BNP Paribas.

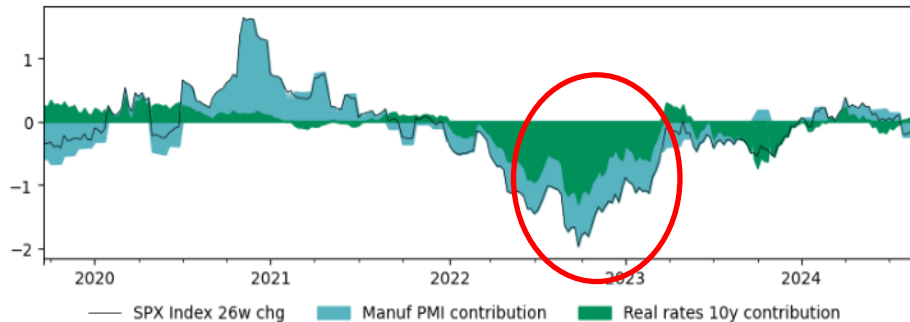
SPX return\* based on PMI and rates

		Manuf PMI								
		39	41	43	45	47	49	51	53	55
Real rates 10y	0.7	-6.77%	-4.70%	-2.64%	-0.57%	1.49%	3.56%	5.63%	7.69%	9.76%
	0.95	-7.79%	-5.72%	-3.66%	-1.59%	0.48%	2.54%	4.61%	6.68%	8.74%
	1.2	-8.80%	-6.74%	-4.67%	-2.61%	-0.54%	1.53%	3.59%	5.66%	7.73%
	1.45	-9.82%	-7.76%	-5.69%	-3.62%	-1.56%	0.51%	2.58%	4.64%	6.71%
	1.7	-10.84%	-8.77%	-6.71%	-4.64%	-2.57%	-0.51%	1.56%	3.62%	5.69%
	1.95	-11.86%	-9.79%	-7.72%	-5.66%	-3.59%	-1.52%	0.54%	2.61%	4.67%
	2.2	-12.87%	-10.81%	-8.74%	-6.67%	-4.61%	-2.54%	-0.48%	1.59%	3.66%
	2.45	-13.89%	-11.82%	-9.76%	-7.69%	-5.63%	-3.56%	-1.49%	0.57%	2.64%
	2.6	-14.50%	-12.43%	-10.37%	-8.30%	-6.24%	-4.17%	-2.10%	-0.04%	2.03%

Sources: Bloomberg, BNP Paribas. \*Return from current level

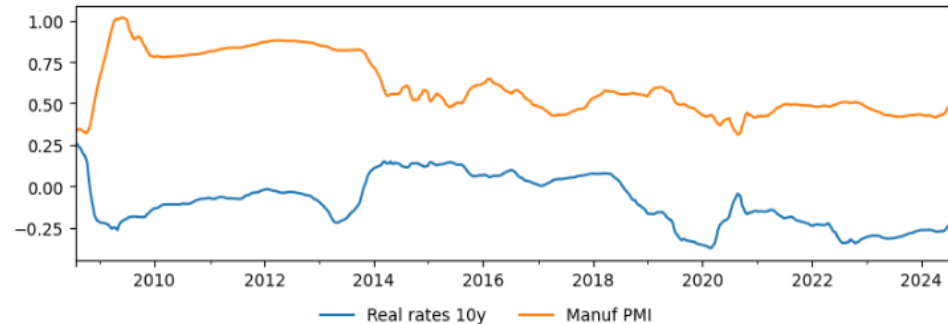
Current PMIs

SPX 6m return contribution



Sources: Bloomberg, BNP Paribas.

SPX 5y regression vs PMI and real rates



Sources: Bloomberg, BNP Paribas.

# 09 QIS



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# QIS – EQUITIES: AIR Intraday EU Ultimate

## BNP Paribas AIR Intraday EU Ultimate ER Index

### Objective

BNPXIASE Index | live since 21 Jul 2023 | EUR, ER

- The strategy aims to capture the generally **positive spread between implied and realized volatility using ultra-short-term options**, while implementing a stringent risk control – **Intraday Delta Hedge**.

### Rationale

- The high gamma/theta profile and the greater value of ultra short puts as they move far OTM\* (strong demand for gap risk hedging) allow to generate a new type of volatility premium with very low correlation to equity benchmarks.

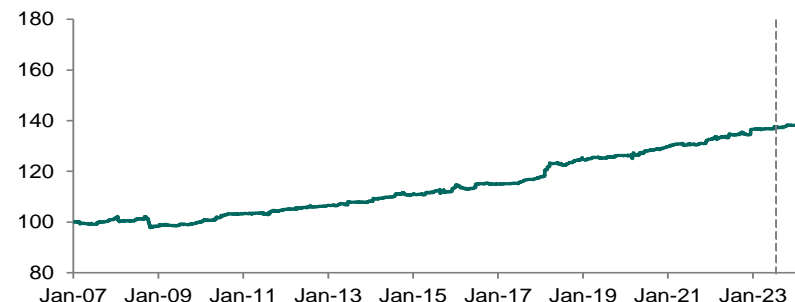
### Methodology

- Synthetically selling very short term (2 to 6 bd\*\* maturity) puts** on Euro Stoxx 50 Index on daily basis
- Very far OTM strike:** Function of the SX5E opening level and the previous day's VSTOXX level. Calibrated in a way that on average the delta of new puts sold synthetically is 2%\*\*\*
- Daily sale of 1 put with overweight on short-term expiries:** 200% of notional for 2bd expiries, 100% for 3bd, 50% for 4bd expiry and 10% for 5bd and 6bd expiries
- Notional:** Varies over time, on average around 200%
- Synthetic option execution time:** Daily at close
- Stringent risk control via Intraday Delta Hedge:** 5 times during the day to better cushion losses in a scenario of accelerating bear markets. (*Hedging of positions built over previous days: newly sold options are not delta hedged on the same day*)

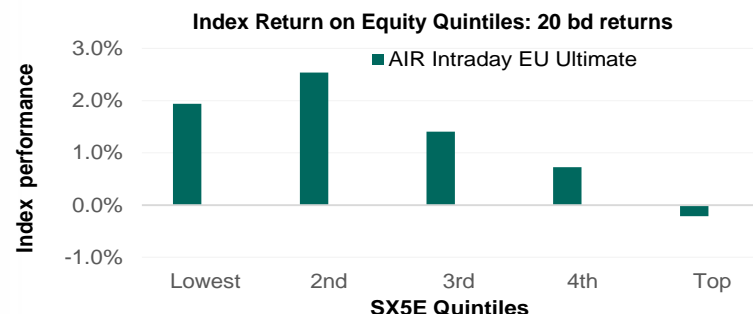
### Overweight short-term expiries to maximize premium

MATURITY	2 bd	3 bd	4 bd	5 bd	6 bd
WEIGHT	200%	100%	50%	10%	10%

### Hypothetical and historical performance



Jan 07 - Apr 24	AIR Intraday EU Ultimate
Return p.a	1.87%
Volatility	1.54%
Sharpe Ratio	1.22
Max Drawdown	-4.37%
Realized on	24 Oct 2008



Sources : Bloomberg, BNP Paribas

Source: Bloomberg, BNP Paribas. Past performance is not an indicator of future performance. BNP Paribas AIR Intraday EU Ultimate ER Index <Bloomberg Code: BNPXIASE Index> is based on hypothetical Past Performance Data ("PPD") prior to its live date of 21 July 2023. All past performance data levels provided in the table and graph above are simulated and must be considered illustrative only. The presentation of hypothetical data reflects the deduction of fees and charges. These simulations are the result of estimates made by BNP Paribas at a given moment on the basis of the parameters selected by BNP Paribas, certain assumptions that may or may not hold in future periods, of market conditions at this given moment and of historical data, which should not be used as guidance, in any way, of the future results. \* OTM : Out of the Money, \*\* bd : business day.\*\*\* The delta parameter may vary, and the max delta may potentially be higher.



# QIS - EQUITIES: TIER EU Ultimate

## BNP Paribas TIER EU Ultimate ER Index

BNPXTIEU Index | live since 16 May 2023 | EUR, ER

### Objective

- The strategy aims to generate income **by applying a put-writing strategy on EU equities using ultra-short-term options.**

### Rationale

- Applying the Target Income Enhanced Returns methodology, live since 2016, using ultra-short-term puts may further enhance the profile of the put-writing strategy.
- The high gamma/theta profile and the greater value of ultra-short-term puts as they move far OTM\* (strong demand for gap risk hedging) may allow to enhance the income generation profile of the strategy, reduce maximum drawdowns and correlation to equity and improve the time to recovery.

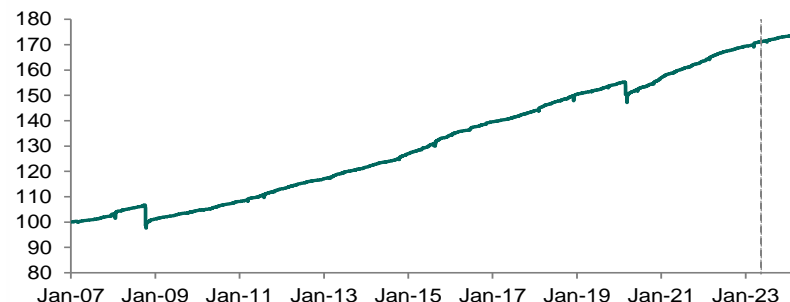
### Methodology

- Synthetically selling very short term (2 to 6 bd\*\* maturity) puts** on Euro Stoxx 50 Index on a daily basis
- Very far OTM strike** (average delta 2% using VSTOXX based formula: i.e. selling further OTM strike when VSTOXX spikes)
- Daily sale of 1 put with overweight on short-term expiries:** 200% of notional for 2bd expiries, 100% for 3bd, 50% for 4bd expiry and 10% for 5bd and 6bd expiries
- Notional:** varies over time, on average around 200%
- Synthetic option execution time:** daily at close

### Overweight short-term expiries to maximize premium

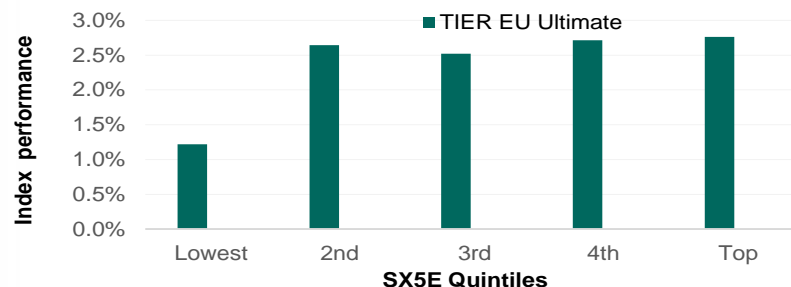
MATURITY	2 bd	3 bd	4 bd	5 bd	6 bd
WEIGHT	200%	100%	50%	10%	10%

### Hypothetical and historical performance



Jan 07 - Apr 24	TIER EU Ultimate
Return p.a	3.26%
Volatility	2.35%
Sharpe Ratio	1.39
Max Drawdown	-8.60%
Realized on	16 Oct 2008

### Index Return on Equity Quintiles: 20 bd returns



Sources : Bloomberg, BNP Paribas

Source: Bloomberg, BNP Paribas. Past performance is not an indicator of future performance. BNP Paribas TIER EU Ultimate ER Index <Bloomberg Code: BNPXTIEU Index> is based on hypothetical Past Performance Data ("PPD") prior to its live date of 16 May 2023. All past performance data levels provided in the table and graph above are simulated and must be considered illustrative only. The presentation of hypothetical data reflects the deduction of fees and charges. These simulations are the result of estimates made by BNP Paribas at a given moment on the basis of the parameters selected by BNP Paribas, certain assumptions that may or may not hold in future periods, of market conditions at this given moment and of historical data, which should not be used as guidance, in any way, of the future results. \*OTM : Out of the Money \*\*business days

# QIS - EQUITIES: THALIA

## BNP Paribas THALIA EU Index

BNPXTHEE Index | live since 27 June 2023 | EUR, ER

### Objective

- The Thalia strategy aims at providing a cost-efficient tail hedge solution that also delivers downside protection in lower-velocity shocks.

### Rationale

- Besides the cost of carry, long volatility tail hedging strategies tend to underperform in a scenario of low-velocity sell-offs, aka a « spot down, vol down » scenario.
- Thanks to its specifically adjusted delta hedging technique, Thalia is designed to seek to achieve solid performance during those low-velocity periods while keeping its tail hedging profile.

### Methodology

- Exposure to a long strip of 1y put options** (daily purchase).
- Strike range:** 70%-90%.
- Delta-hedged on a daily basis with a delta correction** in order to enhance protection level, especially in case of low-velocity shocks.
- Financed by synthetic daily sale of naked 1m puts**, with volatility indexed strikes and partial delta-hedge mechanism to reduce risk in case of quick and sharp drawdowns.
- Average ratio of 5.5v long vs 1x short.

### Versions

- BNP Paribas Thalia US Index**

BNPXTHUE Index | live since 20 Sep 2022 | USD, ER

**Carry optimised alternative:** modification of the ratio to put more weight on financing leg in order to neutralise the carry.

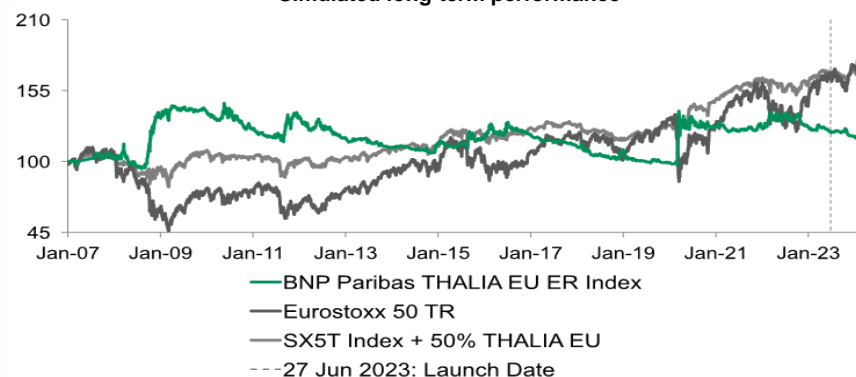
- BNP Paribas THALIA Neutral EU**

BNPXTHEN Index | live since 27 June 2023 | EUR, ER

- BNP Paribas THALIA Neutral US**

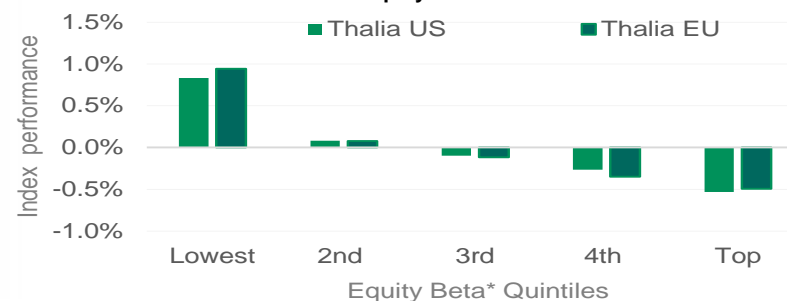
BNPXTHUN Index | live since 27 June 2023 | USD, ER

### Simulated long-term performance



Jan 07 - Apr 24	THALIA EU	Eurostoxx 50 TR	SX5T Index + 50% THALIA EU
Return p.a.	0.89%	3.83%	3.34%
Volatility	10.19%	22.22%	10.33%
Sharpe Ratio	0.09	0.17	0.32
Max Drawdown	-33.45%	-58.58%	-24.96%
Realized on	04 March 2020	09 March 2009	09 March 2009

### Index Return on Equity Quintiles: 20 bd returns



Sources: Bloomberg, BNP Paribas

Source: Bloomberg, BNP Paribas. Past or simulated performance is not indicative of future results. All levels shown for the BNP Paribas Indices are based on Hypothetical Past Performance. All Past Performance Data levels provided in the graph and table above are simulated and must be considered illustrative only. The presentation of hypothetical data reflects the deduction of fees and charges. These simulations are the result of estimates made by BNP Paribas at a given moment on the basis of the parameters selected by BNP Paribas, certain assumptions that may or may not hold in future periods, of market conditions at this given moment and of historical data, which should not be used as guidance, in any way, of the future results.

# QIS - Dispersion US Vega Flat High Conviction v3

## BNP Paribas Dispersion US Vega Flat High Conviction v3 ER Index

BNPXDUV4 Index | 16 Apr 2024 | USD, ER

### Objective

- The strategies aim at providing access to the well-known US equity volatility dispersion trade in a systematic way, while aiming at enhancing the carry/reactivity profile via fundamental\* and quantitative filters alongside intraday delta hedging for drawdown mitigation.

### Rationale

- The strategies offer diversification and are complementary to other defensive strategies.
- The 'High Conviction' stock selection aims at enhancing the performance of the dispersion trade.
- By construction, the trade benefits from both index and single stock flow imbalances.

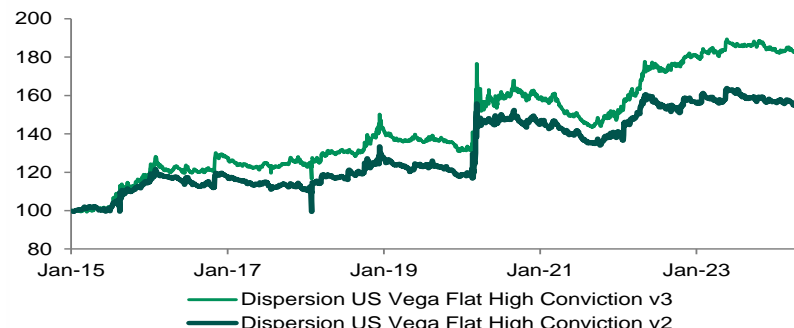
### Methodology

	BNPXDUV4 Index	BNPXDUV2 Index
	Dispersion US Vega Flat High Conviction v3	Dispersion US Vega Flat High Conviction v2
Universe	SPX vs Top 50	
Implementation	Vega Flat	
Option tenors	3 <sup>rd</sup> quarterly expiry	2 months
Instruments	4 delta-hedged puts, between -10% delta and ATM 4 delta-hedged calls, between ATM and 10% delta	
Stock delta hedging	daily, at the close	
SPX delta hedging	intraday, 5 times a day	
"High Conviction" weighting	Volatility Carry, Low Quality, Value	Volatility Carry
Vega Traded (p.a.)	6	7.5

### Versions:

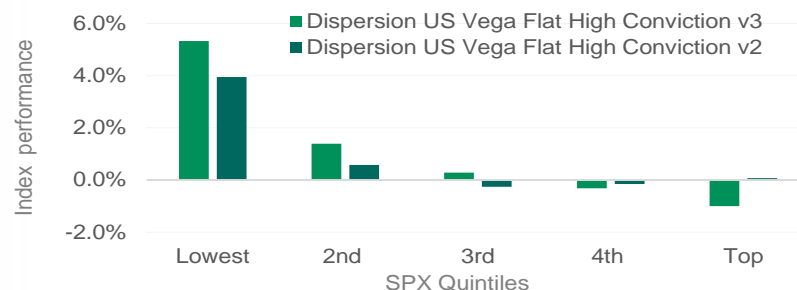
- BNP Paribas Dispersion US Vega Flat High Conviction v3 ER Index
- BNPXDUV2 Index | live since 16 Apr 2024 | USD, ER

### Simulated and Historical Long-term Performance



9 Jan 2015 – 24 May 2024	Dispersion US Vega Flat High Conviction v3	Dispersion US Vega Flat High Conviction v2
Return p.a.	6.78%	4.84%
Volatility	13.49%	13.43%
Sharpe Ratio	0.50	0.36
Max Drawdown	-18.85%	-18.37%
Realised on	09 Sep 2021	05 Feb 2018

### Index Return on Equity Quintiles: 20 bd returns



Sources : Bloomberg, BNP Paribas

Source: Bloomberg, BNP Paribas. Past or simulated performance is not indicative of future results. All levels shown for the BNP Paribas Indices are based on Hypothetical Past Performance. All Past Performance Data levels provided in the graph and table above are simulated and must be considered illustrative only. The presentation of hypothetical data reflects the deduction of fees and charges. These simulations are the result of estimates made by BNP Paribas at a given moment on the basis of the parameters selected by BNP Paribas, certain assumptions that may or may not hold in future periods, of market conditions at this given moment and of historical data, which should not be used as guidance, in any way, of the future results. \*fundamental filters apply to BNPXDUV4 Index only

# 10 Appendix

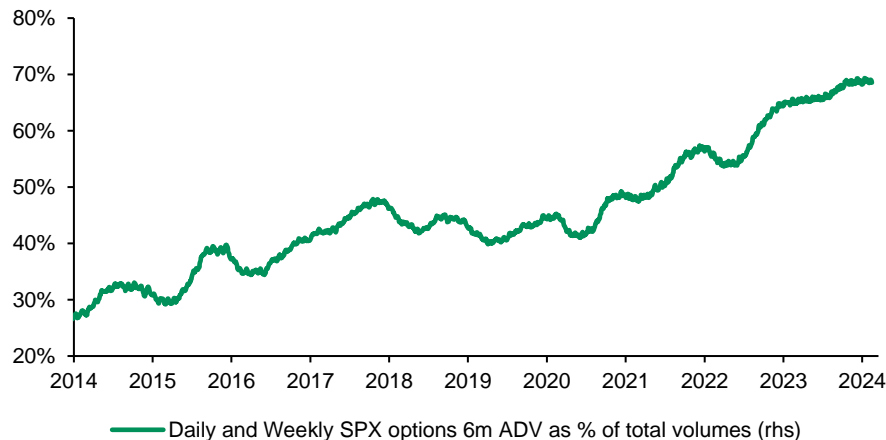


**BNP PARIBAS**

The bank for a changing world

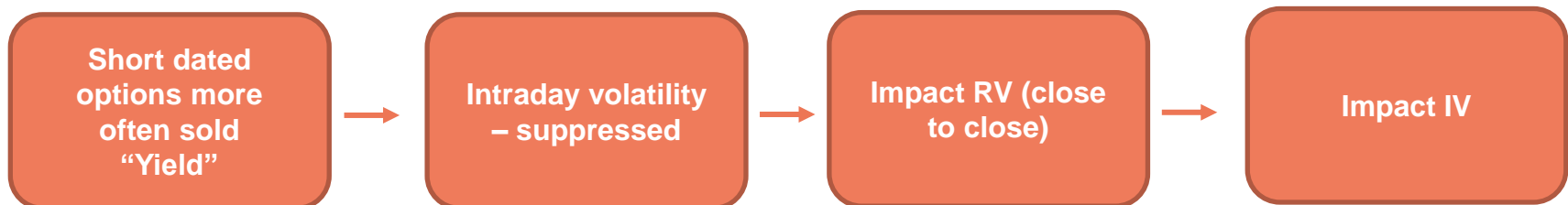
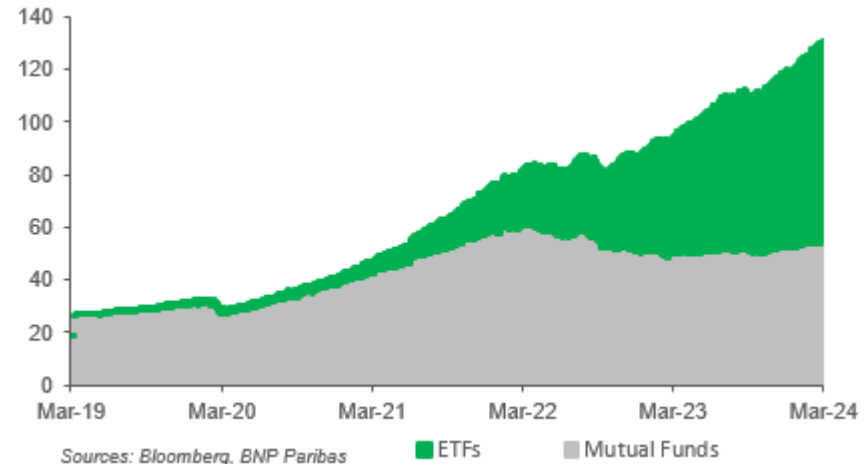
# Systematic vol selling: 0DTE + vol harvesting

Daily and weekly SPX options represent close to 70% of total volumes



Sources: Bloomberg, BNP Paribas

Derivatives vol selling funds AUM (ETFs and mutual funds)



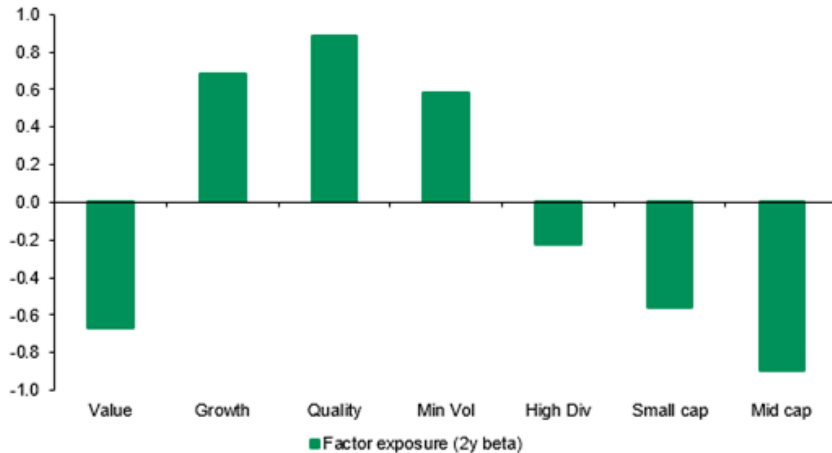
- There is never one factor that drives the market ... many contribute to it.
- However, when the “largest” market is traded:
  - 0/1DTE gross notional traded > 50% higher than S&P futures
  - Expansion of new Vol strategies
  - Impact on market dynamics (not direction but *velocity*)



## APPENDIX

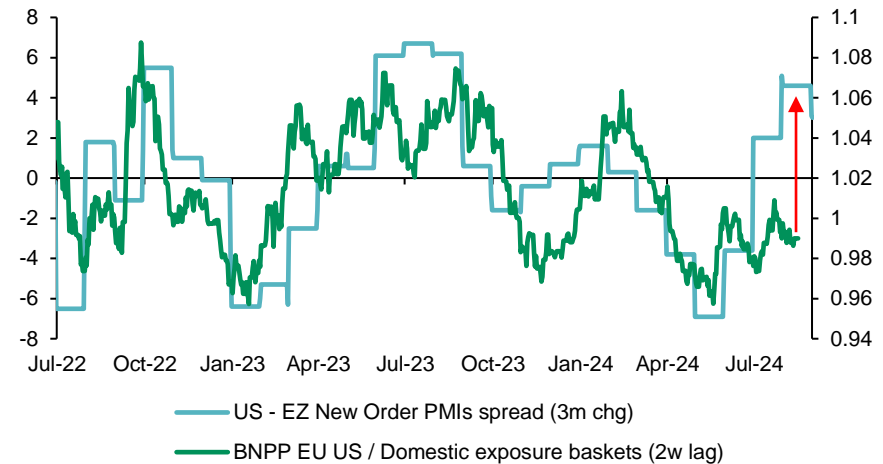
# Fading the H2 recovery via US exposure

BNPP EU US & Domestic exposure basket – factor exposure



Sources: Bloomberg, BNP Paribas. Past results are not indicative of future performance, which may be better or worse than prior results.

US versus EZ new order PMIs suggests upside ahead for US-exposed names



Sources: Bloomberg, BNP Paribas.

## Screening criteria

- **Universe:** Stoxx Europe 600 companies with above 10mn average daily volumes Change (%) traded.
- **BNPPEUSE:** Top 50 names with revenue exposure to the US.
- **BNPPEDOM:** Top 50 names with domestic revenue exposure.

BNPP EU US & Domestic exposure basket sector exposures

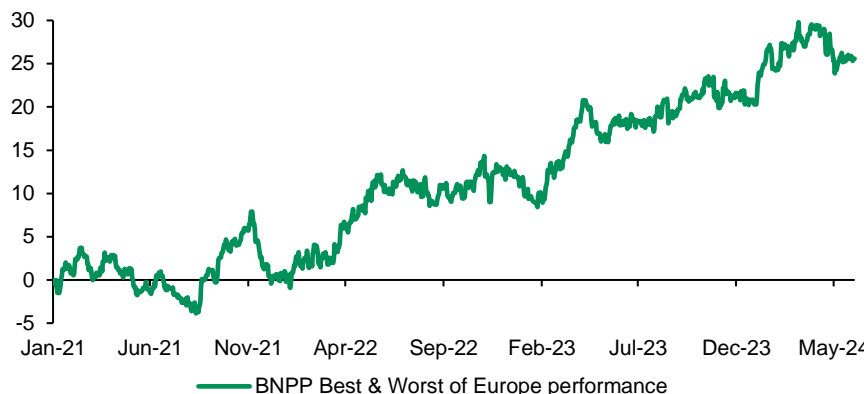
Sector	US exposure	EU exposure	Net
Health Care	33.99	1.12	32.88
Industrial Goods and Services	17.72	1.36	16.36
Media	11.93	0.00	11.93
Construction and Materials	5.92	0.00	5.92
Travel and Leisure	3.97	2.37	1.60
Telecommunications	4.21	3.25	0.96
Automobiles and Parts	1.54	1.06	0.47
Energy	3.81	3.67	0.14
Financial Services	4.19	4.13	0.06
Technology	1.48	2.03	-0.55
Personal Care, Drug and Grocery Stores	2.94	5.32	-2.38
Insurance	4.09	8.64	-4.56
Retail	0.00	5.70	-5.70
Utilities	2.33	8.75	-6.42
Consumer Products and Services	1.88	9.88	-8.01
Real Estate	0.00	12.35	-12.35
Banks	0.00	30.36	-30.36

Sources: Bloomberg, BNP Paribas.



# Best and Worst of Europe L/S (BNPPBOE1 / BNPPWOE1)

BNPP Best and Worst of Europe L/S baskets performance – positive trend



Sources: Bloomberg, BNP Paribas. Past results are not indicative of future performance, which may be better or worse than prior results.

## Screening criteria

- Thematic:** The Best of Europe basket targets quality names in addition to companies that offer strong shareholder return, exposure to the AI trend and to the defence subsector given the rise of geopolitical tensions. The Worst of Europe basket, on the other hand, includes companies that would be most exposed to Donald Trump winning the US presidential election, notably China-exposed names, potential losers in the event of either escalating trade tensions or IRA reversal, and leveraged companies that would be under pressure in a higher-for-longer environment.
- Weighting:** The baskets are 50% free-float market cap and 50% volume weighted. We cap the maximum weight to 4% to reduce congestion risk and remove any weight below 0.5%.
- Sectors:** We omit Banks from the baskets, as rates remain the key driver for the sector.

Sector exposure

ICB Supersector	Basket Long	Basket Short	Net Long-Short
Technology	20.2%	0.0%	20.2%
Health Care	23.8%	8.2%	15.6%
Energy	11.3%	0.0%	11.3%
Automobiles and Parts	5.3%	1.3%	4.0%
Personal Care, Drug and Grocery Stores	3.6%	0.0%	3.6%
Utilities	5.5%	3.7%	1.8%
Telecommunications	2.8%	1.5%	1.3%
Financial Services	1.1%	0.0%	1.1%
Banks	0.0%	0.0%	0.0%
Insurance	1.2%	2.0%	-0.8%
Travel and Leisure	0.0%	0.9%	-0.9%
Retail	0.0%	1.1%	-1.1%
Real Estate	0.0%	2.2%	-2.2%
Media	1.8%	4.0%	-2.2%
Consumer Products and Services	7.1%	11.2%	-4.0%
Construction and Materials	0.0%	6.9%	-6.9%
Industrial Goods and Services	16.3%	25.3%	-9.0%
Basic Resources	0.0%	9.3%	-9.3%
Food, Beverage and Tobacco	0.0%	9.6%	-9.6%
Chemicals	0.0%	12.8%	-12.8%

Sources: Bloomberg, BNP Paribas.

BNPP Best and Worst of Europe L/S baskets - Exposure to each theme

Long	Weight*	Short	Weight*
Good Quality	46.8%	IRA Reversal	25.5%
Semis	16.2%	China Exposure	42.3%
Quality Div	33.6%	Trade War	39.0%
Defence	10.0%	Leverage Short	27.9%

Sources: Bloomberg, BNP Paribas. Past results are not indicative of future performance, which may be better or worse than prior results. Baskets are for reference purposes only. Baskets can be obtained by an OTC derivative by appropriately sophisticated institutions.



# Quality bias: Good vs Bad Quality (BNPPEQL4 vs BNPPEQS4)

BNPP EU Good vs Bad Quality baskets performance – positive trend



Sources: Bloomberg, BNP Paribas. Past results are not indicative of future performance, which may be better or worse than prior results.

BNPP EU Good versus Bad Quality baskets – sector exposure

ICB Supersector	Basket Long	Basket Short	Net Long-Short
Health Care	30.0%	4.0%	26.0%
Technology	12.0%	2.0%	10.0%
Consumer Prod and Serv	12.0%	6.0%	6.0%
Energy	4.0%	0.0%	4.0%
Food, Beverage and Tobacco	4.0%	0.0%	4.0%
Real Estate	0.0%	0.0%	0.0%
Financial Services	0.0%	0.0%	0.0%
Insurance	2.0%	2.0%	0.0%
Banks	0.0%	0.0%	0.0%
Basic Resources	2.0%	2.0%	0.0%
Media	2.0%	2.0%	0.0%
Retail	0.0%	2.0%	-2.0%
Telecommunications	2.0%	4.0%	-2.0%
Industrial Goods and Services	20.0%	24.0%	-4.0%
Automobiles and Parts	2.0%	6.0%	-4.0%
Utilities	4.0%	8.0%	-4.0%
Chemicals	2.0%	8.0%	-6.0%
Travel and Leisure	0.0%	8.0%	-8.0%
Personal Care	2.0%	10.0%	-8.0%
Construction and Materials	0.0%	12.0%	-12.0%

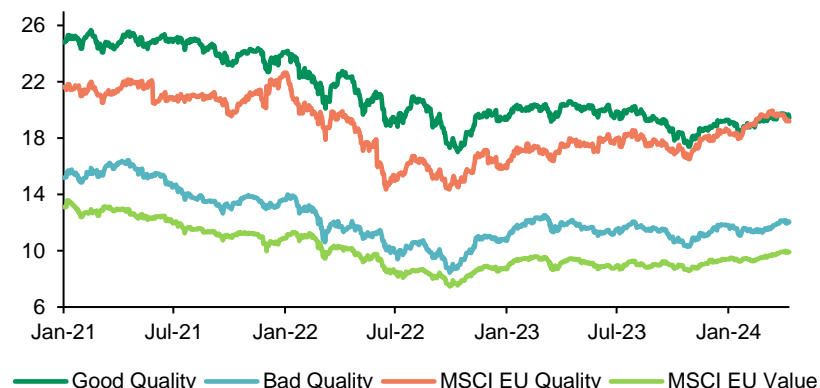
Sources: Bloomberg, BNP Paribas.

## Screening criteria

### Good versus Bad Quality baskets (50 names each):

- High (resp. low) 2024E EBIT margins and a high (resp. low) 2024E / 2023 EPS ratio.
- Low (resp. high) leverage – calculated by taking the average rank of both Net Debt / EBITDA and Net Debt / Market Cap.
- Low (resp. high) ROE standard deviation.
- High (resp. low) net income / employee ratio.

BNPP Good and Bad Quality baskets – 12m fwd PE

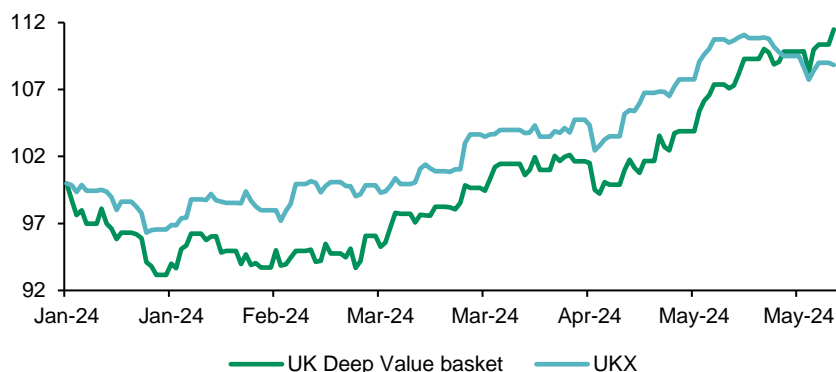


Sources: Bloomberg, BNP Paribas. Past results are not indicative of future performance, which may be better or worse than prior results. Baskets are for reference purposes only. Baskets can be obtained by an OTC derivative by appropriately sophisticated institutions.



# UK Value: UK Deep Value basket (BNPPUKDV)

UK Deep Value basket performance



Sources: Bloomberg, BNP Paribas. Past results are not indicative of future performance, which may be better or worse than prior results.

## Screening criteria

- **Universe:** UK Midcap and Small cap bias via FTSE All Share except for the names in FTSE100.
- **Liquidity:** Keep names with ADV above 1.5mn GBP.
- **Screening:** Based on the average percentile rank of the following criteria
  - **Leverage:** Low net debt over market cap.
  - **Deep Value:** Low 12m fwd price to earnings.
  - **Valuation:** Low discount of the PE to its 15y median.
  - **Quality:** High Ebit margins.

Sector exposure

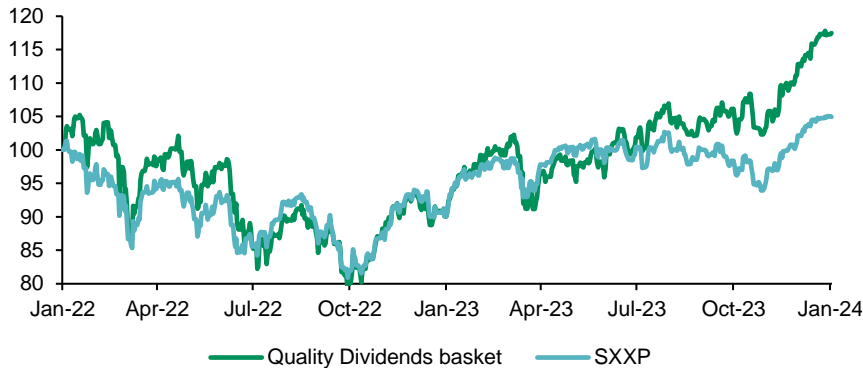
Sector	Basket	FTSE 250	Net
Travel and Leisure	12.0%	3.5%	8.5%
Energy	6.0%	1.9%	4.1%
Construction and Materials	6.0%	2.9%	3.1%
Technology	6.0%	3.7%	2.3%
Media	4.0%	1.8%	2.2%
Basic Resources	4.0%	2.0%	2.0%
Real Estate	12.0%	10.2%	1.8%
Insurance	4.0%	2.8%	1.2%
Telecommunications	2.0%	1.0%	1.0%
Utilities	2.0%	1.1%	0.9%
Food, Beverage and Tobacco	4.0%	3.5%	0.5%
Chemicals	2.0%	1.7%	0.3%
Automobiles and Parts	0.0%	0.6%	-0.6%
Consumer Products and Services	4.0%	4.7%	-0.7%
Banks	2.0%	2.7%	-0.7%
Personal Care, Drug and Grocery Stores	0.0%	1.0%	-1.0%
Health Care	0.0%	1.3%	-1.3%
Industrial Goods and Services	12.0%	13.4%	-1.4%
Retail	0.0%	1.7%	-1.7%
Financial Services	18.0%	38.5%	-20.5%

Sources: Bloomberg, BNP Paribas. Past results are not indicative of future performance, which may be better or worse than prior results. Baskets are for reference purposes only. Baskets can be obtained by an OTC derivative by appropriately sophisticated institutions.



# Shareholder return: Quality dividends (BNPPEUQD)

Quality dividends basket performance



Sources: Bloomberg, BNP Paribas. Past results are not indicative of future performance, which may be better or worse than prior results.

## Screening criteria

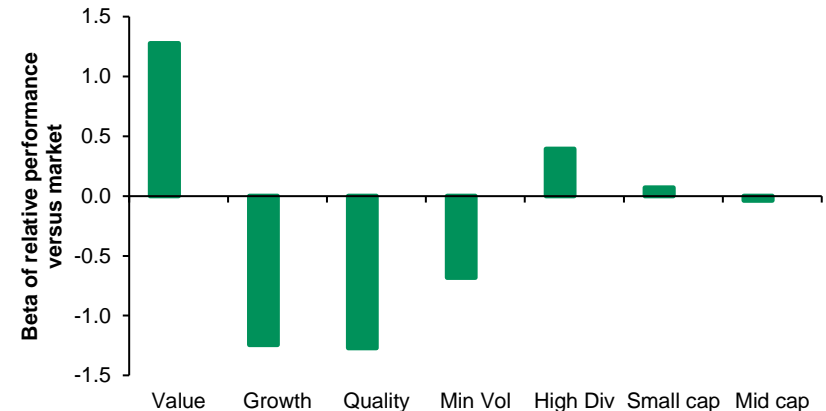
- **Earnings:** We select companies with strong earnings momentum
- **Balance Sheet:** Strong balance sheet based on net debt/EBITDA and net debt/equity
- **Margins:** Strong profit margins with ROE and EBIT margin.
- **Cash:** High free cash flow yield and low payout ratios.
- **Valuations:** 12m fwd PE below 20.
- **Dividends:** Dividend yield above 4%. Sector weighting capped at 25%
- **Liquidity:** Average daily volume above EUR10m.

Sector exposure

ICB supersector	Basket	SXXP	Net
Automobiles and Parts	19.3%	2.5%	16.8%
Energy	22.9%	6.3%	16.5%
Banks	19.3%	8.9%	10.4%
Basic Resources	5.7%	2.5%	3.2%
Utilities	7.0%	4.0%	3.0%
Telecommunications	4.4%	2.6%	1.8%
Media	1.4%	1.8%	-0.5%
Personal Care, Drug and Grocery Stores	2.3%	2.9%	-0.6%
Travel and Leisure	0.6%	1.2%	-0.6%
Retail	0.0%	0.9%	-0.9%
Financial Services	2.6%	3.7%	-1.1%
Real Estate	0.0%	1.4%	-1.4%
Construction and Materials	1.2%	3.8%	-2.6%
Chemicals	0.0%	2.6%	-2.6%
Insurance	1.2%	5.3%	-4.1%
Consumer Products and Services	1.3%	6.3%	-5.0%
Food, Beverage and Tobacco	0.0%	7.0%	-7.0%
Technology	0.0%	7.3%	-7.3%
Industrial Goods and Services	4.2%	13.1%	-8.8%
Health Care	6.5%	15.7%	-9.2%

Sources: Bloomberg, BNP Paribas.

Factor exposure (2y)

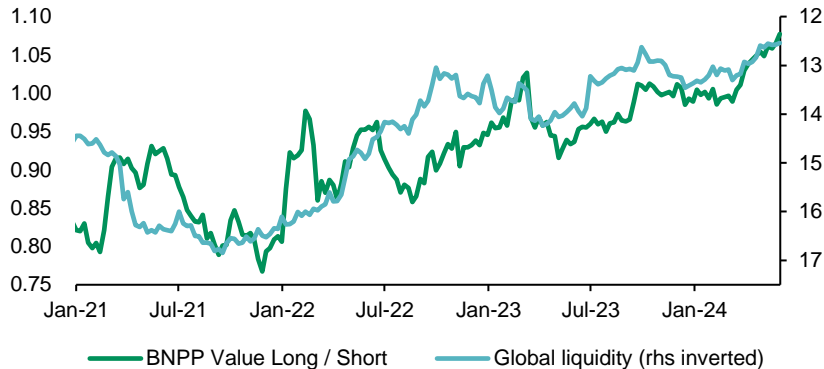


Sources: Bloomberg, BNP Paribas. Past results are not indicative of future performance, which may be better or worse than prior results. Baskets are for reference purposes only. Baskets can be obtained by an OTC derivative by appropriately sophisticated institutions.



# Declining liquidity: Value vs anti-value (BNPPEUVL/BNPPEUVS)

Domestic Stars basket trades near lows to large-caps



Sources: Bloomberg, BNP Paribas. Past results are not indicative of future performance, which may be better or worse than prior results.

Sector exposure

ICB supersector	Long	Short	Net
Insurance	15.0%	0.0%	15.0%
Automobiles and Parts	13.3%	1.7%	11.7%
Banks	5.0%	0.0%	5.0%
Construction and Materials	6.7%	3.3%	3.3%
Retail	3.3%	0.0%	3.3%
Industrial Goods and Services	15.0%	11.7%	3.3%
Basic Resources	8.3%	5.0%	3.3%
Telecommunications	3.3%	1.7%	1.7%
Financial Services	6.7%	5.0%	1.7%
Media	3.3%	3.3%	0.0%
Personal Care, Drug and Grocery Stores	1.7%	1.7%	0.0%
Utilities	5.0%	6.7%	-1.7%
Real Estate	1.7%	3.3%	-1.7%
Travel and Leisure	5.0%	8.3%	-3.3%
Consumer Products and Services	3.3%	6.7%	-3.3%
Technology	0.0%	6.7%	-6.7%
Chemicals	1.7%	10.0%	-8.3%
Food, Beverage and Tobacco	0.0%	10.0%	-10.0%
Health Care	1.7%	15.0%	-13.3%

Sources: Bloomberg, BNP Paribas.

## Screening criteria

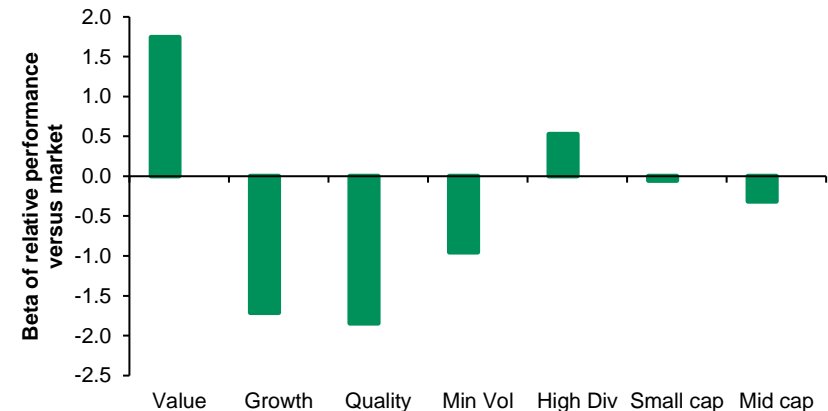
### BNPP EU Value Long (BNPPEUVL):

- 60 names selected based on: low P/E based on 2024 earnings forecasts, high FCF yields, low leverage and positive correlations with PMIs.

### BNPP EU Value Long (BNPPEUVS):

- 60 names selected based on: high P/E based on 2024 earnings forecasts, low FCF yields, high leverage and negative correlations with PMIs.

Factor exposure (2y)

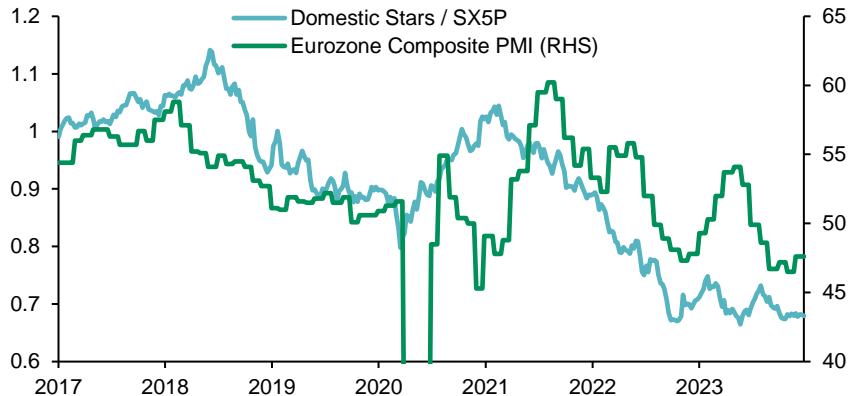


Sources: Bloomberg, BNP Paribas. Past results are not indicative of future performance, which may be better or worse than prior results. Baskets are for reference purposes only. Baskets can be obtained by an OTC derivative by appropriately sophisticated institutions.



# PMI rebound: Domestic Stars basket (BNPPSMCQ)

Domestic Stars basket trades near lows to large caps



Sources: Bloomberg, BNP Paribas. Past results are not indicative of future performance, which may be better or worse than prior results.

## Screening criteria

We selected 49 liquid stocks from the eurozone small- and mid-cap space to create the Domestic Stars basket.

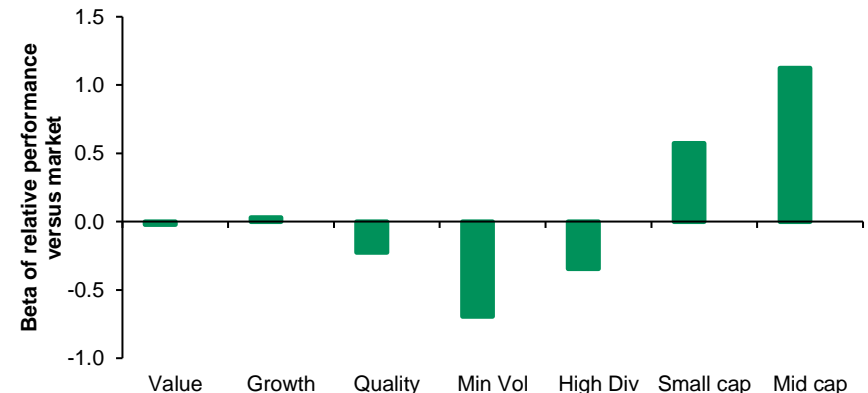
- **Universe:** EURO STOXX Small Index and EURO STOXX Mid Index
- **Analyst rating:** Remove names with an underperform rating from BNP Paribas Exane analysts
- **Liquidity:** Average daily volume above EUR10mn
- **Sector criteria:** Remove Financials and Real Estate stocks
- **Leverage:** Keep names with a net debt to EBITDA ratio below 1
- **Valuation:** Keep names where the 10y percentile of the 12m fwd PE is below 25%

Sector exposure

ICB supersector	Basket	SXXP	Net
Industrial Goods and Services	24.5%	13.1%	11.4%
Consumer Products and Services	12.2%	6.3%	5.9%
Retail	6.1%	0.9%	5.2%
Energy	10.2%	6.3%	3.9%
Construction and Materials	6.1%	3.8%	2.3%
Utilities	6.1%	4.0%	2.1%
Automobiles and Parts	4.1%	2.5%	1.6%
Personal Care, Drug and Grocery Stores	4.1%	2.9%	1.2%
Real Estate	2.0%	1.4%	0.6%
Media	2.0%	1.8%	0.2%
Basic Resources	2.0%	2.5%	-0.5%
Telecommunications	2.0%	2.6%	-0.6%
Chemicals	2.0%	2.6%	-0.6%
Travel and Leisure	0.0%	1.2%	-1.2%
Technology	6.1%	7.3%	-1.2%
Food, Beverage and Tobacco	4.1%	7.0%	-2.9%
Financial Services	0.0%	3.7%	-3.7%
Insurance	0.0%	5.3%	-5.3%
Banks	0.0%	8.9%	-8.9%
Health Care	6.1%	15.7%	-9.6%

Sources: Bloomberg, BNP Paribas.

Factor exposure (2y)

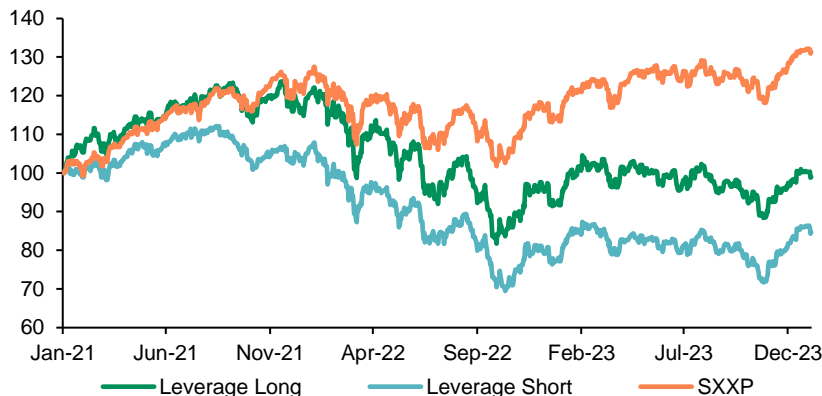


Sources: Bloomberg, BNP Paribas. Past results are not indicative of future performance, which may be better or worse than prior results. Baskets are for reference purposes only. Baskets can be obtained by an OTC derivative by appropriately sophisticated institutions.



# Refinancing wall: Leverage long/short (BNPPSNLL/BNPPSNLS)

Baskets' performance



Sources: Bloomberg, BNP Paribas. Past results are not indicative of future performance, which may be better or worse than prior results.

## Screening criteria

**Leverage short (40 names):** We remove Bank names

- **Leverage:** Net debt to EBITDA above 1, or net debt to equity shareholder above 50%, in addition to the debt expiring over the next two years above 15% of total debt
- **Profit Margins:** Below 8%
- **Ranking:** High net debt to EBITDA: (Net debt maturing in 2024 and 2025 minus cash) / EBITDA

**Leverage long (36 names):**

- **Leverage:** Net debt to equity shareholder above 50%
- **Ranking:** Low net debt to EBITDA: (Net debt maturing in 2024 and 2025 minus cash) / EBITDA
- **Sector:** We select companies to create a sector-neutral long/short basket.

Leverage: Net debt expiring in the next two years minus cash over Ebitda

	Net Debt * / EBITDA	
	Long	Short
Mean	-1.72	0.76
Median	-1	0.47
Min	-19.85	0.2
Max	0.11	2.59

\*Net debt is calculated as debt maturing in the next two years minus cash

Sources: Bloomberg, BNP Paribas. Past results are not indicative of future performance, which may be better or worse than prior results.

Leverage long/short sector exposure: Sector neutral

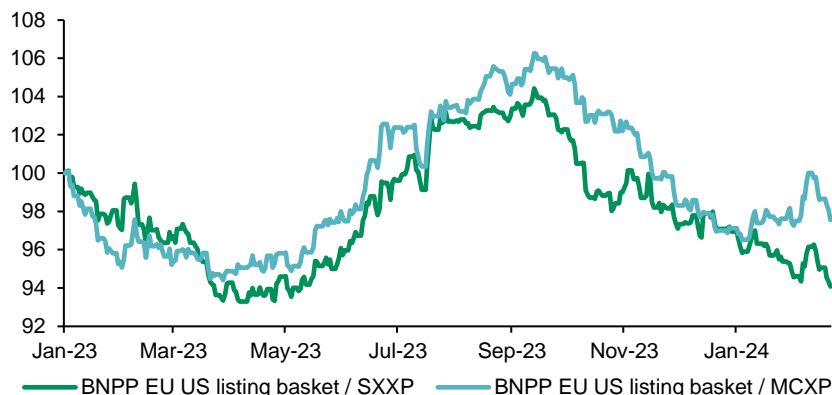
ICB supersector	Leverage long	Leverage short
Industrial Goods and Services	12.5%	12.5%
Telecommunications	12.5%	12.5%
Real Estate	10.0%	10.0%
Health Care	10.0%	10.0%
Chemicals	7.5%	7.5%
Construction and Materials	7.5%	7.5%
Technology	5.0%	5.0%
Food, Beverage and Tobacco	5.0%	5.0%
Consumer Products and Services	5.0%	5.0%
Automobiles and Parts	5.0%	5.0%
Basic Resources	5.0%	5.0%
Utilities	2.5%	2.5%
Energy	2.5%	2.5%
Media	2.5%	2.5%
Financial Services	2.5%	2.5%
Retail	2.5%	2.5%
Travel and Leisure	2.5%	2.5%

Sources: Bloomberg, BNP Paribas.



# EU US listing basket (BNPPEUSL)

BNPP EU US listing basket - screening criteria



Sources: Bloomberg, BNP Paribas. Past results are not indicative of future performance, which may be better or worse than prior results. Baskets are for reference purposes only. Baskets can be obtained by an OTC derivative by appropriately sophisticated institutions.

## Screening criteria

### BNPP EU US listing basket (35 names):

- **Universe:** STOXX Europe Total Market (BKXP) with above EUR5mn average daily volumes
- **Fundamentals reporting:** Includes names that report in USD where more than 40% of their active investors are North American
- **Revenue:** Includes names with North America revenue exposure above 50%
- **Additional names:** Includes names based on a score using (1) high North America revenue exposure, (2) a high percentage of active investors that are North American, and (3) trading at a discount to US peers (based on the 12m fwd PE)
- **Sectors:** Avoids names in sectors with strategic importance where political hurdles to a shift of listing to the US would be too high (Banks, Utilities, Defence)

BNPP EU US listing basket - screening criteria

	North America revenue exposure (%)	Percentage of active investors that are North American (%)	12m fwd PE versus US peers (%)
<b>Basket (Median)</b>	50.8%	43.5%	-24.4%
<b>Universe - BKXP (Median)</b>	15.3%	17.8%	-27.1%

Sources: Bloomberg, BNP Paribas. Past results are not indicative of future performance, which may be better or worse than prior results. Baskets are for reference purposes only. Baskets can be obtained by an OTC derivative by appropriately sophisticated institutions.

BNPP EU US listing basket – sector exposure

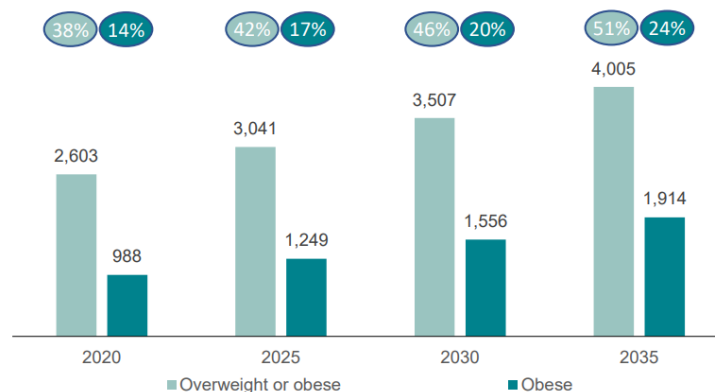
Sector	Basket	SXXP	Net
Media	11.4%	1.9%	9.5%
Travel and Leisure	8.6%	1.3%	7.3%
Construction and Materials	8.6%	3.8%	4.7%
Health Care	20.0%	15.3%	4.7%
Automobiles and Parts	5.7%	2.6%	3.1%
Personal Care, Drug and Grocery Stores	5.7%	2.9%	2.9%
Energy	8.6%	5.8%	2.7%
Consumer Products and Services	8.6%	6.9%	1.7%
Retail	0.0%	0.9%	-0.9%
Food, Beverage and Tobacco	5.7%	6.9%	-1.2%
Real Estate	0.0%	1.3%	-1.3%
Basic Resources	0.0%	2.2%	-2.2%
Telecommunications	0.0%	2.5%	-2.5%
Insurance	2.9%	5.3%	-2.5%
Technology	5.7%	8.3%	-2.6%
Chemicals	0.0%	2.6%	-2.6%
Utilities	0.0%	3.5%	-3.5%
Financial Services	0.0%	3.7%	-3.7%
Industrial Goods and Services	8.6%	13.5%	-5.0%
Banks	0.0%	8.6%	-8.6%

Sources: Bloomberg, BNP Paribas.

# GLP1 Winners vs Losers - BNPGLP1W / BNPGLP1L

## Almost 2bn people will be obese by 2035

Number of overweight/obese people globally in millions and prevalence in % terms



Source: BNP Paribas Exane, World Obesity Federation

## Estimated impact on total US adult lifetime calorie intake

Total lifetime adult calorie reduction in the USA for different obese/severely obese participation levels

Participation Rate	Total calorie reduction	Life expectancy gain	Net impact
10%	-0.6%	0.3%	-0.4%
20%	-1.2%	0.5%	-0.7%
30%	-1.8%	0.8%	-1.1%
40%	-2.4%	1.0%	-1.4%
50%	-3.0%	1.3%	-1.8%
60%	-3.7%	1.5%	-2.1%
70%	-4.3%	1.8%	-2.5%
80%	-4.9%	2.1%	-2.8%
90%	-5.5%	2.3%	-3.2%
100%	-6.1%	2.6%	-3.5%

Source: BNP Paribas Exane estimates

Sources: BNP Paribas Exane estimates





# GLP1 Winners vs Losers - BNPPGLP1W / BNPPGLP1L

Stocks most positively/negatively impacted by the increased use of obesity drugs

Name	Ticker	No of Stocks	1m	3m	YTD	1Y
BNPP GLP1 Winners	BNPPGLP1W	17	11.5%	22.3%	14.5%	27.8%
BNPP GLP1 Losers	BNPPGLP1L	28	4.0%	4.3%	2.8%	-5.5%

## 1Y Basket Performance



### Relative Country Exposure

United States	17.2%
Germany	10.3%
Denmark	3.1%
Switzerland	1.6%
France	-0.4%

### Top 5 Stock Exposure

VKTX UR Equity	15.1%
LLY UN Equity	6.6%
NOVOB DC Equity	6.6%
CL UN Equity	5.9%
BEI GY Equity	5.7%

### Relative Sector Exposure

Health Care	47.3%
Information Technology	
Financials	
Energy	
Real Estate	
Utilities	
Communication Services	
Industrials	
Materials	-4.3%
Consumer Discretionary	12.0%
Consumer Staples	31.0%

Sources: BNP Paribas, Bloomberg L.P.

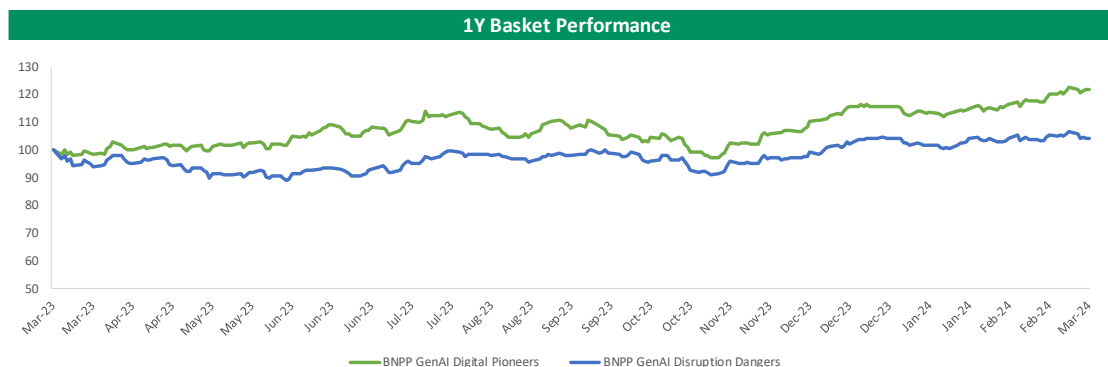
Performance data as of 21-Feb-24

Sources: BNP Paribas, Bloomberg

# GenAI Digital Pioneers vs Disruption Dangers – BNPPAIDP / BNPPAIDD

Stocks that we think are best positioned to leverage new developments in AI vs those that are less well positioned

Name	Ticker	No of Stocks	1m	3m	YTD	1Y
BNPP GenAI Digital Pioneers	BNPPAIDP	55	4.7%	7.8%	5.3%	21.9%
BNPP GenAI Disruption Dangers	BNPPAIDD	26	-0.2%	2.4%	0.0%	4.3%



Relative Country Exposure	
United States	14.5%
Germany	5.9%
Switzerland	5.2%
Belgium	3.6%
Sweden	2.2%
Top 5 Stock Exposure	
CVNA UN Equity	4.4%
DECK UN Equity	2.3%
TRU UN Equity	2.2%
RL UN Equity	2.2%
EQT SS Equity	2.2%

Relative Sector Exposure	
Health Care	14.4%
Information Technology	5.8%
Real Estate	5.7%
Financials	1.4%
Industrials	0.2%
Energy	
Utilities	
Consumer Staples	0.2%
Consumer Discretionary	4.1%
Communication Services	8.1%
Materials	5.2%

Sources: BNP Paribas, Bloomberg L.P.

Performance data as of 08-Mar-24

Sources: BNP Paribas, Bloomberg

# KPI Tables

Autos KPI table

kpi	Ebit margin	ASP (YoY)	Operating Income	Units sold (YoY)	pre-tax margin
Next Q momo	-0.3%	-0.6%	-4.3%	-1.6%	-0.2%
Last Q rank	4	1	4	5	4
Next Q rank	3	3	3	3	3
Last print	12.4%	1.5%	-16.4%	-4.0%	12.1%
E next Q	11.1%	-0.9%	-6.8%	0.4%	11.3%
E next Q+1	11.3%	-0.6%	-2.1%	1.7%	11.4%

Sources: Visible Alpha, BNP Paribas

Machinery KPI table

kpi	Organic growth (%)	Ebit margin	Net order value	Net_order_value (Org Impact %)	Operating Income
Next Q momo	-0.0%	-0.1%	-0.0%	0.2%	-0.6%
Last Q rank	5	3	1	2	4
Next Q rank	1	4	2	1	4
Last print	14.6%	15.5%	4.1%	1.8%	5.1%
E next Q	25.9%	15.7%	3.8%	4.4%	4.5%
E next Q+1	22.2%	16.0%	2.9%	4.6%	4.0%

Sources: Visible Alpha, BNP Paribas

Apparel KPI table

kpi	Organic growth (%)	Revenue (YoY)	Ebit margin	Net sales per store	Operating Income
Next Q momo	-0.3%	-0.5%	-0.5%	-0.6%	-5.1%
Last Q rank	2	2	2	4	2
Next Q rank	1	1	4	5	4
Last print	6.3%	5.7%	11.7%	1.9%	17.7%
E next Q	6.9%	6.7%	12.9%	-0.7%	12.7%
E next Q+1	7.8%	7.6%	10.6%	-0.5%	19.3%

Sources: Visible Alpha, BNP Paribas

Luxury Clothing KPI table

kpi	Organic growth (%)	Revenue (YoY)	Ebit margin	Asia revnue	EU Revenue (YoY)	US Revenue (YoY)
Next Q momo	-1.6%	-1.7%	-0.1%	-2.0%	-0.4%	0.9%
Last Q rank	5	5	5	5	3	2
Next Q rank	5	3	5	3	4	1
Last print	1.2%	-2.8%	13.2%	-9.4%	3.4%	0.7%
E next Q	0.5%	-0.8%	14.1%	-3.2%	2.3%	5.6%
E next Q+1	6.1%	5.9%	19.7%	3.3%	5.6%	8.0%

Sources: Visible Alpha, BNP Paribas

Wines &amp; Spirits KPI table

kpi	Organic growth (%)	Revenue (YoY)	Ebit margin	Operating Income
Next Q momo	-3.1%	-3.3%	-0.4%	-
Last Q rank	2	1	4	2
Next Q rank	2	2	3	3
Last print	1.3%	-0.3%	23.9%	-1.1%
E next Q	0.6%	-1.4%	27.8%	-2.7%
E next Q+1	2.0%	0.4%	25.9%	-2.7%

Sources: Visible Alpha, BNP Paribas

Beverages Beers KPI table

kpi	Organic growth (%)	Revenue (YoY)	Ebit margin	ASIA Revenue (YoY)	Operating Income	Sales Volume
Next Q momo	-0.8%	-1.5%	0.0%	-1.0%	-1.4%	-0.8%
Last Q rank	5	2	1	3	1	2
Next Q rank	4	4	2	2	3	2
Last print	2.8%	1.1%	18.6%	-6.0%	9.4%	-1.7%
E next Q	4.9%	-1.7%	19.0%	-1.9%	1.4%	0.5%
E next Q+1	5.2%	2.3%	18.4%	2.8%	6.8%	1.3%

Sources: Visible Alpha, BNP Paribas

## KPI Tables

Semis KPI table

kpi	Revenue (YoY)	Ebit margin	ASP	Bookings units	Days inventory	Operating Income	Shipments
Next Q momo	-3.2%	-1.2%	9.2%	3.2%	2.6%	-9.2%	-2.7%
Last Q rank	4	5	1	1	3	4	4
Next Q rank	3	3	1	2	5	3	3
Last print	-12.1%	24.7%	26.5%	57.2%	21.1%	-31.4%	-11.5%
E next Q	-5.0%	25.3%	51.4%	27.4%	-3.2%	-22.7%	-4.9%
E next Q+1	9.0%	27.5%	-14.4%	24.0%	-4.4%	6.7%	2.8%

Sources: Visible Alpha, BNP Paribas

Airlines KPI table

kpi	Ebit margin	Available seats miles	Cost per ASM	Load factor	Operating Income	RPK	Revenue (YoY) per ASM
Next Q momo	-1.1%	-0.2%	0.6%	-0.1%	-8.4%	-0.4%	-1.3%
Last Q rank	5	4	3	4	4	5	4
Next Q rank	3	5	3	2	3	5	3
Last print	9.3%	7.7%	4.4%	88.1%	-22.1%	7.6%	-0.9%
E next Q	19.4%	6.5%	3.5%	90.6%	-3.1%	6.9%	0.7%
E next Q+1	1.8%	5.9%	-19.2%	86.2%	85.8%	6.5%	-0.1%

Sources: Visible Alpha, BNP Paribas

Electrical equipment KPI table

kpi	Organic growth (%)	Revenue (YoY)	Ebit margin	Days inventory	Net Order Value	Operating Income
Next Q momo	-0.1%	0.7%	0.0%	-0.5%	0.4%	0.2%
Last Q rank	3	1	2	5	2	2
Next Q rank	4	1	1	5	1	3
Last print	4.1%	3.8%	13.7%	-3.5%	7.9%	21.5%
E next Q	3.9%	4.2%	13.6%	-5.8%	8.5%	8.1%
E next Q+1	5.3%	6.2%	13.7%	-2.1%	8.2%	5.6%

Sources: Visible Alpha, BNP Paribas

Renewables KPI table

kpi	Organic growth (%)	Revenue (YoY)	Ebit margin	Days inventory	Operating Income	Orders
Next Q momo	1.4%	2.2%	-0.2%	-2.7%	43.3%	2.0%
Last Q rank	1	1	2	4	2	4
Next Q rank	1	1	4	5	4	3
Last print	13.7%	11.2%	-1.6%	-0.5%	-91.2%	-12.9%
E next Q	17.4%	16.5%	2.4%	-10.9%	-148.8%	-12.9%
E next Q+1	17.0%	13.2%	4.6%	-11.4%	427.6%	-25.9%

Sources: Visible Alpha, BNP Paribas

Heavy materials KPI table

kpi	Organic growth (%)	Revenue (YoY)	Ebit margin	Aggregates Volume sold	Cement Volume sold	Days Inventory
Next Q momo	-0.6%	-0.2%	-0.2%	-5.9%	-7.9%	-
Last Q rank	4	2	3	2	1	2
Next Q rank	3	1	4	1	1	5
Last print	-1.0%	-0.8%	20.4%	-5.4%	-4.8%	6.1%
E next Q	2.7%	5.3%	21.0%	-2.3%	-3.3%	-3.9%
E next Q+1	3.9%	4.4%	16.6%	-3.1%	-4.9%	-3.9%

Sources: Visible Alpha, BNP Paribas

Light materials KPI table

kpi	Organic growth (%)	Revenue (YoY)	Ebit margin	Days inventory	Operating Income	price impact (growth %)	volume impact (growth %)
Next Q momo	-1.0%	-0.2%	-	-	-	-0.3%	-0.7%
Last Q rank	4	1	4	4	4	4	1
Next Q rank	1	1	3	1	5	3	1
Last print	-2.9%	-1.5%	13.0%	-6.2%	5.6%	-0.6%	-2.3%
E next Q	-0.9%	1.9%	13.6%	0.1%	0.7%	-0.6%	-0.3%
E next Q+1	0.5%	2.1%	13.6%	0.1%	0.7%	-0.4%	0.3%

Sources: Visible Alpha, BNP Paribas



# KPI Tables

## Staples food KPI table

kpi	Organic growth (%)	Revenue (YoY)	Ebit margin	Operating Income	Price growth	volume growth
Next Q momo	-0.2%	-0.6%	-	-	-0.6%	0.4%
Last Q rank	4	5	2	4	5	1
Next Q rank	3	1	3	3	4	1
Last print	3.3%	-1.4%	14.9%	1.8%	0.9%	2.3%
E next Q	4.1%	2.3%	15.3%	2.1%	1.5%	2.6%
E next Q+1	4.6%	2.2%	15.3%	2.1%	1.4%	3.1%

Sources: Visible Alpha, BNP Paribas

## Staples household KPI table

kpi	Organic growth (%)	Revenue (YoY)	Ebit margin	Operating Income	Price growth (%)	Volume growth (%)
Next Q momo	-0.8%	-1.4%	-	-	-0.2%	-0.9%
Last Q rank	5	1	2	2	5	1
Next Q rank	4	2	1	3	5	1
Last print	3.9%	3.4%	19.0%	11.0%	1.6%	1.1%
E next Q	4.3%	3.3%	16.9%	8.7%	1.4%	1.7%
E next Q+1	5.3%	3.7%	16.9%	8.7%	1.7%	3.2%

Sources: Visible Alpha, BNP Paribas

## Consumer chems KPI table

kpi	Organic growth (%)	Revenue (YoY)	Ebit margin	Operating Income
Next Q momo	0.5%	0.2%	0.0%	-
Last Q rank	1	1	1	2
Next Q rank	2	1	1	1
Last print	7.3%	4.3%	12.8%	14.9%
E next Q	6.5%	5.8%	13.3%	15.8%
E next Q+1	5.2%	3.4%	13.7%	15.8%

Sources: Visible Alpha, BNP Paribas

## Banks KPI table

kpi	Revenue (YoY)	Common equity 1 tier ratio	Net interest Income	Net interest Margin (avg loans)	Non Interest Income	Operating Income
Next Q momo	0.4%	0.1%	-0.5%	-0.0%	1.7%	4.1%
Last Q rank	3	5	5	4	2	4
Next Q rank	5	5	5	5	3	4
Last print	8.6%	13.8%	1.4%	3.5%	15.9%	11.8%
E next Q	2.4%	13.9%	-2.0%	3.5%	10.0%	2.1%
E next Q+1	6.0%	13.8%	1.9%	3.4%	10.4%	18.3%

Sources: Visible Alpha, BNP Paribas

## Aerospace & Defence KPI table

kpi	Organic growth (%)	Revenue (YoY)	Ebit margin	Operating Income
Next Q momo	-2.7%	-0.9%	-0.0%	-1.5%
Last Q rank	5	3	5	5
Next Q rank	4	1	1	1
Last print	65.8%	8.8%	9.5%	-13.4%
E next Q	89.1%	12.8%	10.3%	34.4%
E next Q+1	85.9%	11.1%	11.7%	27.8%

Sources: Visible Alpha, BNP Paribas

## Diversified chemicals KPI table

kpi	Organic growth (%)	Revenue (YoY)	Ebit margin	Inventories	Operating Income	Price impact %	Volume impact %
Next Q momo	-0.9%	-1.0%	-0.6%	2.6%	-11.1%	-0.9%	-0.7%
Last Q rank	1	1	4	2	3	1	2
Next Q rank	1	1	3	1	2	1	1
Last print	-2.3%	-3.5%	9.1%	-6.3%	-3.5%	-6.0%	2.0%
E next Q	1.9%	0.4%	9.2%	-3.5%	10.8%	-1.4%	2.7%
E next Q+1	3.7%	2.4%	8.7%	-2.1%	31.9%	1.5%	1.7%

Sources: Visible Alpha, BNP Paribas

# Appendix: Visible Alpha bottom-up analysis

## Data screening:

- We analyse 160 companies representing 56% of the SXXP market cap divided by industries.
- We retrieve the data from Visible Alpha and consider the most important KPIs depending on the industry.
- We aggregate the data at an industry level based on the relevant fundamental metric of each KPI and industry.
- We were able to have better visibility on the fundamental drivers of each industry and which companies is performing better.

## Methodology for different figures:

**1) Revisions Graphs:** We look at how full year revisions evolve over time and aggregate it depending on the KPI.

**2) SXXP Index KPIs tracker:** We aggregate all the relevant KPIs at an industry level. We then average all the time series to obtain the “SXXP economic cycle indicator”. (For all the KPIs we calibrate such that 1 is worst 5 is best.)

### 3) Table of micro to macro view:

- **Organic growth and Ebit margins:** We look at the 1m revisions of the YoY market cap weighted value.
- **Industry score KPI:** Same methodology as SXXP KPI tracker above but for each sector.

### 4) Tables on Appendix:

- **Next Q Momentum:** Takes analyst median consensus value for the given data and compares the value to its last 3-months average. (>0 implies value has been revised higher lastly, <0 value has been revised down lastly.)
- **Last Q rank or Next Q rank:** Last / Next earning season print ranked among the last 5 prints. Value ranks between 1 and 5 (1 being the biggest and thus green and 5 the smallest and red). (Consider 5, i.e. smaller, does not always mean worse.)
- **Last Print, E next Q, E next Q+1:** Actual value (or y/y value) of the KPI for the given period.



# Appendix: Analysis of Past event volatility on US Data

## We look at the following metrics:

- Consensus vs actual
- SPX abs move
- SPX implied move the night before and on Friday before
- US EPI
- Gamma Positioning
- Previous 15 days realised vol
- Absolute move vs implied move (i.e. target)
- We use an exponentially weighted mean to see at which level we are now. This shows trends weather owning gamma for a certain event becoming profitable over the last periods (Not the level but the trend) ( We use 50% of the weight on the last 5 prints and the other 50% weighted across the others)
- Importance of the event -> 1 day IV or IV over 15 abs median move over last 15 days prior to the event

# Appendix: Methodology - BNPP sector earnings model

**Data screening:** We start with close to 300 variables.

**Normalisation of variables:** All extreme data points are removed (extreme 10<sup>th</sup> percentiles). The data is then normalised using 1-year z-score.

**Volatility filter:** We remove all variables with more than 1.25 times the volatility of the EPS change.

**Correlation filter:** If two independent variables have a correlation greater than 80%, we keep only the one with the highest p-value when regressed against the EPS change.

## Model training:

### Find the best lag and best return for each variable:

The 6m change in EPS is regressed against each independent variable, using different lags (up to 52w) and different returns (4w, 12w, 26w and 52w).

The lag and return horizon are chosen to maximise the  $r^2$  between the variable and the EPS, which must exceed the coincident  $r^2$  by at least 10%.

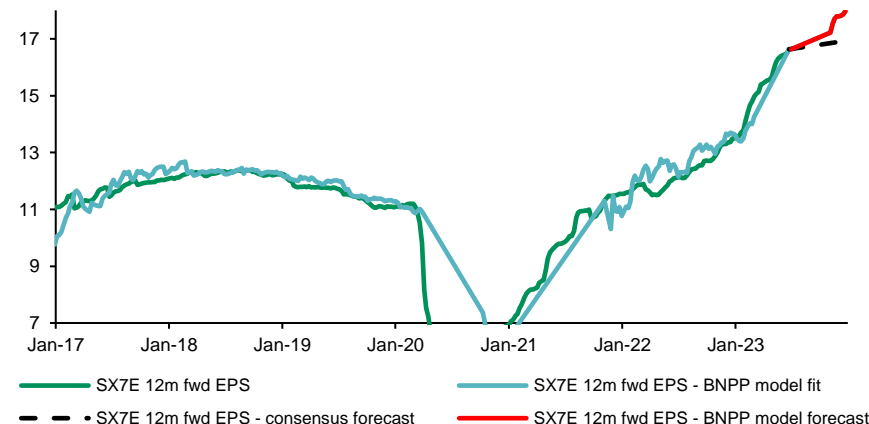
**Narrowing the variables:** We retain the 10 variables with the best p-value when regressed against the change in EPS.

**Rolling stepwise regression:** A 5y rolling stepwise regression is used to identify the best 3 variables to use at each step. These are used in the final model.

## Validation:

**Out-of-sample fit:** The model is tested against out of sample data. The results in the top chart show the out-of-sample fit, where each forecast point represents the 6m fwd forecast of the model.

## Our BNPP sector earnings model suggests further earnings upside ahead for SX7E



Sources: Bloomberg, BNP Paribas. Past performance is not indicative of future performance

## Top relevant variables over time identified by our model for SX7E

Name	Top 3 variables	Significance score
Germany Yield Spread - 10 year minus 3 month	X	2.9
Germany 10y yield	X	4
Eurozone New Orders PMI	X	3.8
Eurozone Manufacturing PMI		19.3
ECB Rates: New Loans for Consumption: Euro Area		11.2
IFO Germany Manufacturing Business Expectations		11.7
ECB Rate Non Finc Corp: Loans 1-5 Years		4.5
ECB Money Aggregates M1		17.6
US 2Y Real Yield		25

Source: BNP Paribas





## Appendix: Methodology – Over & Underwriting

Factors	Variable	Weight	Description
<b>Volatility score</b>		<b>50%</b>	<b>A number between 0 and 100. The higher the number, the higher the score in the relevant section</b>
	Skew: 2y % of (2m up or down skew / 2m implvol)	35%	Indication of richness of the skew in the name. We prefer to sell puts on name with the higher downside skew and sell calls on the name with the flatter upside skew,
	Carry: 2y % of (2m implvol – 15d realvol vs SX5E)	65%	Indication of richness of the implied volatility. We prefer to sell options on names whose implied volatility is significantly higher than the realised volatility.
<b>Fundamental score</b>		<b>35%</b>	<b>A number between 0 and 100. The higher the number, the higher the score in the relevant section</b>
	EPS momentum	25%	Companies with poor earnings momentum tend to underperform the market. Earnings momentum in this case is measured using the 3m revision to FY1 EPS by consensus company analysts.
	Revenue momentum	25%	Similar to earnings momentum, but less prone to base effects common around the turn in the cycle.
	EBIT to sales margin	10%	We dislike companies with high EBIT to Sales margins. This helps cyclically adjust for some companies having recovered quicker than others. The indicator is computed using the BEST_EBIT_TO_SALES from Bloomberg
	Revenue growth %	5%	We prefer selling calls on those names whose revenue growth is negative or low, and selling puts on names with high revenue growth. The indicator is computed using the BEST SALES YOY GTH on Bloomberg, i.e. the percent change in the sales estimate for the specified period from the same period a year earlier.
	EPS growth %	5%	We prefer selling calls on those names whose EPS growth is low or negative. We prefer to sell puts on those names whose EPS growth is high. The indicator is computed using the BESt (Bloomberg Estimates). LTG EPS is the estimated compounded annual growth rate (CAGR) of the operating earnings per share (EPS) over the company's next full business cycle (typically 3-5 years).
	PE ratio	10%	Expensive companies tend to underperform.
	PB ratio	10%	Expensive companies tend to underperform.
	Median target price / Last price	10%	Potential upside of the spot the median target price by consensus.
<b>Technical Score</b>		<b>15%</b>	<b>A number between 0 and 100. The higher the number, the higher the score in the relevant section</b>
	RSI 14 days	50%	The higher the score, the higher the RSI relative to the names in the universe. The RSI is a non-trending indicator that measures the momentum of a security to determine whether it is in an overbought or oversold condition. The Relative Strength Index (RSI) readings oscillate on a scale between 0 and 100. A reading between 70 and 80 warns of an overbought condition and is likely to encounter a downward correction. Readings between 30 and 20 are considered an oversold condition.
	% above 20d moving average	50%	% above the 20d moving average of the spot price. The higher the score, the higher the spot price is versus its 20d moving average. We prefer to sell calls on those overheated names whose spot price has increased rapidly and is above the short-term moving average. We combine the MA and the RSI indicator to understand if the trend is sustainable or a sign of overheating.



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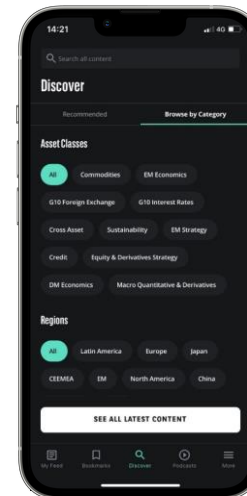
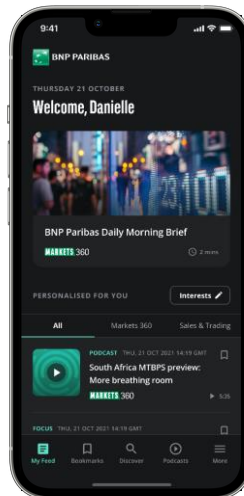
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