

Equity Markets Positioning Model

Positioning Deteriorates as Investors Rebuild Shorts.

CITI'S TAKE

Global equity positioning weakened further last week as investors adopted a more defensive stance and bearish flows re-emerged across major markets. Renewed shorts building across the US, Europe and parts of Asia drove a broad-based deterioration in sentiment. While positioning remains largely neutral across most indices, underlying P&L conditions have become increasingly fragile. Russell 2000 and DAX stand out as markets where loss-making positions have accumulated rapidly, increasing the risk of further de-grossing and position unwinds.

US – Shorts return as positioning deteriorates — US positioning weakened over the week as investors increased bearish exposure in both the S&P 500 and Russell 2000, with new short positioning dominating flow activity across the indices. Nasdaq positioning was comparatively resilient, with new risk flows largely offsetting position unwinds, leaving positioning near unchanged. Position risk is most concerning for Russell 2000, with all longs currently loss-making and aggregate investor P&L declining rapidly.

Europe – EuroStoxx remains resilient despite rising bearish flows – European positioning deteriorated sharply as investors reduced risk across most indices tracked. New shorts dominated flows in the DAX, FTSE 100 and European Banks, EuroStoxx 50 remained relatively resilient as meaningful short covering more than offset broader regional de-risking flows, resulting in a modest improvement in positioning despite weaker index performance.

Asia – Bearish exposure builds as capitulation risks loom – Asia remains the region with the weakest positioning profile. New short activity drove a significant deterioration in S&P/ASX200, while Nikkei positioning remains deeply bearish and heavily profitable, reducing the likelihood of immediate short-covering support. Hang Seng displays the most vulnerable long book in the region, with the majority of longs underwater and increasingly exposed to capitulation risk. The sole exception remains KOSPI, where new risk flows improved positioning but a large proportion of shorts remain offside, creating the potential for additional squeeze-driven upside should the markets rebound.

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Current Themes

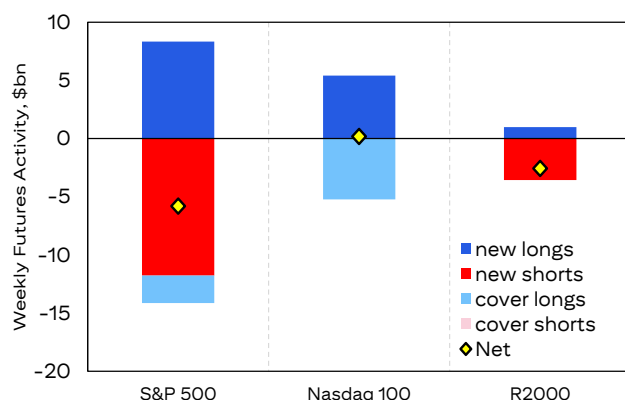
Global markets spent much of the week digesting a combination of geopolitical developments and inflation data. Renewed tensions between the US and Iran around the Strait of Hormuz supported a further move higher in Brent crude prices, while the August core CPI print of +0.3% MoM, represented the strongest monthly increase since April and surprised to the upside.

Against this backdrop, our economists believe that firmer underlying inflation, combined with renewed upside risks to energy prices, strengthens the case for a 25bp rate increase at the upcoming FOMC meeting ([US Economics - One rate hike, followed by cuts](#)). In addition, risk sentiment has further deteriorated following comments from several prominent AI industry leaders over the weekend advocating a targeted slowdown in the development of frontier AI models, prompting a risk-off reaction across markets, particularly within technology and AI-linked segments.

Prior to this, US indices had ended the week lower with US small caps (Russell 2000, -2.4%), bearing the brunt of recent adjustments to rate expectations. Positioning activity across US equities increased with last week's flows exhibiting a stronger bearish bias. Both the S&P and Russell 2000 saw new short positioning dominate weekly flows, leading to an easing in net positioning. For Nasdaq, positioning changes were contained as new risk flows were offset by a similar amount of unwinds.

Positioning for the S&P 500 (+0.4) and Russell 2000 (-0.4) are near neutral, with the latter seeing stronger bearish momentum. Nasdaq positioning retained a bullish (+1.0) tilt, although recent risk-off reactions linked to proposed restrictions on frontier AI development could increase volatility across technology-related exposures.

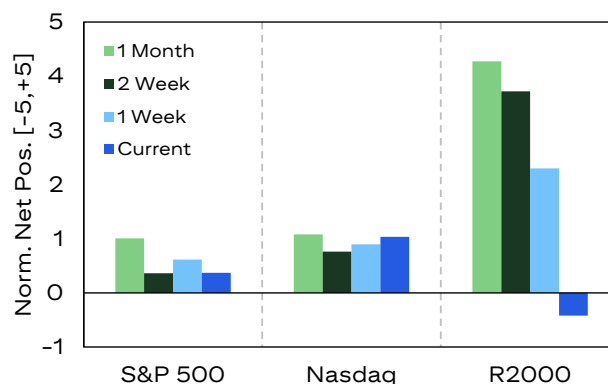
Figure 1. New shorts dominate S&P 500 and Russell 2000 weekly flow.



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Source: Citi Research

Figure 2. Small caps now exhibiting the weakest positioning profile.



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Source: Citi Research

Small caps present the most concerning micro picture of US indices tracked. Despite a broader compression across P&L levels, Russell 2000 aggregate net positioning losses have materially increased. Here, all longs are currently in loss, with the average position loss level near -2.5%, and with a Fed rate hike risk looming, the path of least resistance remains a step lower.

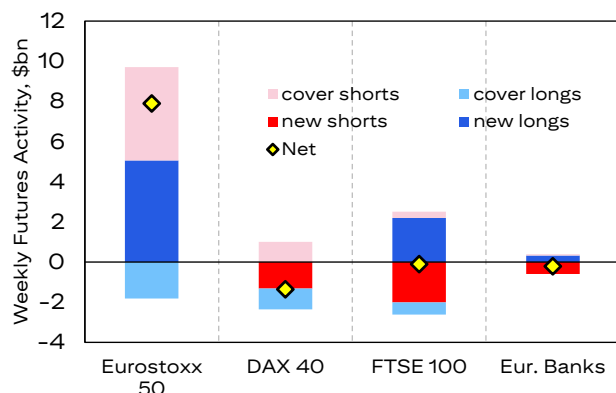
Europe

Positioning across Europe weakened notably over the week, with most indices experiencing a deterioration in sentiment. Flows in the DAX, FTSE 100 and European Banks declined, driven by consensus new short positioning.

The notable exception was EuroStoxx 50. Despite the index declining over the week, flows pointed to a meaningful rise of short covering, alongside several large, albeit short-lived, risk flows earlier in the week. Subsequent flow activity was more muted, leaving the index with a modest net improvement in positioning over the week.

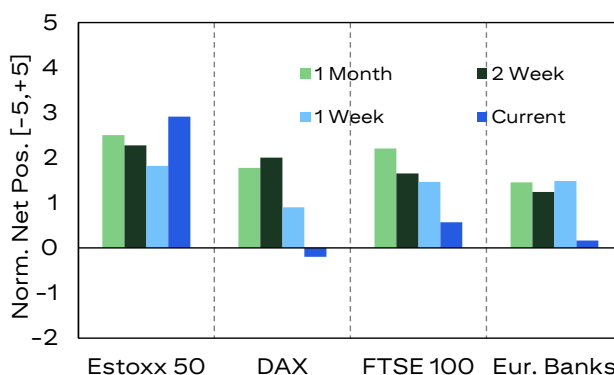
While bullish positioning in the Euro Stoxx 50 (2.9) remains elevated, it is still short of stretched/extended territory. Elsewhere, sentiment remains subdued across the DAX (-0.2), FTSE 100 (0.6) and European Banks (0.2), with all three indices continuing to see positioning levels retrace rapidly towards neutral (Figure 4).

Figure 3. New short flows return as European sentiment deteriorates.



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Figure 4. Bullish EuroStoxx positioning survives recent de-risking across indices.



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In Europe, DAX positioning has rapidly shifted from +1.9 at the end of August to -0.2 last Friday, a 2.1-point decline in eight sessions. All DAX longs are currently offside (average entry 25,996 versus a reference price of 25,522), while almost 80% of shorts are also loss-making. Although both books are underwater, losses are larger among longs. This asymmetric P&L profile increases the likelihood of further long liquidation and de-grossing activity, creating downside pressure and elevated volatility risk.

The natural pull would be towards further de-grossing and increased near term volatility given the large positioning size and number of loss-making positions.

Asia/EM

Markets across Asia delivered broadly negative performance over the week, with a notable exception for South Korea. KOSPI surged and stood in contrast with the seen across the other indices in the region.

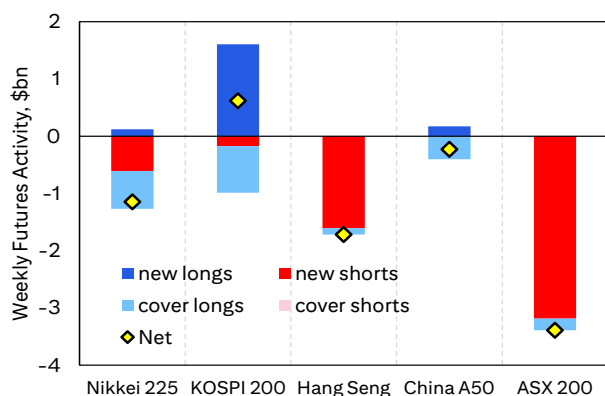
ASX 200 witnessed the largest week-on-week change, almost exclusively driven by new short activity. Bearish positioning is nearing extended levels, surpassed only by the extended one-sided Nikkei (-3.5) positioning which is currently the most bearish in the region. Here, the short book of -\$2.7bn is almost entirely

profitable — with only 5% of shorts offside at an average entry of 65,207 versus a reference price of 63,608.

Hang Seng (-1.6) compounds the regional malaise, with 91% of remaining longs now offside at an average entry of 25,424 against a reference price of 24,714 (-2.8% average loss per position), making it the most acutely stressed long book in Asia and the market most susceptible to forced capitulation if conditions deteriorate further.

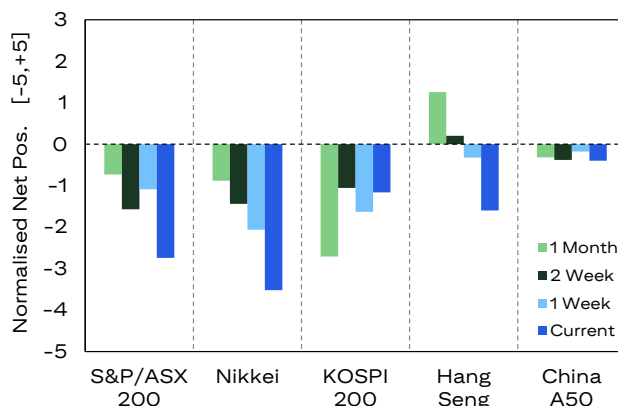
KOSPI 200 is the sole regional outlier, improving WoW to (-1.2) as investors added new longs; However, with almost 81% of KOSPI shorts offside, positioning is under pressure should the market recover.

Figure 5. Bearish flows broadens across Asian equities



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Figure 6. Regional weakness persist despite improving flows for KOSPI.



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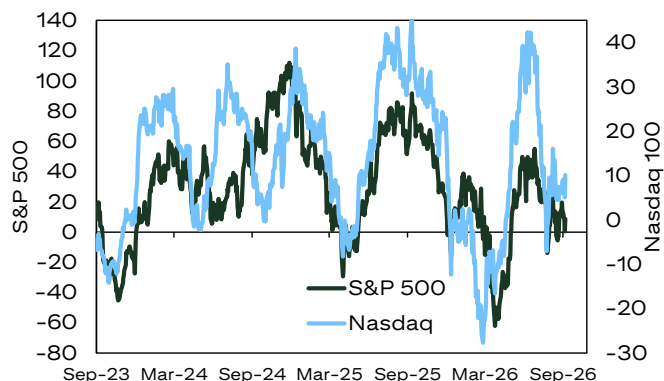
Figure 7. Positioning change across global equities.

	By 1w change		
	Change	Pos	PnL
EuroStoxx	1.1	2.9	-0.7
KOSPI 200	0.5	-1.2	-0.2
Nasdaq	0.1	1.0	-0.2
China A50	-0.2	-0.4	0.2
S&P Mini	-0.2	0.4	-0.1
MSCI EM	-0.8	1.1	0.0
FTSE	-0.9	0.6	-0.2
DAX	-1.1	-0.2	-3.2
Hang Seng	-1.3	-1.6	0.3
Eur Banks	-1.3	0.2	0.0
Nikkei	-1.5	-3.5	0.9
ASX 200	-1.7	-2.7	2.6
DM xUS	-2.3	-2.8	0.4
R2000	-2.7	-0.4	-0.7

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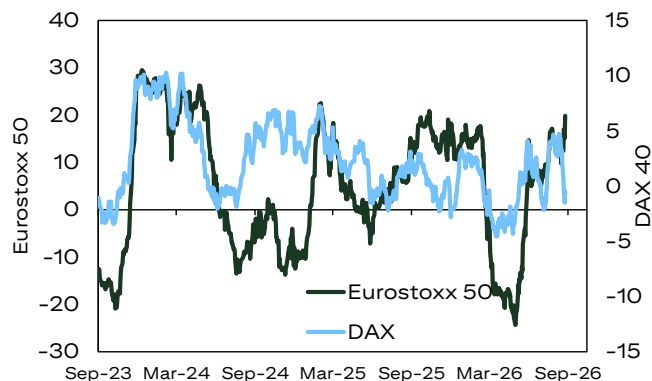
How has Positioning Changed?

Figure 8. S&P 500 (ES) and Nasdaq 100 (NQ) net positioning



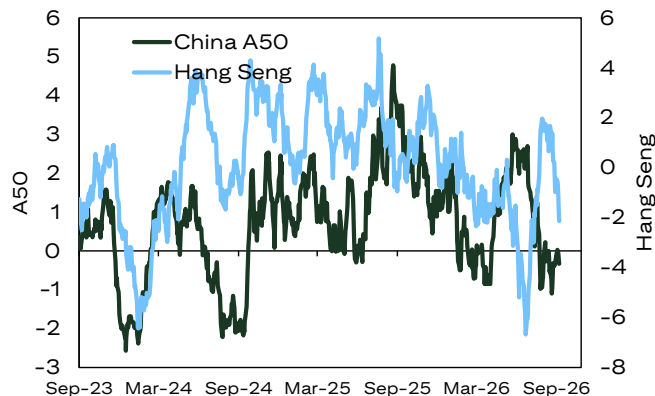
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Figure 9. EuroStoxx 50 (VG) and DAX 40 (GX) net positioning



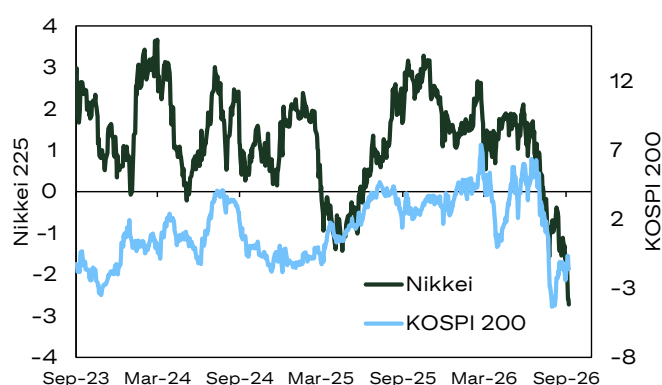
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Figure 10. Hang Seng (HI) and China A50 (XU) net positioning



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Figure 11. Nikkei 225 (NI) and KOSPI 200 (KM) net positioning



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Figure 12. Ranking of Equity Market positioning

11/09/2026	By Position	PnL
	Pos	
EuroStoxx	2.9	-0.7
MSCI EM	1.1	0.0
Nasdaq	1.0	-0.2
FTSE	0.6	-0.2
S&P Mini	0.4	-0.1
Eur Banks	0.2	0.0
DAX	-0.2	-3.2
China A50	-0.4	0.2
R2000	-0.4	-0.7
KOSPI 200	-1.2	-0.2
Hang Seng	-1.6	0.3
ASX 200	-2.7	2.6
DM xUS	-2.8	0.4
Nikkei	-3.5	0.9

	By 1w change	Pos	PnL
	Change		
EuroStoxx	1.1	2.9	-0.7
KOSPI 200	0.5	-1.2	-0.2
Nasdaq	0.1	1.0	-0.2
China A50	-0.2	-0.4	0.2
S&P Mini	-0.2	0.4	-0.1
MSCI EM	-0.8	1.1	0.0
FTSE	-0.9	0.6	-0.2
DAX	-1.1	-0.2	-3.2
Hang Seng	-1.3	-1.6	0.3
Eur Banks	-1.3	0.2	0.0
Nikkei	-1.5	-3.5	0.9
ASX 200	-1.7	-2.7	2.6
DM xUS	-2.3	-2.8	0.4
R2000	-2.7	-0.4	-0.7

	By PnL	PnL	Pos
ASX 200	2.6	-2.7	
Nikkei	0.9	-3.5	
DM xUS	0.4	-2.8	
Hang Seng	0.3	-1.6	
China A50	0.2	-0.4	
Eur Banks	0.0	0.2	
MSCI EM	0.0	1.1	
S&P Mini	-0.1	0.4	
FTSE	-0.2	0.6	
Nasdaq	-0.2	1.0	
KOSPI 200	-0.2	-1.2	
EuroStoxx	-0.7	2.9	
R2000	-0.7	-0.4	
DAX	-3.2	-0.2	

	By Position	Percentile
EuroStoxx	86%	
FTSE	58%	
MSCI EM	51%	
Nasdaq	42%	
DAX	27%	
R2000	25%	
S&P Mini	24%	
China A50	21%	
Eur Banks	19%	
Hang Seng	14%	
KOSPI 200	10%	
ASX 200	9%	
DM xUS	8%	
Nikkei	0%	

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Figure 13. Summary

		S&P 500	Nasdaq	R2000	Estoxx 50	DAX	FTSE 100	Eur. Banks	S&P/ASX 200	Nikkei	MSCI EAFE	MSCI EM	KOSPI 200	Hang Seng	China A50
(\$bn)	11/09/2026	ES	NQ	RTY	VG	GX	Z	CA	XP	NI	MFS	MES	KM	HI	XU
Equity	Net Notional	8.7	10.1	-1.0	19.8	-0.5	1.7	0.2	-5.2	-2.7	-4.6	2.6	-1.6	-2.1	-0.3
	Percentile	24%	42%	25%	86%	27%	58%	19%	9%	0%	8%	51%	9.6%	14%	21%
	Notional	-29.1	-5.2	-6.5	-4.0	-8.5	-3.3	-0.6	-7.4	-2.7	-6.2	0.0	-2.7	-4.4	-0.3
Shorts	Percentile	57%	43%	88%	43%	98%	81%	75%	93%	96%	88%	2%	93%	93%	32%
	Avg. Entry	7,686	29,578	2,948	6,417	25,253	10,732	319.5	8,924	65,207	3,227.3	--	1,069.5	25,223	14,679
	% offside	43%	0%	31%	26%	80%	53%	100%	18%	5%	33%	--	81%	9%	0%
	Notional	37.8	15.3	5.4	23.8	8.0	5.0	0.8	2.3	0.0	1.6	2.6	1.1	2.3	0.0
Longs	Percentile	24%	35%	52%	90%	85%	70%	27%	45%	0%	23%	25%	14%	59%	4%
	Avg. Entry	7,694	29,582	2,987	6,387	25,996	10,749	319.6	9,020	--	3,248	1,725	1,108.2	25,423.8	--
	% offside	79%	96%	100%	90%	100%	100%	1%	100%	--	100%	52%	100%	91%	--
	Ref Price	7,661	29,372	2,912	6,319	25,522	10,665	323.5	8,736	63,608	3,203	1,729	1,084.0	24,714.3	14,487
Activity	1-day	8.3	-5.0	0.7	4.7	1.0	2.2	0.0	-1.3	-0.1	0.0	0.0	-0.2	-0.4	-0.2
	Type	longs	shorts		longs	longs	longs	longs		longs		shorts			
	1-week	↓ -5.8	↗ 0.2	↘ -2.6	↗ 7.9	↘ -1.4	↘ -0.1	↘ -0.2	↘ -3.4	↘ -1.1	↘ -2.5	↗ 0.6	↗ 0.6	↘ -1.7	↘ -0.2
Normalised Scores (-5 / +5)															
Positioning	Equity implied	0.4	1.0	-0.4	2.9	-0.2	0.6	0.2	-2.7	-3.5	-2.8	1.1	-1.2	-1.6	-0.4
	ETF	0.5	1.4		0.2	-1.2	-0.3	1.1		1.4		1.4			
	3m Net Pos	0.4	1.2	-0.4	1.6	-0.7	0.1	0.7	-2.7	-1.1	-2.8	1.2	-1.2	-1.6	-0.4
	1w Change	-0.5	0.5	-2.7	0.9	-0.6	-0.8	-0.8	-1.7	-0.6	-2.3	-0.3	0.5	-1.3	-0.2
P&L	Equity implied	-0.1	-0.2	-0.7	-0.7	-3.2	-0.2	0.0	2.6	0.9	0.4	0.0	-0.2	0.3	0.2
	ETF	-0.2	-0.5		-0.3	0.1	-0.0	0.8		0.7		0.9			
	3m Net PnL	-0.1	-0.3	-0.7	-0.5	-1.6	-0.1	0.4	2.6	0.8	0.4	0.5	-0.2	0.3	0.2
	1w Change	-0.4	-0.1	0.5	-0.1	-0.4	-0.7	-0.6	2.7	0.2	0.4	-0.2	-0.4	0.3	0.1

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Source: Citi Research, Bloomberg

Figure 14. Average Entry Price Levels and Profit Breakeven Levels

		S&P 500	Nasdaq	R2000	Estoxx 50	DAX	FTSE 100	Eur. Banks	S&P/ASX 200	Nikkei	MSCI EAFE	MSCI EM	KOSPI 200	Hang Seng	China A50
	11/09/2026	ES	NQ	RTY	VG	GX	Z	CA	XP	NI	MFS	MES	KM	HI	XU
Notional	\$bn	8.7	10.1	-1.0	19.8	-0.5	1.7	0.2	-5.2	-2.7	-4.6	2.6	-1.6	-2.1	-0.3
	(-5/+5)	0.4	1.0	-0.4	2.9	-0.2	0.6	0.2	-2.7	-3.5	-2.8	1.1	-1.2	-1.6	-0.4
PnL	\$bn	-0.1	-0.1	-0.1	-0.2	-0.2	-0.0	0.0	0.1	0.1	0.0	0.0	-0.1	0.0	0.0
	(-5/+5)	-0.1	-0.2	-0.7	-0.7	-3.2	-0.2	0.0	2.6	0.9	0.4	0.0	-0.2	0.3	0.2
Ref Price		7,661	29,372	2,912	6,319	25,522	10,665	323.5	8,736	63,608	3,203	1,729	1,084	24,714	14,487
Shorts	Size (\$bn)	-29.1	-5.2	-6.5	-4.0	-8.5	-3.3	-0.6	-7.4	-2.7	-6.2	--	-2.7	-4.4	-0.3
	Avg Price	7,686	29,578	2,948	6,417	25,253	10,732	319.5	8,924	65,207	3,227	--	1,069.5	25,223	14,679
	Avg P&L	0.3%	0.7%	1.3%	1.6%	-1.1%	0.6%	-1.2%	2.2%	2.5%	0.8%	--	-1.3%	2.1%	1.3%
	Offside (%)	43%	0%	31%	26%	80%	53%	100%	18%	5%	33%	--	81%	9%	0%
- Offside price															
Longs	100%	7,788	29,702	2,995	6,479	26,178	10,858	322.7	9,123	67,617	3,268	--	1,121.6	25,475	14,729
	75%	7,729	29,631	2,971	6,458	25,272	10,843	318.5	9,008	65,679	3,258	--	1,078.7	25,399	14,680
	50%	7,695	29,559	2,951	6,417	25,103	10,635	318.5	8,941	64,895	3,242	--	1,059.0	25,266	14,631
	25%	7,576	29,376	2,901	6,309	24,968	10,635	318.5	8,774	64,526	3,178	--	1,051.8	25,015	14,627
	0%	7,454	29,375	2,901	6,309	24,873	10,635	318.5	8,736	63,607	3,178	--	986.1	24,714	14,627
Longs	Size (\$bn)	37.8	15.3	5.4	23.8	8.0	5.0	0.8	2.3	0.0	1.6	2.6	1.1	2.3	0.0
	Avg Price	7,694	29,582	2,987	6,387	25,996	10,749	319.6	9,020	--	3,248	1,725	1,108.2	25,424	--
	Avg P&L	-0.4%	-0.7%	-2.5%	-1.1%	-1.8%	-0.8%	1.2%	-3.1%	--	-1.4%	0.2%	-2.2%	-2.8%	--
	Offside (%)	79%	96%	100%	90%	100%	100%	1%	100%	--	100%	52%	100%	91%	--
- Offside price															
Longs	100%	7,600	29,364	2,912	6,258	25,538	10,665	318.6	8,990	--	3,246	1,699	1,092.6	23,497	--
	75%	7,610	29,370	2,949	6,311	25,554	10,665	318.7	8,990	--	3,246	1,699	1,092.6	25,411	--
	50%	7,691	29,462	2,992	6,357	25,894	10,694	319.4	8,990	--	3,246	1,726	1,093.7	25,593	--
	25%	7,731	29,647	3,009	6,482	26,348	10,834	320.1	9,031	--	3,247	1,736	1,108.2	25,631	--
	0%	7,782	29,868	3,041	6,533	26,571	10,848	323.5	9,114	--	3,250	1,756	1,122.7	25,758	--

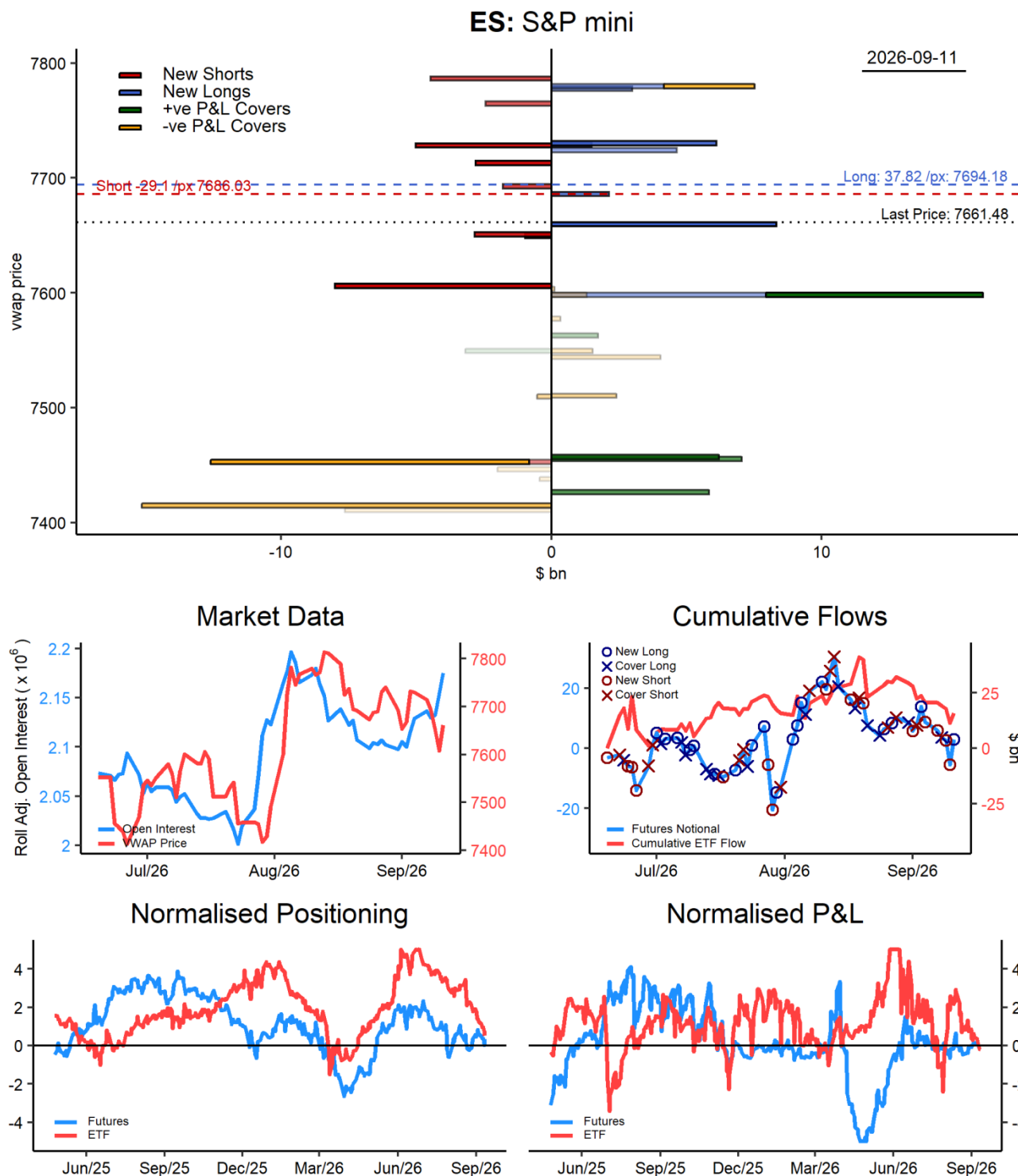
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Equity Markets Positioning Charts

S&P 500

Figure 15. S&P 500 mini contract (ES) - position snapshot and time-series

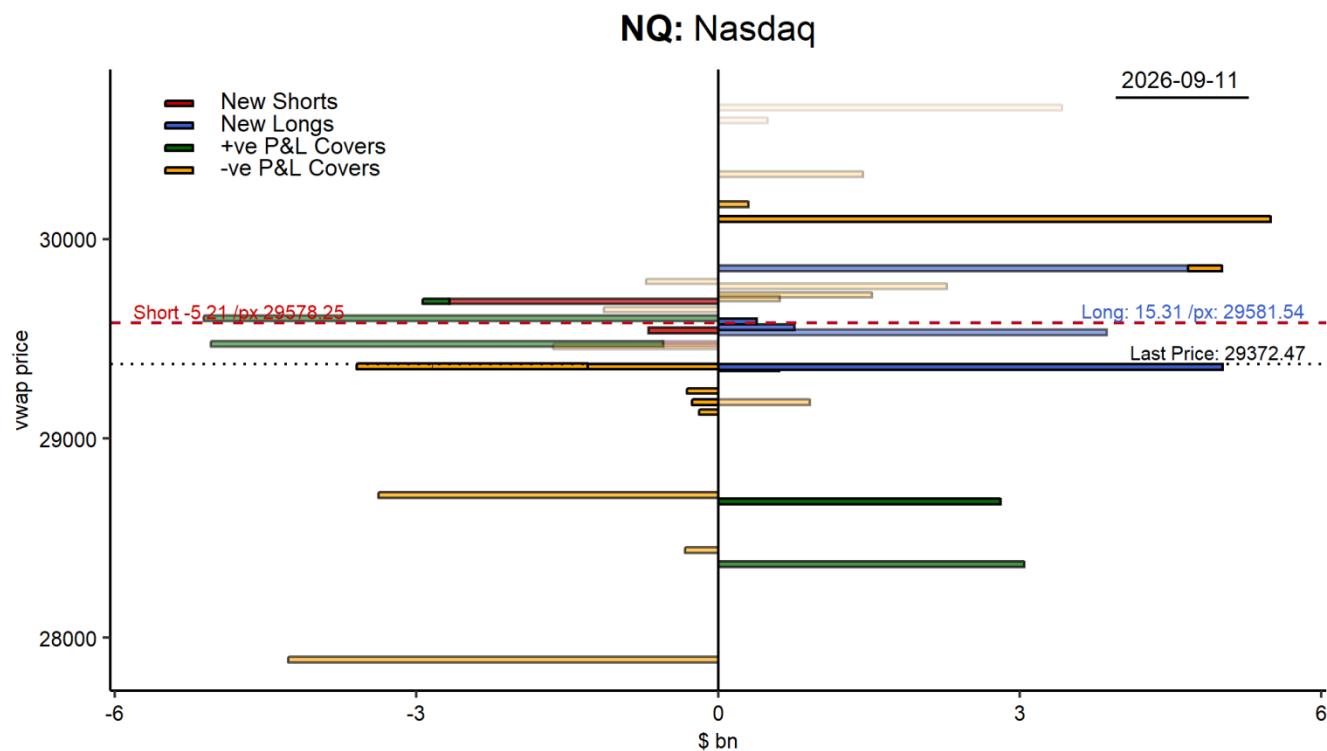
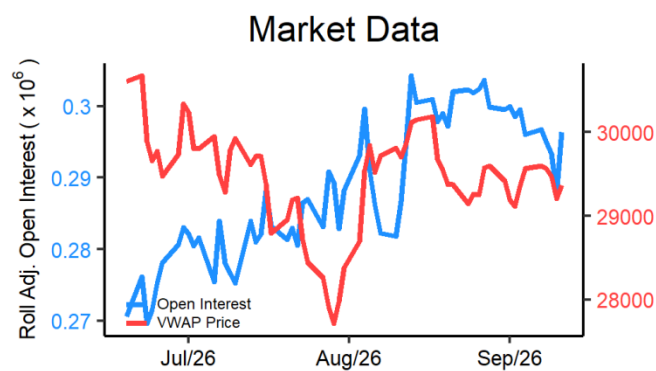
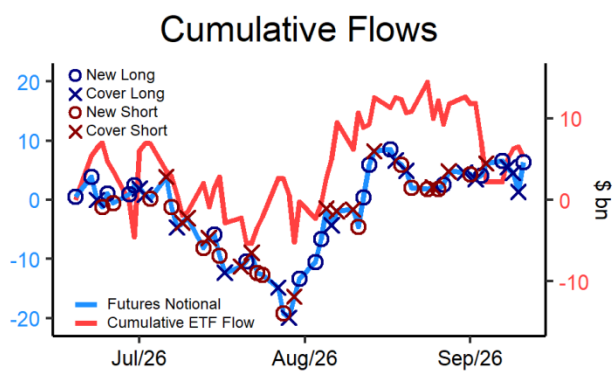
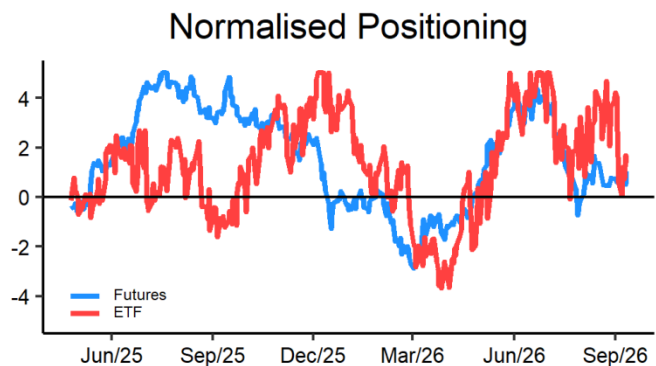
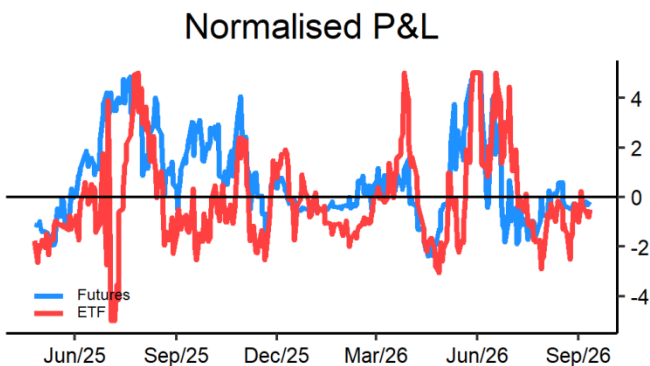


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Source: Citi Research, Bloomberg

NASDAQ 100

Figure 16. Nasdaq 100 contracts (NQ) - position snapshot and time-series

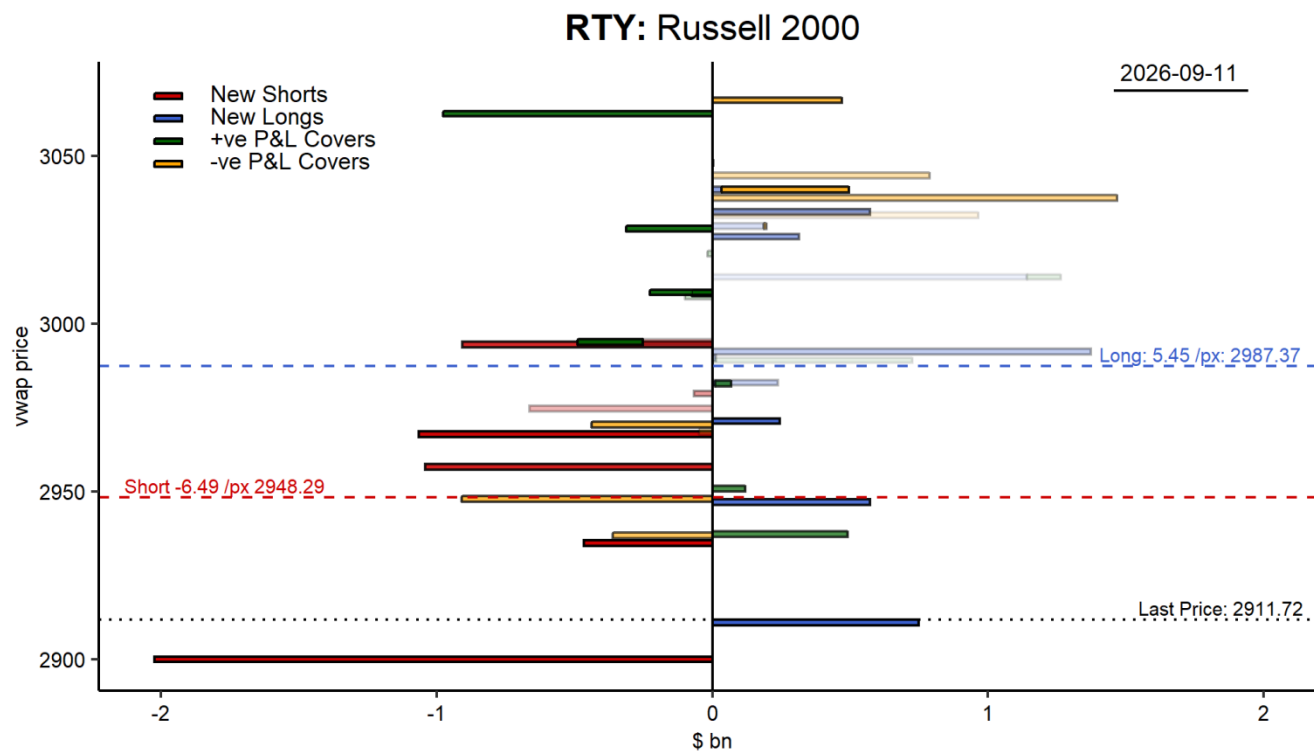
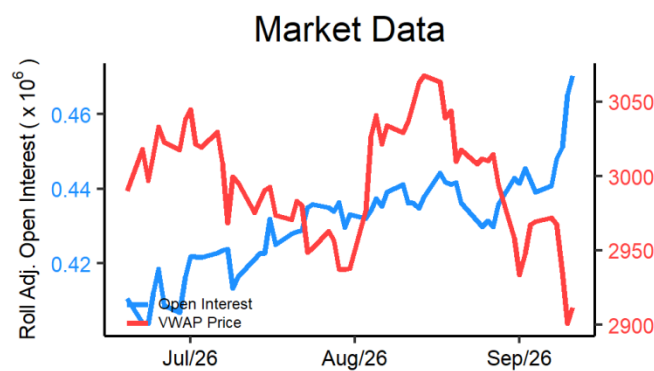
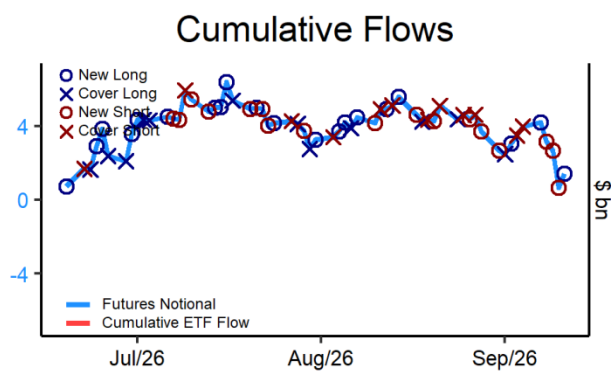
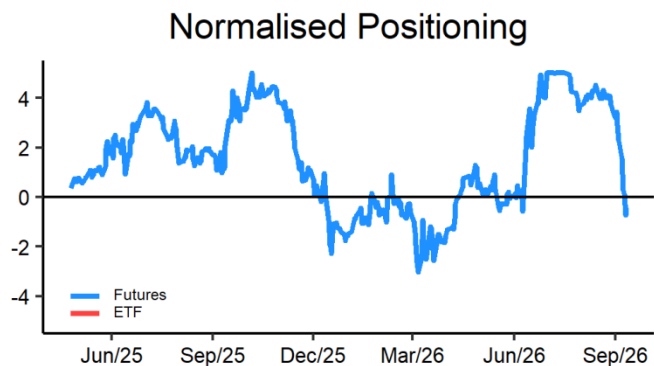
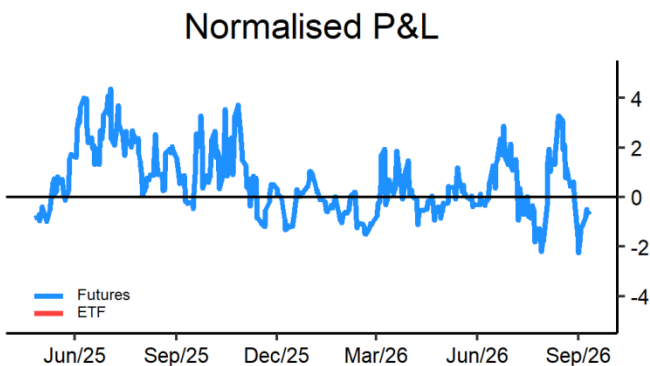


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Source: Citi Research, Bloomberg

Russell 2000

Figure 17. Russell 2000 contracts (RTY) – position snapshot and time-series

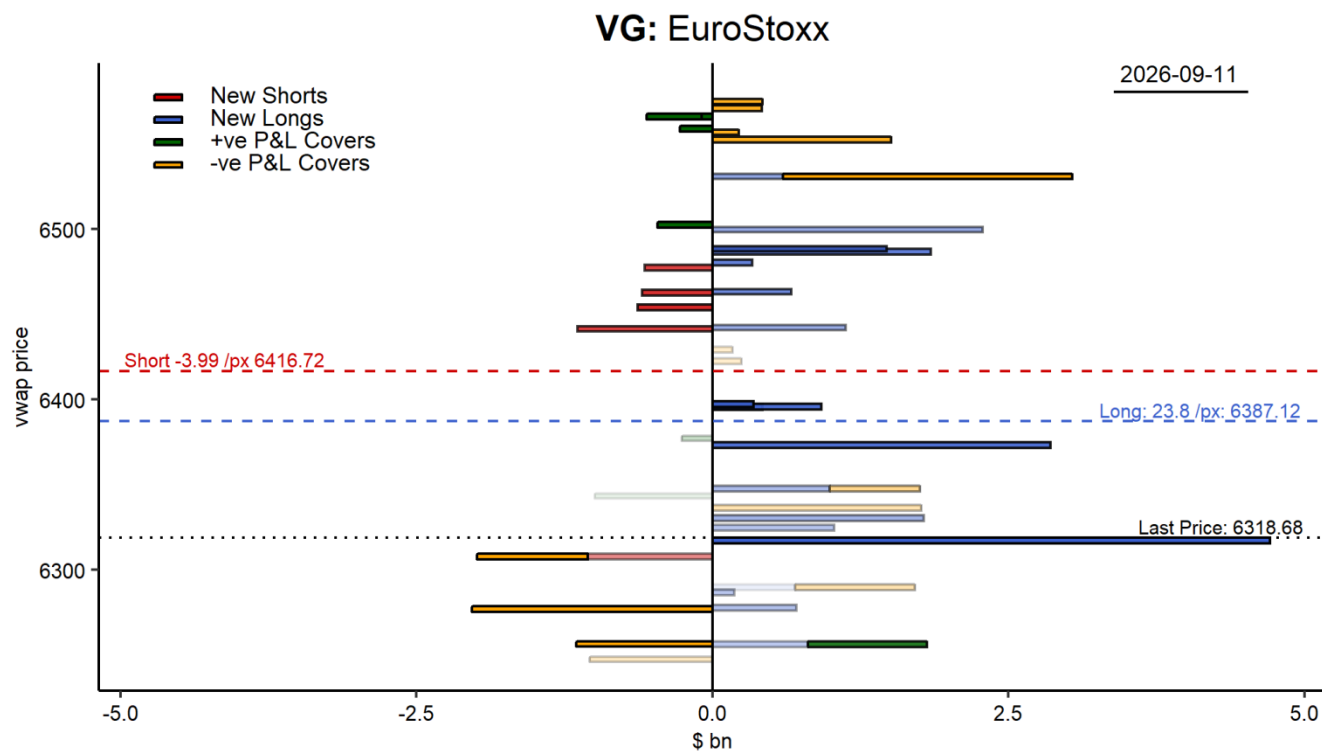
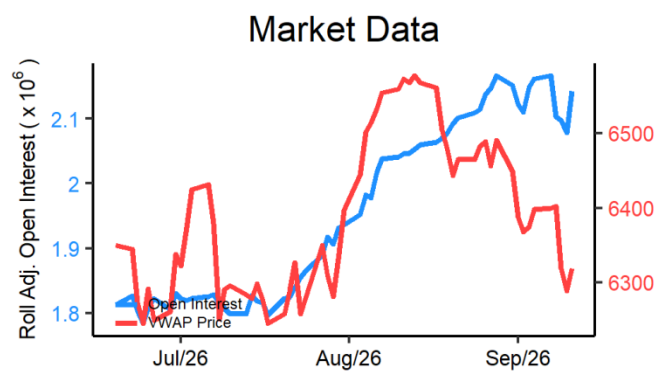
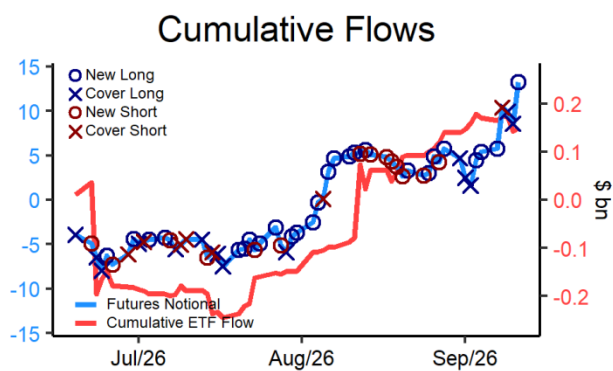
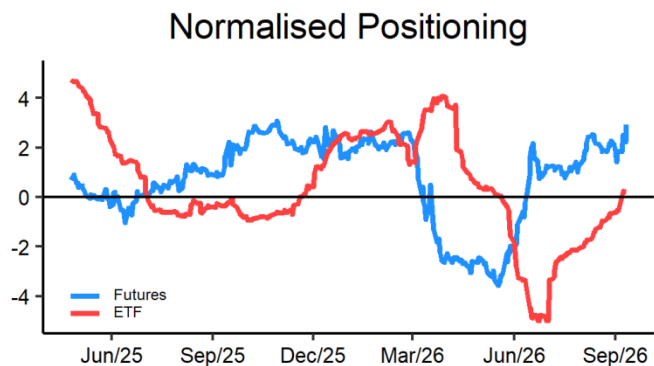
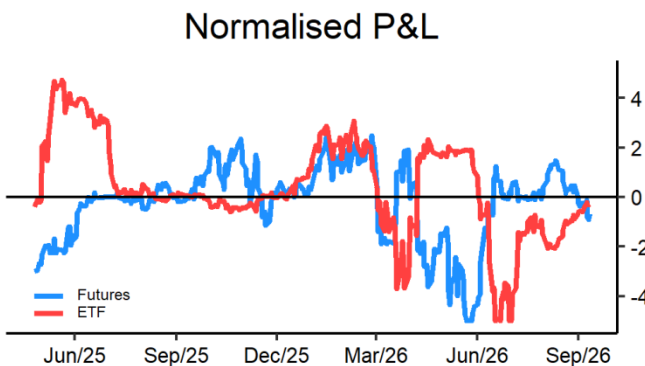


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Source: Citi Research, Bloomberg

EuroStoxx 50

Figure 18. Eurostoxx 50 contracts (VG) - position snapshot and time-series

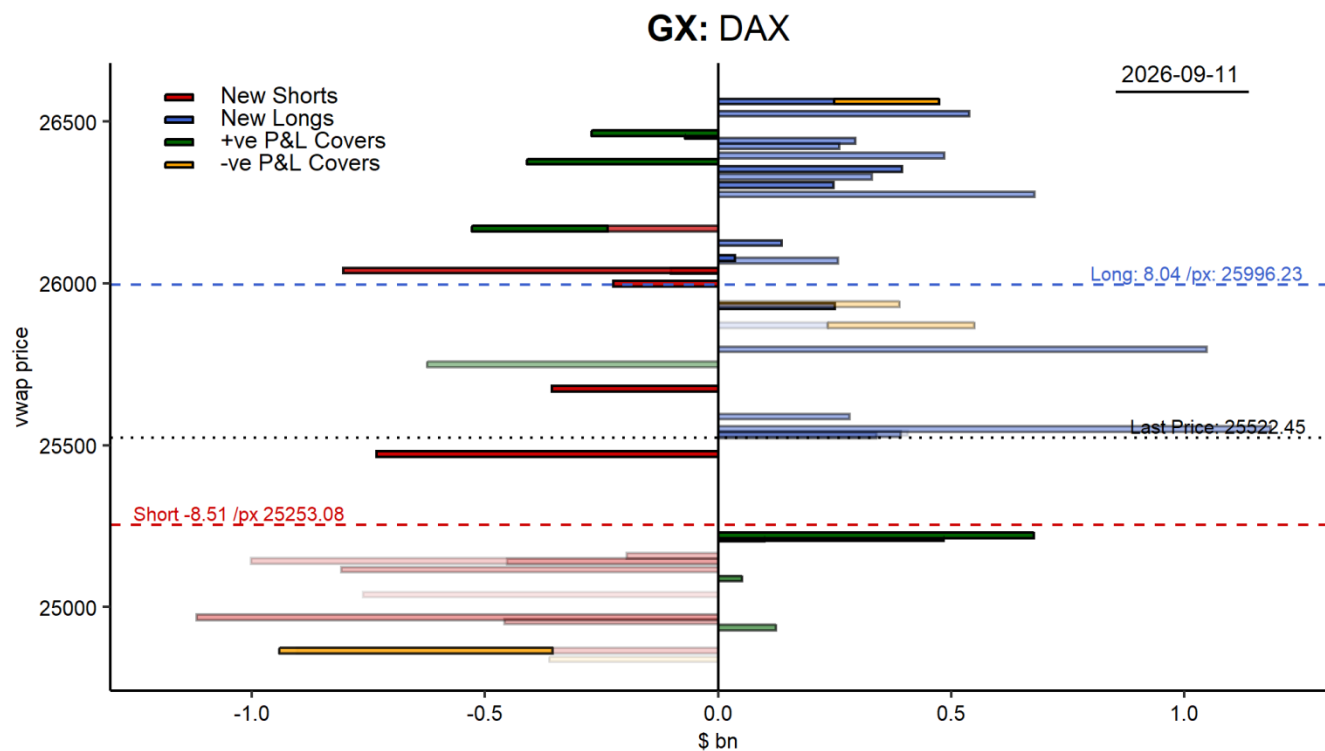
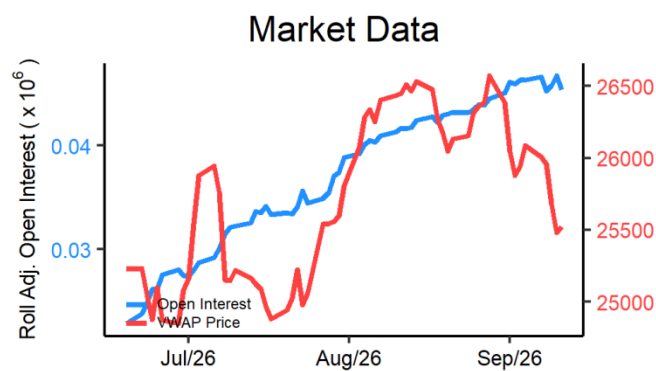
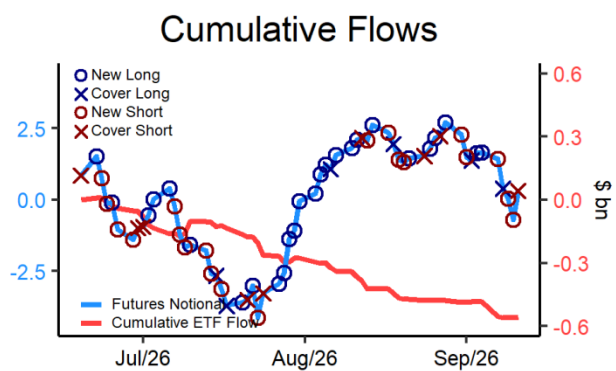
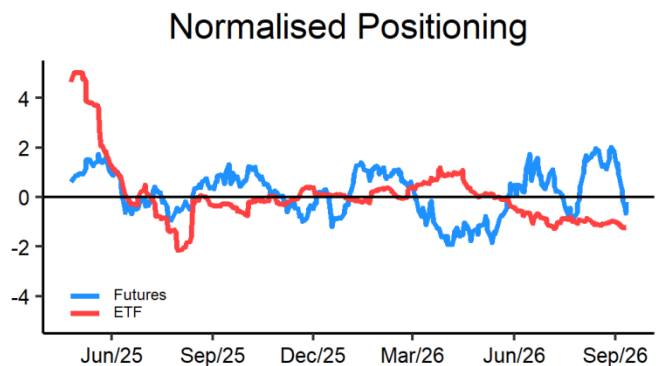
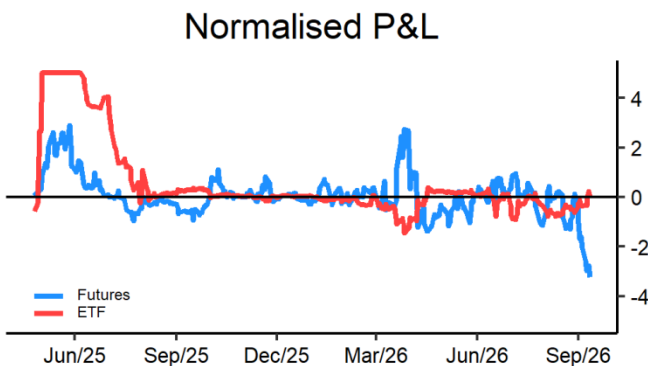


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DAX

Figure 19. DAX contracts (GX) - position snapshot and time-series

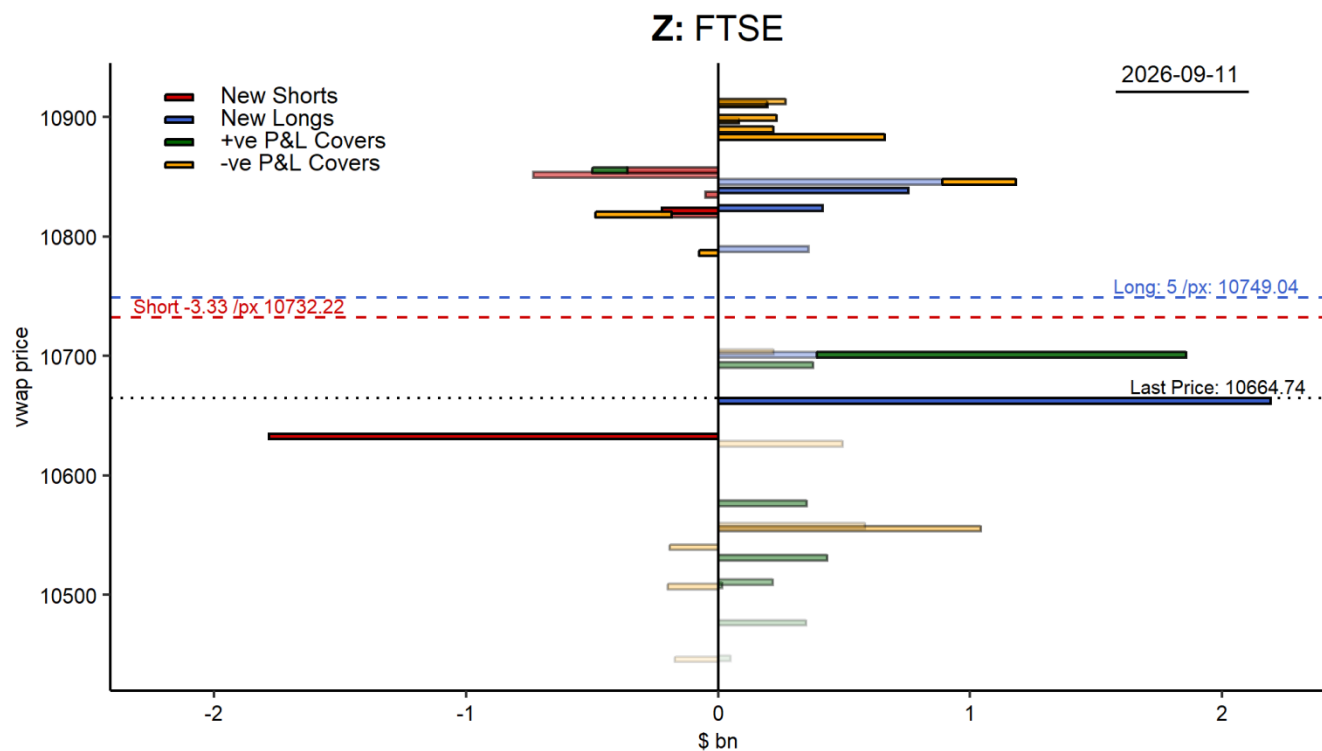
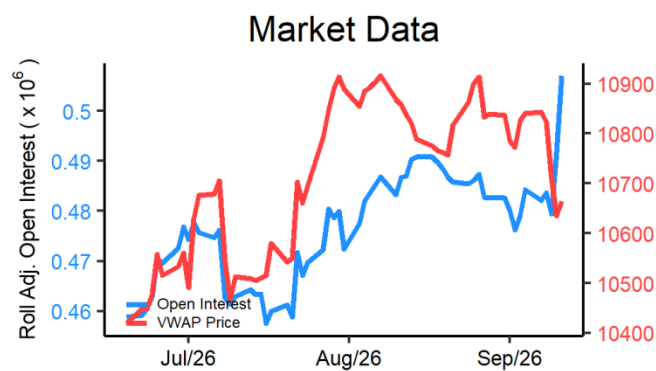
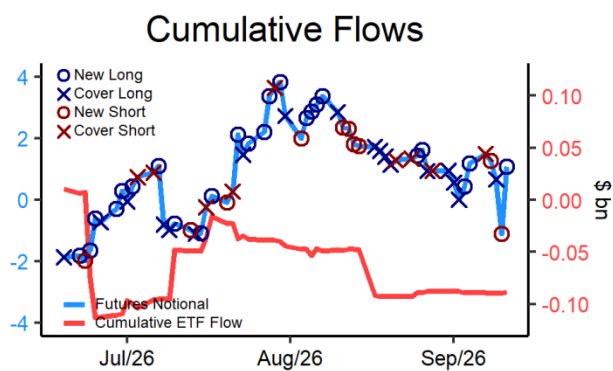
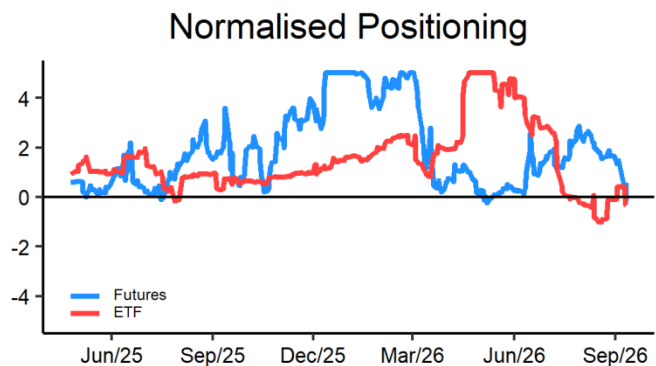
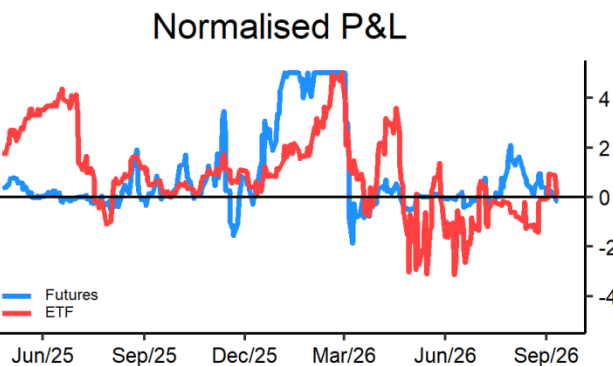


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Source: Citi Research, Bloomberg

FTSE 100

Figure 20. FTSE 100 contracts (Z) - position snapshot and time-series

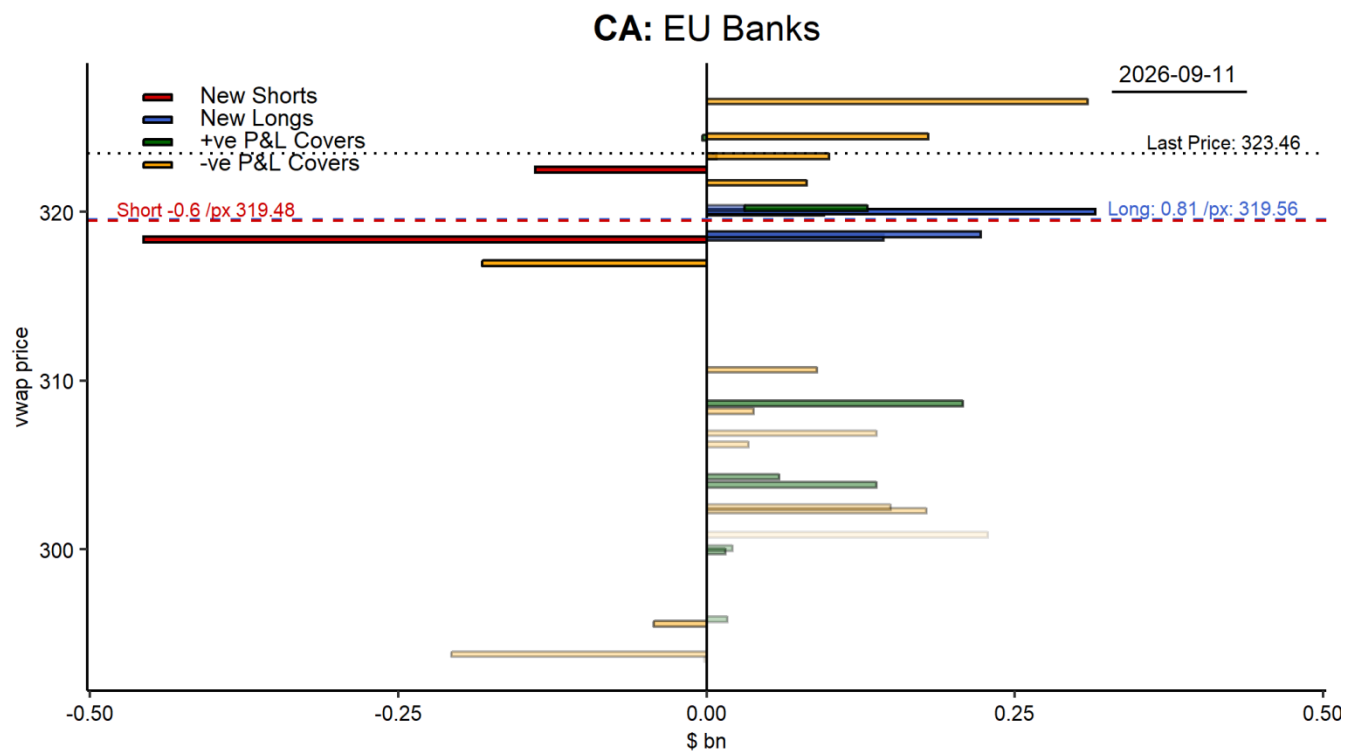
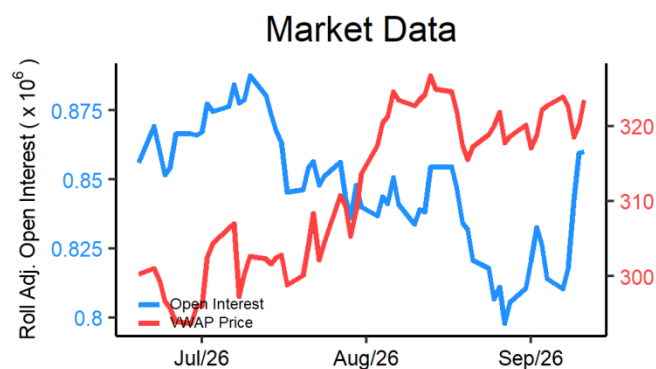
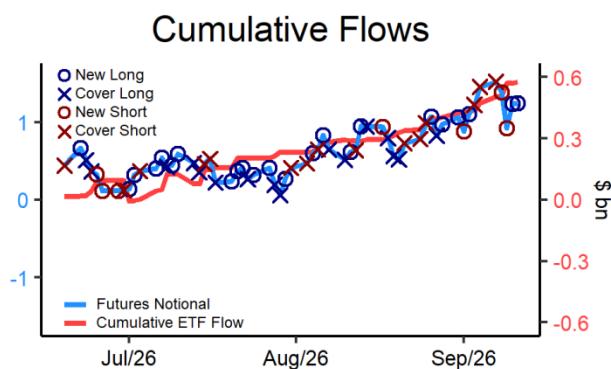
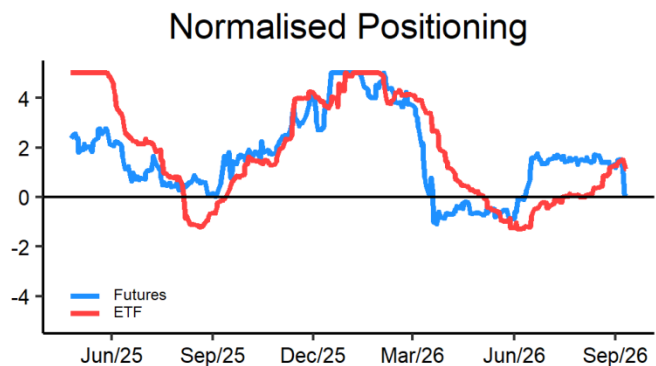
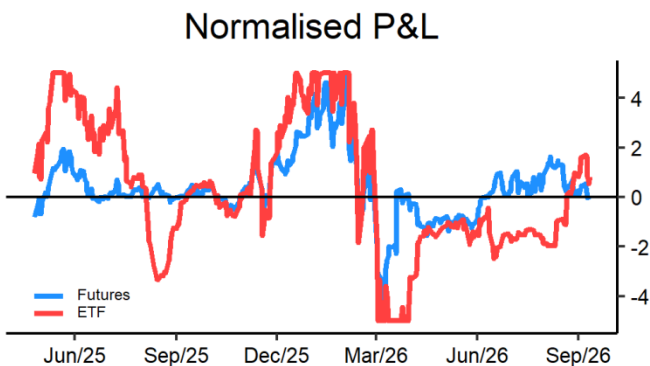


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Source: Citi Research, Bloomberg

European Banks (SX7E)

Figure 21. Eurostoxx Banks (SX7E) Equity contracts (CA) - position snapshot and time-series

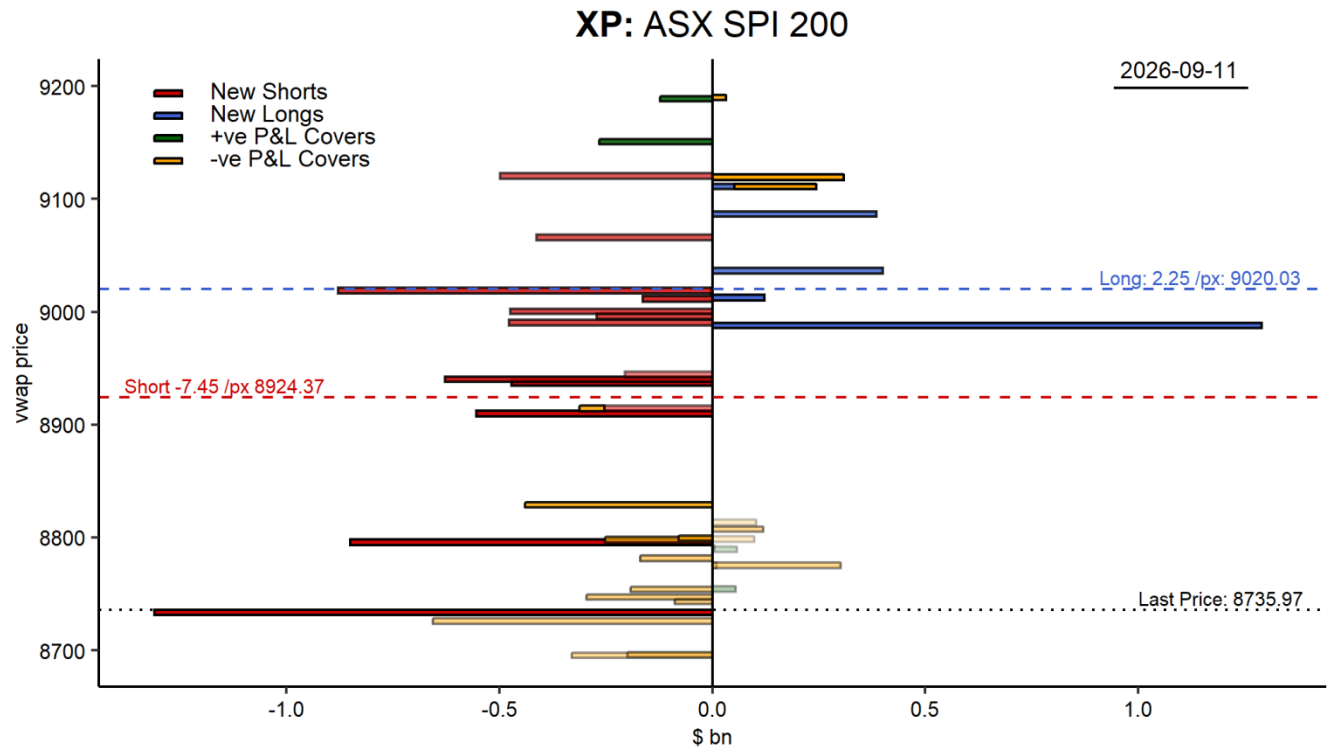
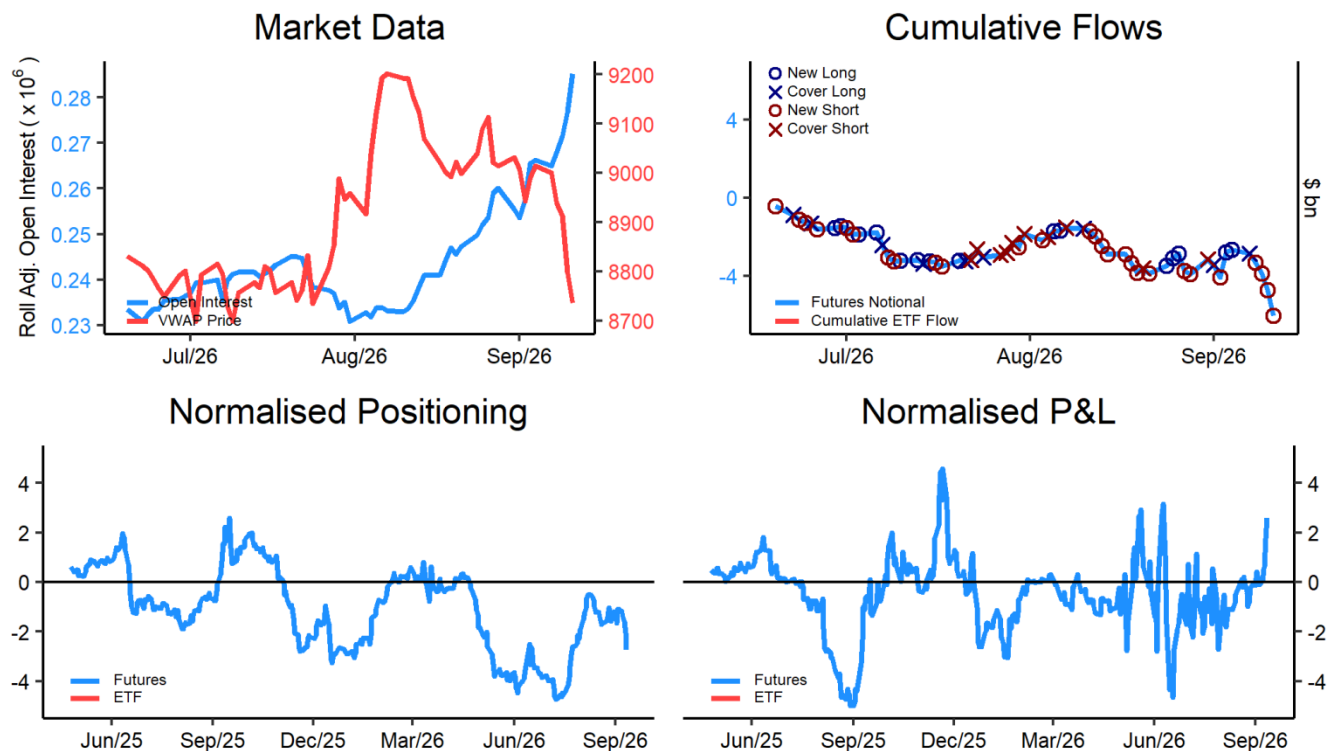


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Source: Citi Research, Bloomberg

S&P ASX 200

Figure 22. S&P ASX 200 Equity contracts (XP) - position snapshot and time-series

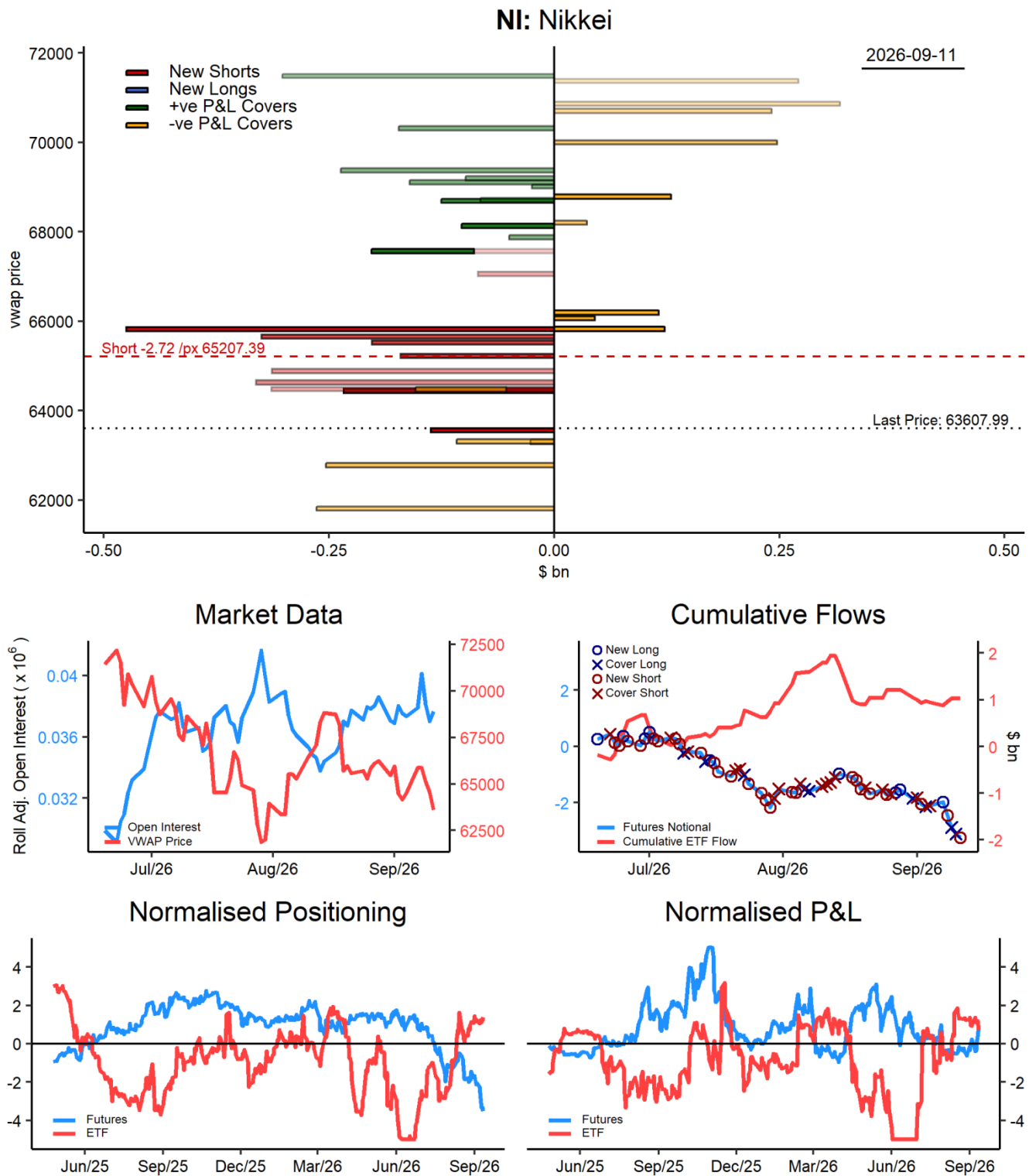


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Source: Citi Research, Bloomberg

Nikkei 225

Figure 23. Nikkei contracts (NI) - position snapshot and time-series

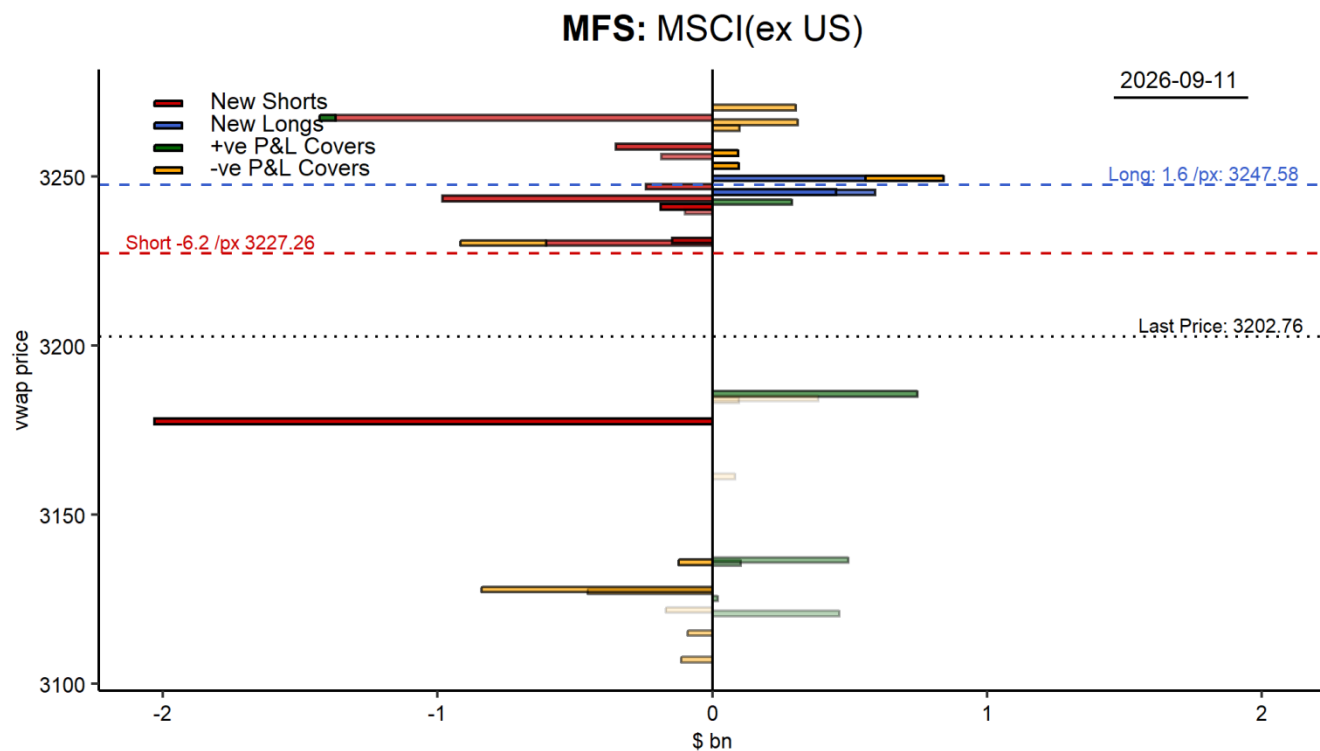
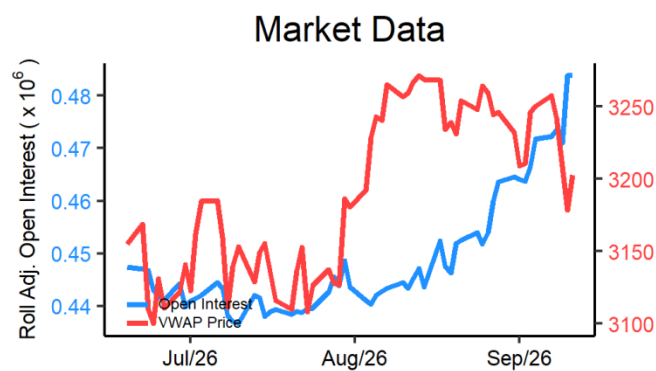
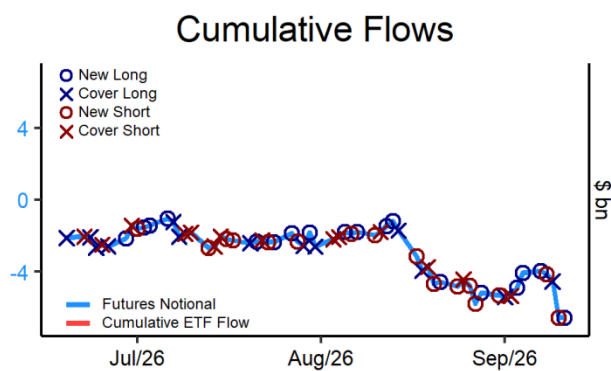
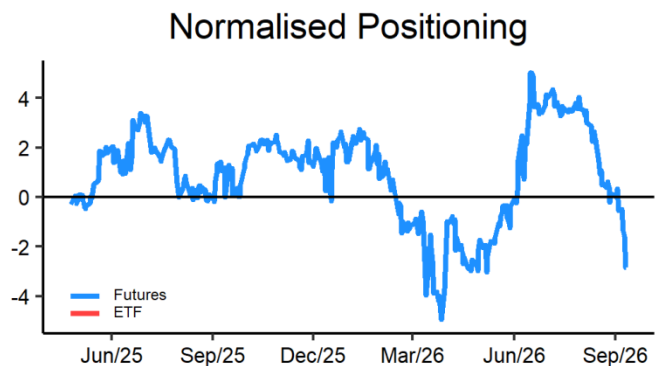
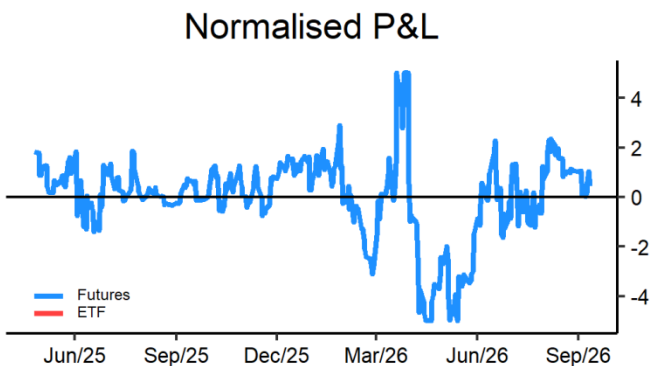


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Source: Citi Research, Bloomberg

MSCI EAFE

Figure 24. MSCI EAFE (DM ex-US) (MFS) - position snapshot and time-series

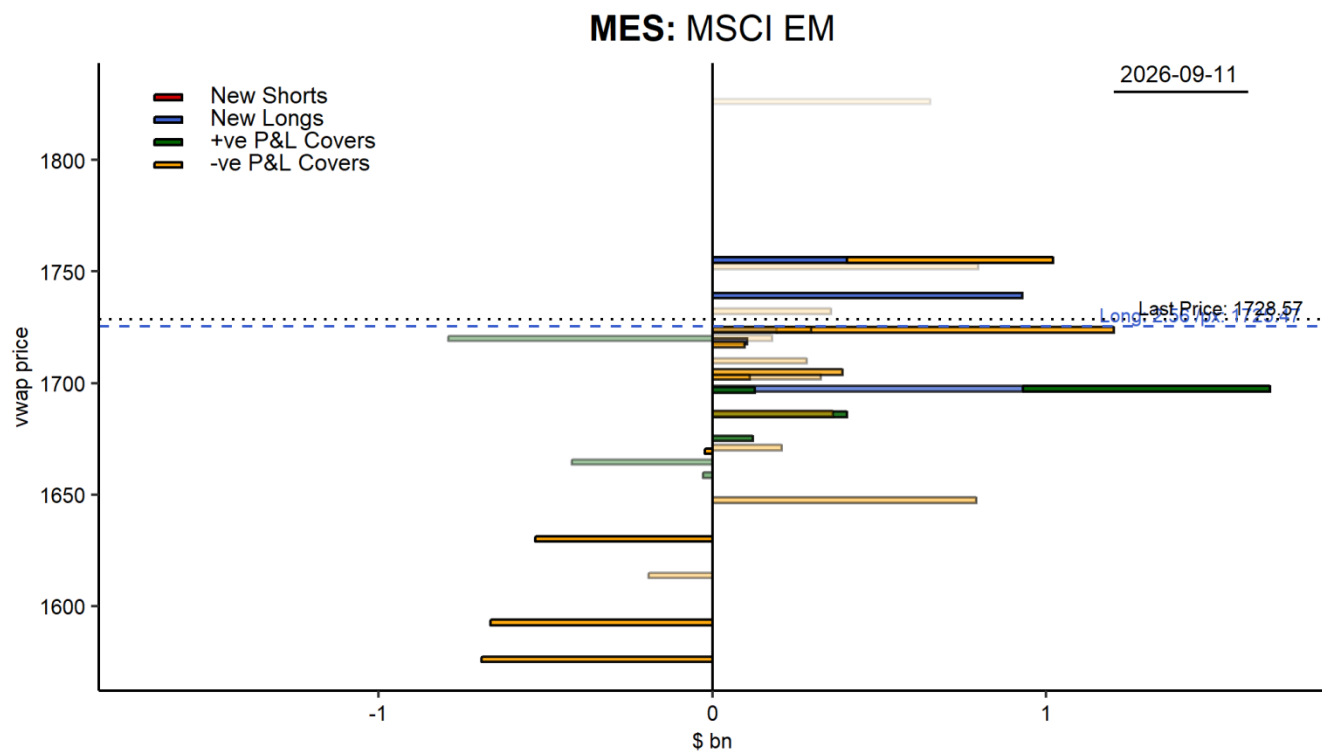
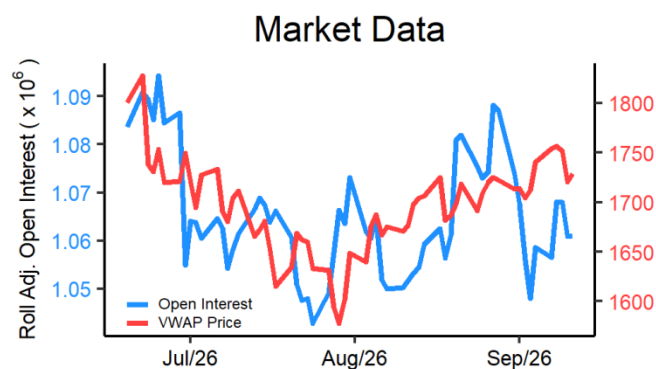
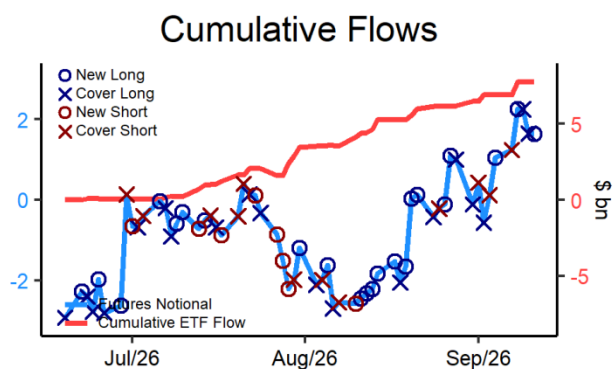
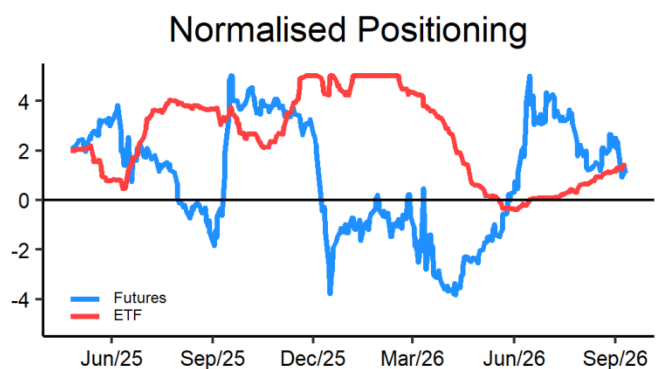
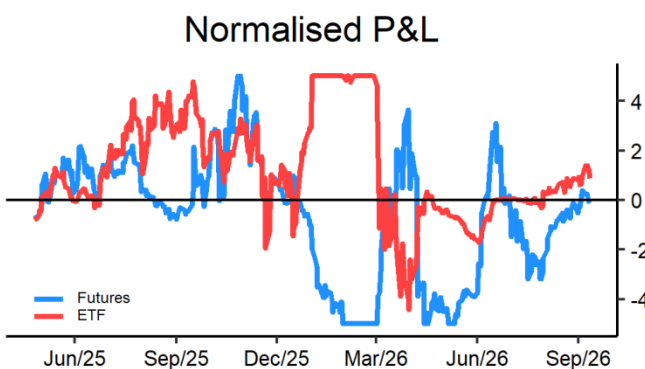


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Source: Citi Research, Bloomberg

MSCI EM

Figure 25. MSCI EM Equity contracts (MES) - position snapshot and time-series

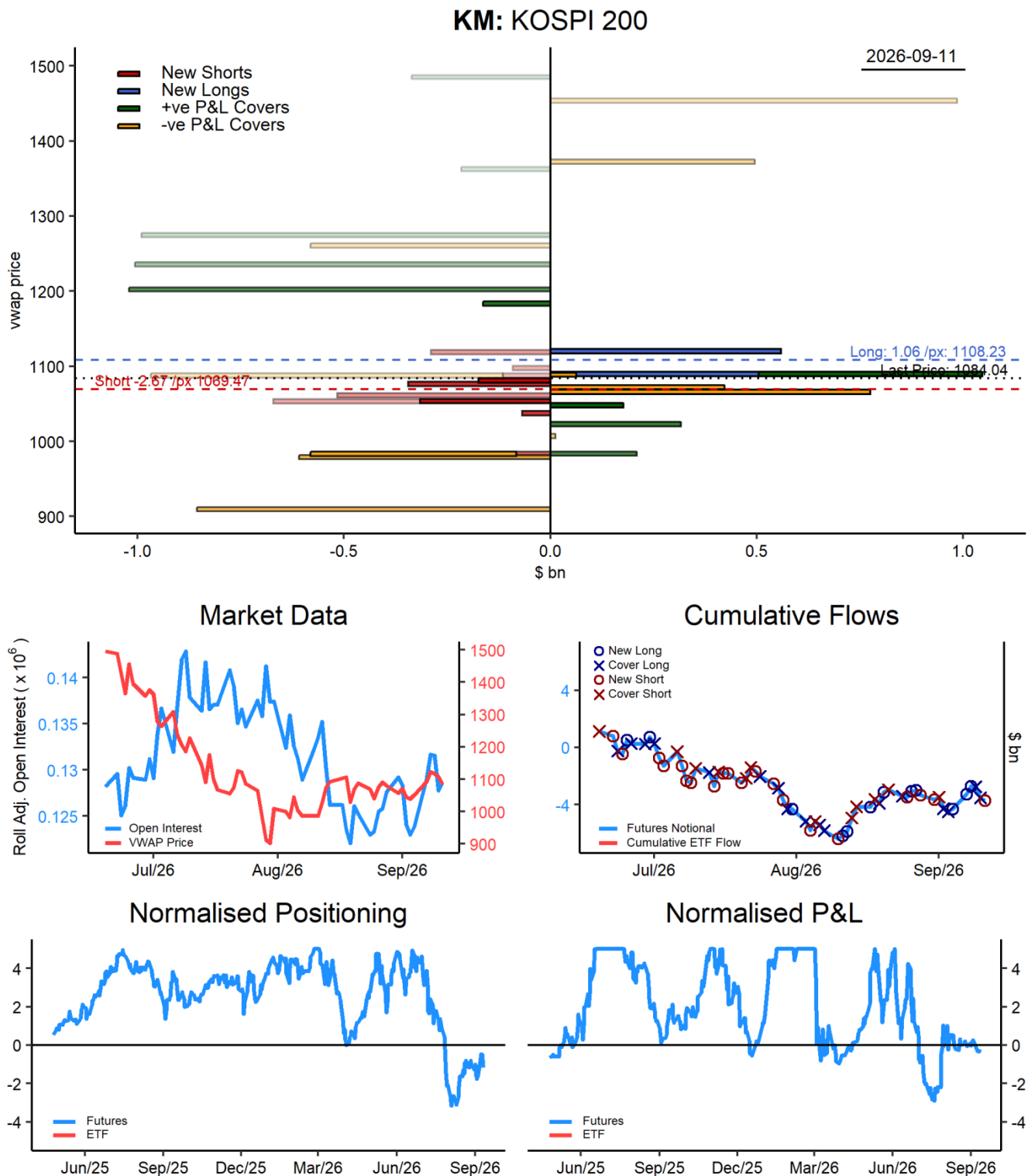


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Source: Citi Research, Bloomberg

KOSPI 200

Figure 26. KOSPI 200 contracts (KM) - position snapshot and time-series

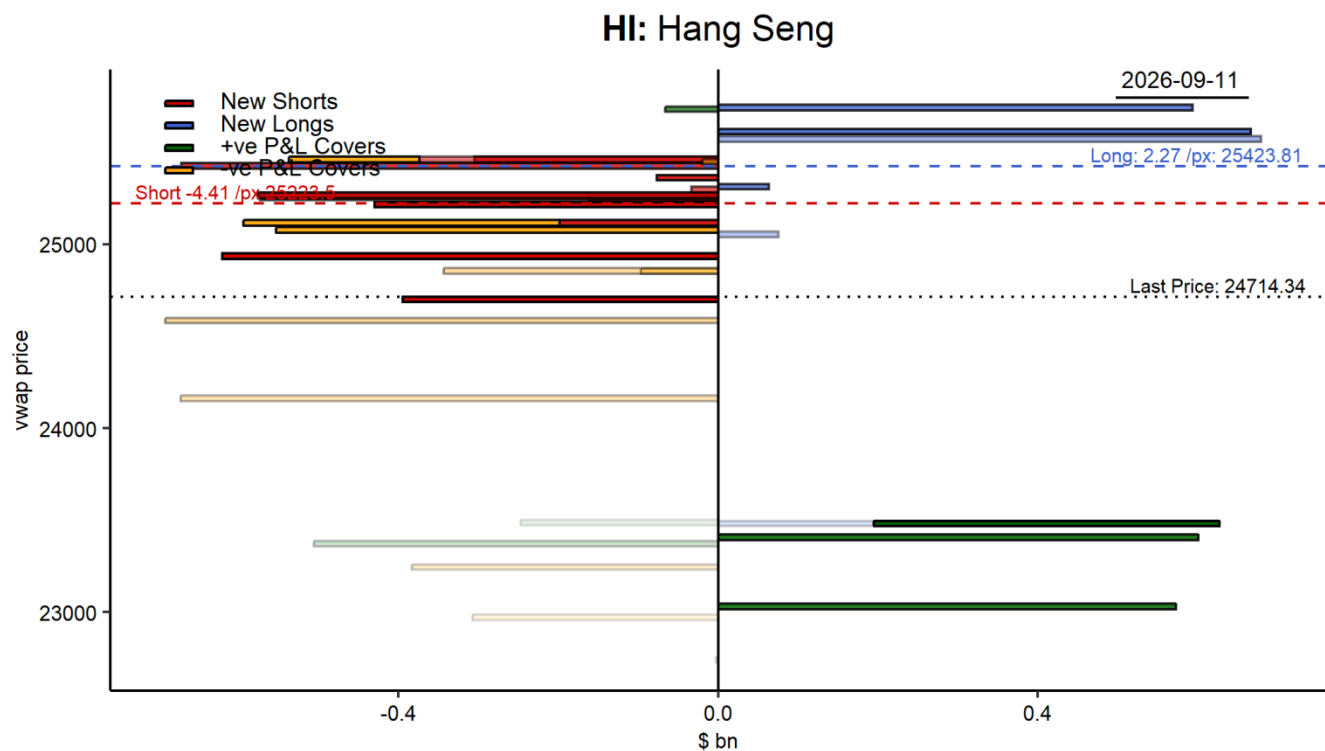
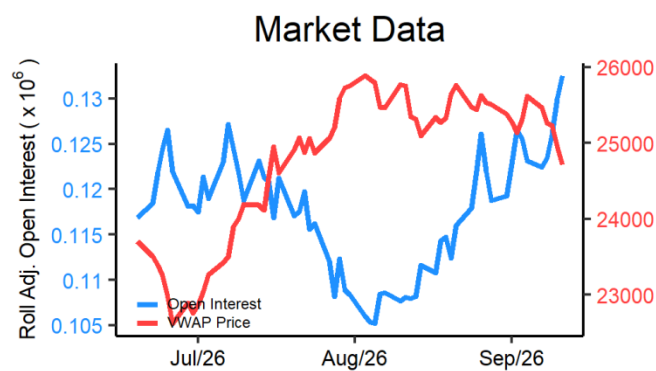
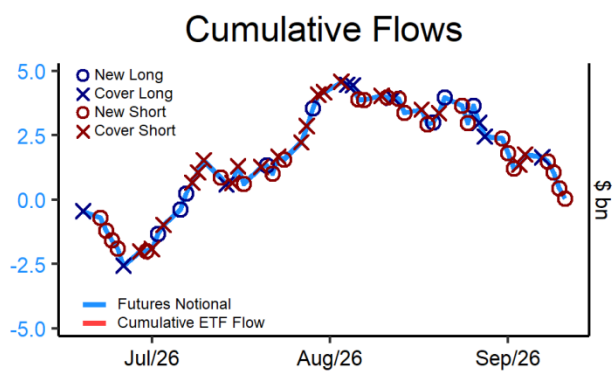
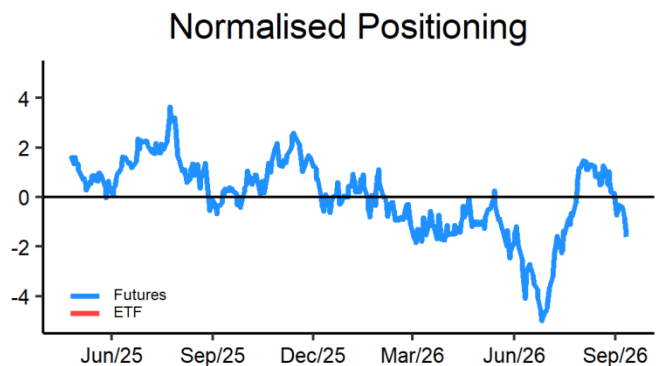
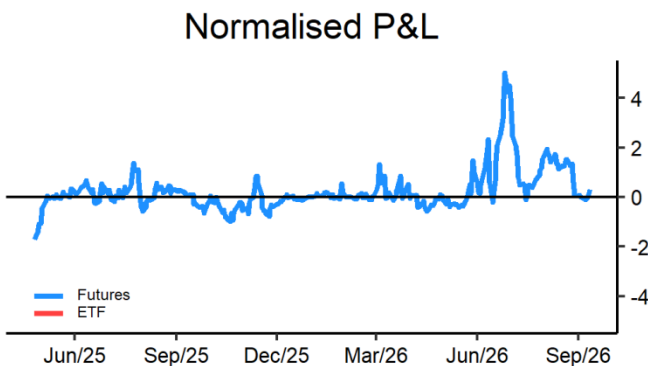


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Source: Citi Research, Bloomberg

Hang Seng

Figure 27. Hang Seng contracts (HI) - position snapshot and time-series

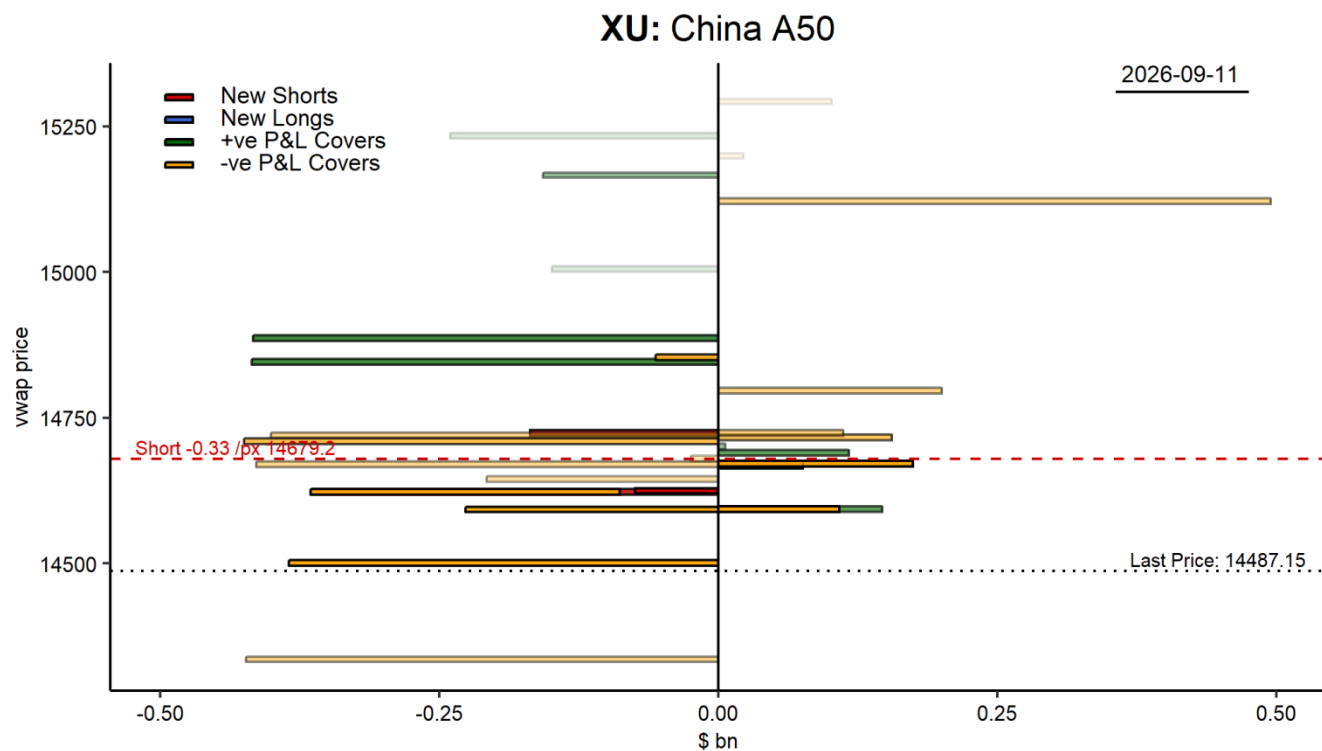
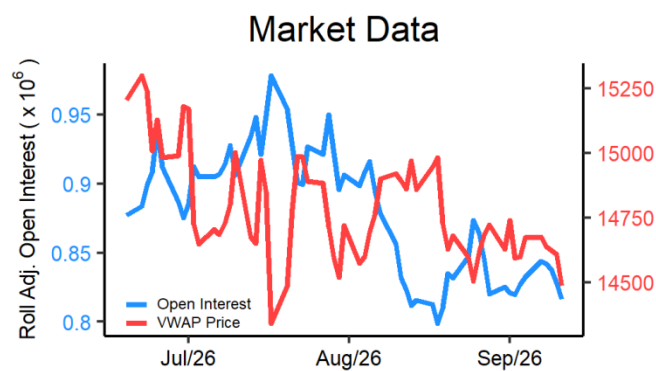
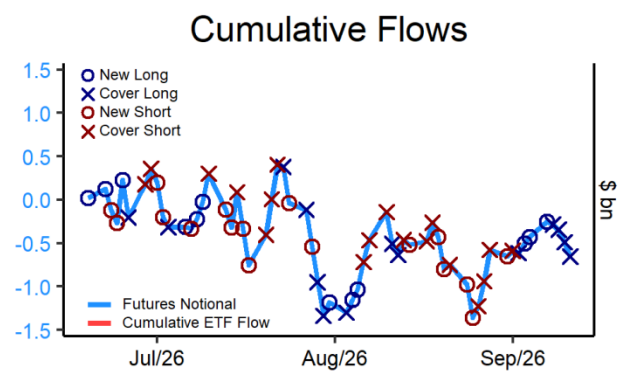
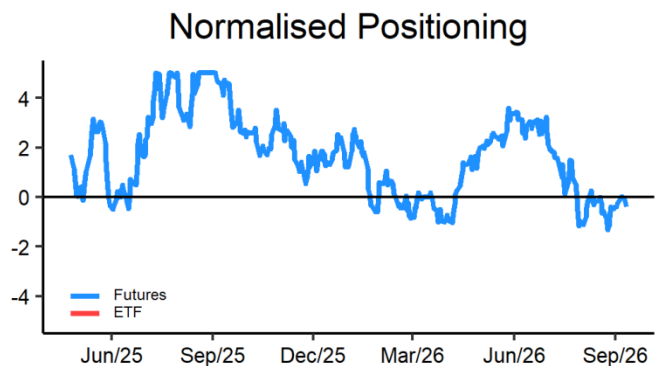
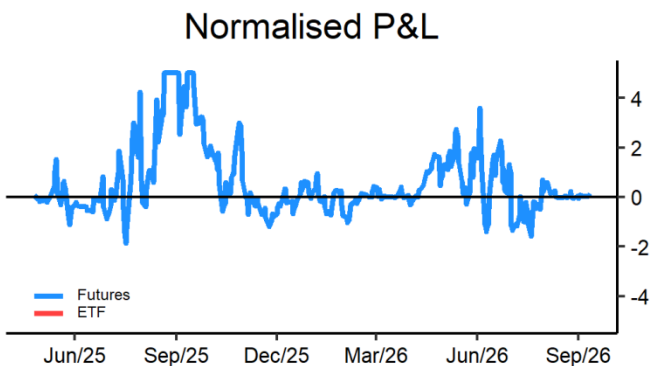


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Source: Citi Research, Bloomberg

China A50

Figure 28. A50 contracts (XU) - position snapshot and time-series



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The Equity Markets Positioning Model – Methodology

The aim of the Equity Markets Positioning Model (EMP) is to provide information on current equity market positioning and how this might influence subsequent price action. It allows readers to ‘visualize’ the investor exposures in equity futures across multiple markets in order to:

- Quantify the current market positioning and profitability;
- Identify extreme market positions;
- Categorize periods in which price action will be dominated by positioning;

The model calculates a ‘headline’ positioning score between -5 to 5 and provides a visualization of the current and past market.

How does the model work?

At a micro scale, price action is dominated by the size, level and speed at which investors choose to execute trades with other financial intermediaries. Buy/sell orders can clearly drive prices higher or lower and the EMP attempts to quantify these flows in order to understand the market direction and motivation.

This is a grand ambition, since there is no one market participant who holds a complete view of all market flows and we are only analyzing and aggregating futures trading to extrapolate the positioning across the whole market (i.e. including all cash trading). Based on this information we estimate:

- Market positioning: What is the outstanding market positioning (i.e. has there been net buying or selling recent history)? At what price and size were these trades executed?
- Market P&L: What is the unrealized profit or loss within the market (given the current outstanding market positioning)? When is this a motivation for investors to risk manage their positions?

We recognize that there are limits to this analysis – incomplete trade visibility, opaque instruments and unknown investor trading strategies create uncertainty in the ‘true’ picture of high-level equity market positioning.

The EMP model calculates the historical equity market positioning (over the last 3mths) and the associated unrealized P&L for the main markets around the world. A breakdown of the assets and contracts used in the EMP are presented in Figure 29 and calculation methodologies are outlined below.

Figure 29. Equity Markets covered by EMP Model

Country/Region	Index	Futures Ticker	ETF Flows
US	S&P 500	ES	Yes
US Tech	Nasdaq 100	NQ	Yes
US SMID	Russell 2000	RTY	No
Europe	Eurostoxx 50	VG	Yes
Germany	DAX 40	GX	Yes
U.K.	FTSE 100	Z	Yes
European Banks	SX7E	CA	Yes
Australia	S&P ASX 200	XP	No
Japan	Nikkei 225	NI	Yes
EAFE	MSCI ex-US	MFS	No
Emerging Markets	MSCI EM	MES	Yes
Korea	KOSPI 200	KM	No
Hong Kong	Hang Seng	HI	No
China	A50	XU	No

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Source: Citi Research

Positioning Calculations

The model identifies an objective subset of positions entered into (or closed) on a given day and classify these as being the relevant marginal long or short positions that determined (being the 'aggressor') the price move that day. In the report and in our analysis we will simply refer to these positions as longs, shorts and net position but they will always be a reference to this concept of a marginal positioning. This presumption then is that this subset of marginal positions are the most price sensitive, i.e. more likely to generate new flows (e.g. profit taking or squeezes) in response to future price moves.

In practice the model uses public trade activity data on the exchange traded futures contracts which is available daily. Naturally, net positioning is always zero for s, since the exchange matches buyers and sellers and creates and cancels contracts as necessary. However, by tracking the daily changes in overall open interest (the number of contracts after the exchange create or cancels contracts) and combining that measure with the change in price we can make a classification for the marginal positioning change on that day as set out in Figure 30.

The change in open interest is taken to be the relevant marginal subset of positions that day and together with the change in price we determine whether to consider it a change in long or short positions.

Figure 30. Positioning Matrix for Futures Markets

		Open Interest	
		Increasing	Decreasing
Daily Prices	Increasing	New Longs Rising prices and increasing open interest implies the 'aggressor' is the buyer pushing the market higher	Cover Shorts Rising prices and decreasing open interest implies the 'aggressor' is covering shorts (i.e. buying into the rally)
	Decreasing	New Shorts Falling prices and increasing open interest implies the 'aggressor' is the seller pushing the market lower	Cover Longs Falling prices and decreasing open interest implies the 'aggressor' is covering longs (i.e. selling into the sell-off)

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Source: Citi Research

Performing this analysis on a day-by-day basis creates a ‘trade activity’ history over a three-month period which can be converted into a snapshot of cumulative positioning and unrealized P&L. To illustrate the methodology, it is useful to look at a worked example. In Figure 31, we present these calculations for S&P 500 futures in early March 2020.

In this period, open interest increased and prices fell, suggesting an increase in the short investor base. The model shows numerous days where new short positions have been opened and relatively few where longs positions have been established, in addition to covering for some long and short positions. At the end of the period the cumulative uncovered positions and P&L is a simple the sum of the outstanding positions / P&L (see “total” in Figure 31 – cumulative positions equate to -459,041 contracts and 868mIn of unrealized P&L).

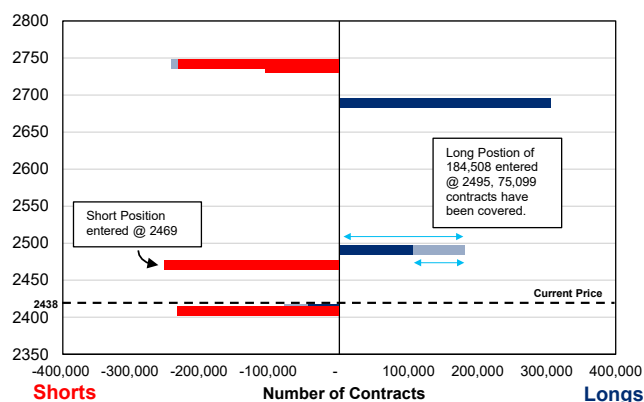
This positioning can be visualized as a horizontal bar graph ordered by price (see Figure 32). It can be clearly seen that the shorts were centered around 2740-2750 and the positions were significantly in the money. This contrasts with the big long position at 2696 which with a falling market was losing position. This snapshot of positioning can be summarized by the cumulative position unrealized P&L levels.

Figure 31. Example of positioning for S&P500 during March 2020

Date	Trade Price	Open Interest	Delta Price	Delta Interest	Trade Activity	Contract Buy/Sell	Cum. Pos.	P&L Snapshot (\$ mil)
06-Mar	2964.0	3,213,000						
09-Mar	2747.8	3,442,251	-7.3%	229,251	New Short	-229,251	-229,251	3,551
10-Mar	2865.8	3,438,501	4.3%	-3,750	Cover Short	3,750	-225,501	-58
11-Mar	2740.3	3,549,717	-4.4%	111,216	New Short	-111,216	-336,717	1,681
12-Mar	2469.0	3,808,784	-9.9%	259,067	New Short	-259,067	-595,784	402
13-Mar	2696.0	4,124,586	9.2%	315,802	New Long	315,802	-279,982	-4,074
16-Mar	2416.3	4,369,586	-10.4%	245,000	New Short	-245,000	-524,982	-266
17-Mar	2495.5	4,554,094	3.3%	184,508	New Long	184,508	-340,474	-531
18-Mar	2414.0	4,628,421	-3.3%	74,327	New Short	-74,327	-414,801	-89
19-Mar	2403.3	4,553,322	-0.4%	-75,099	Cover Long	-75,099	-489,900	216
20-Mar	2438.0	4,522,463	1.4%	-30,859	Cover Short	30,859	-459,041	37
Total							-459,041	868

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Source: Citi Research

Figure 32. Example visualization of positioning



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In EMP, the daily volume weighted average price (VWAP) is used in the calculations (rather than closing prices), since it creates more robust results. In addition, the EMP model chooses to cover trades that have the maximum economic impact (i.e. trades with the largest gains or losses are closed out first). However, in every other aspect, the methodology is identical to the one presented above.

Finally, the reported numbers in the EMP model are normalised into a range from -5 to +5 (representing large shorts / losses to large longs / profits) in order to compare across asset / instruments.

What output is generated by EMP?

The EMP model provides a snapshot of the current positioning (see Figure 33 to Figure 35). These tables summarize the outstanding exposure and unrealized P&L (for a 3mth period in both futures and ETFs).

Typical output is shown in Figure 33 for cross equity market positioning in futures. In this illustration, investors are currently neutral to net short Eurostoxx 50 contracts, which has decreased from a net long position of the past 3 months. This is in contrast to MSCI EM futures where investors are sitting on profitable positions.

Figure 33. Example of Equity Market Positioning and PnL

All metrics in table are normalised between +5 and -5

Investors currently net long S&P 500 Emini futures

Investors currently neutral to net short EuroStoxx 50

(\$bn) 03/09/2020		S&P 500	DAX	FTSE 100	ESToxx50	Nasdaq	Nikkei	MSCI World x-US	MSCI EM
		ES	GX	Z	VG	NQ	NI	MFS	MES
Normalised Scores (-5 / +5)									
Positioning	Future	1.7	-0.1	1.0	-0.0	4.8	1.1	-0.7	2.0
	ETF	3.0	1.4	-0.6	0.9	3.6	1.0		1.1
	3m Net Pos	2.3	0.7	0.2	0.4	4.2	1.1	-0.7	1.6
	1w Change	0.4	0.2	0.3	0.3	-0.3	0.3	-0.4	-0.3
P&L	Future	1.2	-0.1	-0.7	-0.0	4.8	0.5	0.1	1.8
	ETF	3.7	1.9	-0.5	1.1	3.9	1.3		1.4
	3m Net PnL	2.5	0.9	-0.6	0.5	4.4	0.9	0.1	1.6
	1w Change	0.3	0.3	-0.0	0.3	-0.4	0.3	0.0	-1.1

Investors are sitting on profitable positions in MSCI EM.

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Source: Citi Research

In addition, we further breakdown market positioning by analyzing both long and short positions, the average entry price and the position relative to trading over the past three months (Figure 34).

Figure 34. Example of Breakdown of Market Positioning – Not Current

Net Notional = Longs minus Shorts (in \$blns)

Percentile refers to positioning relative to past 3 years

% Offside refers to what percentage of shorts are below Ref price – indicates risk of short squeeze if market rallies. Opposite for Longs

		S&P 500	DAX	FTSE 100	ESTOxx50	Nasdaq	Nikkei	MSCI World x-US	MSCI EM
(\$bn)	03/09/2020	ES	GX	Z	VG	NQ	NI	MFS	MES
Futures	Net Notional	31.7	-0.1	2.4	-0.4	10.8	1.2	-1.1	6.4
	Percentile	67%	36%	53%	33%	99%	64%	11%	75%
Shorts	Notional	-7.5	-1.3	-3.9	-1.4	-1.6	-1.1	-2.7	-0.7
	Percentile	24%	37%	81%	24%	28%	20%	80%	21%
	Avg. Entry	3,246	12,994	6,116	3,316	10,993	22,959	1,890	1,089
	% offside	100%	100%	3%	100%	100%	100%	32%	89%
Longs	Notional	39.2	1.2	6.3	0.9	12.4	2.3	1.6	7.0
	Percentile	57%	18%	72%	10%	99%	25%	18%	67%
	Avg. Entry	3,337	13,068	6,096	3,311	11,166	22,889	1,893	1,051
	% offside	13%	0%	100%	0%	18%	0%	60%	38%
	Ref Price	3,463	13,304	5,909	3,366	11,803	23,490	1,878	1,094
Activity	1-day	-2.6	-0.2	0.0	-0.1	-0.9	0.3	0.0	0.0
	Type	longs	shorts	longs	shorts	longs	longs	shorts	shorts
	1-week	4.2	0.1	0.1	-0.5	-0.4	0.1	-0.7	0.5

Average entry price over past 3 months

1 day trading activity in \$blns. Negative (positive) means risks is being cut (added)

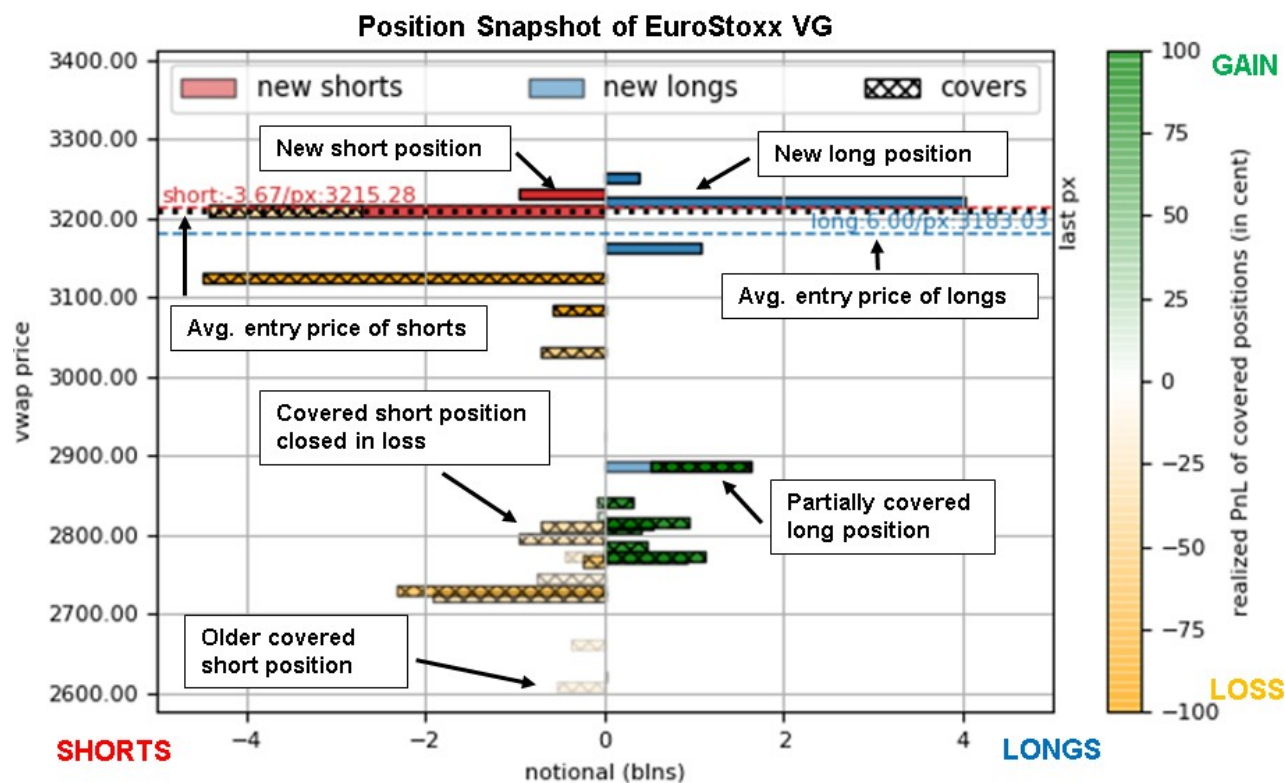
Defines what side the risk is being traded

1 week cumulative trading flow

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Source: Citi Research

Lastly, a complete visualization of the positioning is presented in Figure 35. This shows the current positioning ordered by VWAP prices over a 3-month period. The bars in the chart illustrate the level at which trades were executed (red = short positions and blue = long positions). The lighter bars imply older trade activity. When a trade is covered the bar is hashed with XXX and the color of the shading represents if it was covered at a gain or loss (yellow=loss, green=gain). The horizontal red and blue dotted lines show the respective average entry price of contracts over the past three months.

Figure 35. Example Snapshot of Position in EuroStoxx Futures – Not Current



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Source: Citi Research

What it means for Cash Equities

Although traditionally used as a hedge, futures are also used by investors for taking an outright view on markets. This becomes increasingly relevant when futures positioning is extended. We explore this content in greater detail in [Regime Modelling using Futures Positioning: Futures vs. Cash – A Distant but Meaningful Relationship](#), which explores the interplay between futures positioning and behavior seen in underlying cash markets.

Previously Published Research

Figure 36. Research Reports (since 2009)

Date	Research Theme	Report Link
20-Oct-25	Allocation	Searching for Alpha: What can Mutual Fund Flows tell us about Future Stock and Sector Returns?
29-Sep-25	Factor	What Works in Equity Markets: Misguided by Factor Betas
04-Sep-25	Rotation	What Works in Equity Markets: Style Factor Performance and High Macro Risk Environments
01-May-25	Positioning	What Works in Equity Markets: Does Crowding Outperformance Outweigh Crash Risk?
23-Apr-25	Rotation	Searching for Alpha – Style Rotation: Using Mutual Fund Flows to Predict Style Returns
05-Dec-24	Factor	Searching for Alpha – Stock Selection and Enhanced Growth Strategies with Option-Implied Volatility
29-Oct-24	Allocation	Searching for Alpha – Macro Sector Selection – Using Macro Regimes & News Sentiment to Forecast Sector Returns
27-Aug-24	Positioning	Measuring the Crowded Trade in Global Equities News Sentiment, Factor Crowding & Extended Coverage
20-Aug-24	Misc.	Global Risk Attribute Model: A Framework for Equity Macro Risk Analysis
10-Apr-24	Misc	Searching for Alpha – European Industry-Specific Return Drivers
11-Jan-24	Allocation	Searching for Alpha – Are PMIs Leading or Misleading?
04-Dec-23	Factor	Searching for Alpha: Leveraging Option Information to Improve Factor Performance
26-Sep-23	Allocation	Searching for Alpha: Macro Regimes and Systematic Equity Investing
10-Aug-23	Allocation	Searching for Alpha: Exposure to Macro via Equities
26-Jun-23	Positioning	Measuring the Crowded Trade in Global Equities: Introducing our Short Stock Crowding Model
16-May-23	Machine Learning	Searching for Alpha: From Machine Learning to Stock Screens – A Rulefit Model
24-Mar-23	Factor	Searching for Alpha: A Bottom-Up Approach to Evaluating Market Overbought/Oversold Conditions
20-Jan-23	Factor	What Works in Equity Markets: The Enduring Appeal of Income Investing
13-Jan-23	Factor	What Works in Equity Markets: Return on Equity, a different perspective through Revisions
07-Nov-22	Event	Searching for Alpha: Systematic M&A Strategies that Outperform Discretionary Event-Driven Approaches
26-Oct-22	Allocation	What Works in Equity Markets: Sector Selection – A Bottom-up, Factor Approach
09-Jun-22	Event	Searching for Alpha: M&A – Identifying Potential Takeover Targets
24-Feb-22	Event	What Works in Equity Markets: Buy Backs – Back in Vogue
26-Jul-21	Factor	What Works in Equity Markets: Risky Value vs. Quality Value Revisited
26-Jul-21	Machine Learning	Searching for Alpha: Practical Considerations in Building Neural Networks for Stock Selection
22-Jul-21	ESG	ESG Insights: Indexed ESG Funds – A Widespread Implementation Choice
22-Jun-21	Factor	Searching for Alpha: Go with the Stock Connect Flow, for a Sharpe of 4
18-Jun-21	Factor	Searching for Alpha: Overlaying Price Mo. and Short Interest to avoid drawdowns and improve returns
15-Jun-21	ESG	ESG Insights: ESG Fundamental Characteristics
13-Apr-21	ESG	ESG Insights: Following the ESG Herd: Has ESG become a Crowded Trade?
29-Mar-21	Machine Learning	Searching for Alpha: Pairs Trading: Applying Machine Learning to Pairs Trading
09-Mar-21	Positioning	Regime Modelling using Futures Positioning: Futures vs. Cash – A Distant but Meaningful Relationship
18-Feb-21	ESG	ESG Insights: The ESG ‘Premium’: How does ESG compare to other Factors?
01-Feb-21	Event	Searching for Alpha: Asia Earnings Surprise: Predicting Asia Earnings Surprises
14-Jan-21	ESG	ESG Insights: Where Machines do it Better: Inferred ESG Ratings Data
30-Oct-20	Factor	Searching for Alpha: China A Alpha – Smoothing Price Momentum
16-Oct-20	Factor	Under the Microscope: Overlapping Momentum
14-Sep-20	Positioning	Equity Markets Positioning Model: Introducing the EMP
11-Sep-20	Factor	Searching for Alpha: Combining ESG and Risk Premia Investment: A Double Screen Approach
08-Sep-20	Factor	Searching for Alpha: Factoring Short Interest: Measuring and Profiting from Information in Shorts
28-May-20	Machine Learning	Searching for Alpha: Machine Learning – SHAP Value as Factor Selection Criterion
28-Feb-20	Machine Learning	Searching for Alpha: Machine Learning: Leveraging Return Forecasts
21-Feb-20	Factor	Searching for Alpha: China A Alpha – Sector-rel. Value Is Powerful, Choose Sector Mappings Wisely
03-Oct-19	Machine Learning	Searching for Alpha: Machine Learning: Beyond Random Forest for Stock Selection
23-Sep-19	Event	Searching for Alpha: Earnings Surprise: Managing Expectations
05-Mar-19	Machine Learning	Searching For Alpha: Machine Learning: Interpreting Machine Learning Predictions
07-Feb-19	Misc	Searching for Alpha: GAAP vs. Non-GAAP: Which Earnings does the Market Price?
21-Nov-18	Positioning	Searching for Alpha: Style Crowding in Asia: Getting Ahead of the Crowd
17-Sep-18	Event	Searching for Alpha: Earnings Surprise: Using ML to Forecast Earnings Surprises & Returns
13-Sep-18	ESG	Searching for Alpha: The ESG Edge: ESG Investing – A Step Forward
03-Sep-18	Machine Learning	Searching For Alpha: Machine Learning: Interacting Machine Learning and Factors
03-May-18	Positioning	Measuring the Crowded Trade: Introduction to our Crowding Composite for individual stocks
14-Mar-18	Factor	Searching for Alpha: Profiting from Capex: Look To Capex Announcements
07-Sep-17	Rotation	Searching for Alpha: Tactical Style Rotation: Using Risk and Return to Manage Style Exposure
10-Mar-17	Misc	Searching for Alpha: Big Data: Navigating New Alternative Datasets
13-Feb-17	Factor	Searching for Alpha: Betting Against (Accurate) Beta
19-Sep-16	Factor	Searching for Alpha: Competitive Advantage: Survival of the Fittest
09-Sep-16	Factor	Searching for Alpha: Financial Strength Redux
14-Apr-16	Rotation	Searching for Alpha: Dynamic Style Weighting: Risk-Based Equity Style Allocation
04-Mar-16	Smart Beta	Long-Only Pure Style Portfolios: No Shorts Please
18-Feb-16	Factor	Industry Alpha Insights: Banks: One Size Does Not Fit All
21-Sep-15	Factor	Under the Microscope: Stock Momentum Conflation
15-Sep-15	Allocation	Searching for Alpha: Macro Moves Markets: Economic Data, Expectations and Market Pricing
06-Aug-15	Misc	Normalising for Style Factor Composites: Reviewing alternative solutions for constructing style composites
23-Mar-15	Rotation	Searching for Alpha: Style Timing: Style Performance, Trading Volumes and Investor Agreement
13-Mar-15	Misc	World Radar Screen: Refining Our Global Search for Alpha
18-Feb-15	Factor	Searching for Alpha: Networking with Analysts: Modelling Analyst Forecast Dependence
01-Oct-14	Smart Beta	The Rise of Low Risk Investing: Is It Getting Crowded Out There?
27-Mar-14	Factor	Under the Microscope: Five Innovations In Momentum Investing
07-Mar-14	Factor	Searching for Alpha: Timing Price Momentum: When Does Momentum Move?
27-Nov-13	Smart Beta	Equity Risk Premia Investing: A New Methodology for Monitoring Style Performance
23-Jul-13	Allocation	Stock Market Country Selection: Changes to a Well-Established Model

02-Jul-13	Factor	Searching For Alpha: Digging For Dividends: QUARI - QUality with A Reliable Income
24-Jun-13	Misc	Global Theme Machine: An Objective Way of Identifying Attractive Investment Themes
25-Mar-13	Factor	Searching for Alpha: Purifying Analyst Recommendations: Removing Beta to get to the Alpha
06-Nov-12	Factor	Searching for Alpha: Tangible Benefits of Intangibles: Brand, Respect & Intellectual Capital
09-Mar-12	Smart Beta	Low-Risk Portfolio Strategies: Sharpe Ratio Maximisation and Multi-Asset Applications
28-Feb-12	Rotation	Macro Risk and Style Rotation: A Guide Rather than a Prescription
14-Sep-11	Factor	Searching for Alpha: Accruals Volatility - A New Approach to Quality Investing
24-Aug-11	Allocation	Industry Alpha Insights: Four Approaches to Tactical Industry Selection
17-Mar-11	Misc	Industry Alpha Insights: Quantifying Industry-Specific Fundamentals
18-Nov-10	Smart Beta	Low-Risk Equity Portfolios: More than just Minimum Variance
15-Nov-10	Allocation	Under the Microscope: Measuring Systemic Risk - The Absorption Ratio
14-Jun-10	Factor	Under the Microscope: Optionality in Valuation
31-Mar-10	Event	Searching for Alpha: Earnings Surprise: Still Profiting from Surprises
29-Jan-10	Factor	Momentum in Japan: Looking at Price, Trading Values and Earnings
15-Oct-09	Rotation	Searching for Alpha: Style Rotation: Optimising Style Rotation Strategies

Source: Citi Research

Citi Quant Research Team

Figure 37. Citi Quantitative Research Teams (For Informational Purposes Only)

Global Quantitative Research

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Appendix A-1

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Data current as of 01 Jul 2026	12 Month Rating			Catalyst Watch		
	Buy	Hold	Sell	Buy	Hold	Sell
Citi Research Global Fundamental Coverage (Neutral=Hold)	61%	32%	7%	36%	48%	16%
% of companies in each rating category that are investment banking clients	38%	42%	27%	42%	37%	36%
Citi Research Quantitative World Radar Screen Model Coverage	30%	40%	30%			
% of companies in each rating category that are investment banking clients	24%	16%	16%			
Citi Research Quantitative Latam Radar Screen Model Coverage	23%	57%	21%			
% of companies in each rating category that are investment banking clients	39%	40%	43%			
Citi Research Quantitative Asia Radar Screen Model Coverage	20%	60%	20%			
% of companies in each rating category that are investment banking clients	26%	10%	7%			
Citi Research Quantitative Australia Radar Screen Model Coverage	41%	0%	59%			

% of companies in each rating category that are investment banking clients	35%	0%	4%
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