ECB Foreign Exchange Contact Group

Review of recent markets developments and outlook

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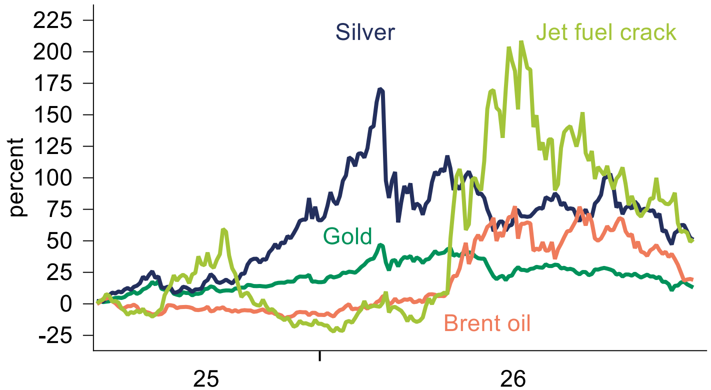
BNP PARIBAS

The bank for a changing world

Please refer to important information at the end of the report and MAR disclosures

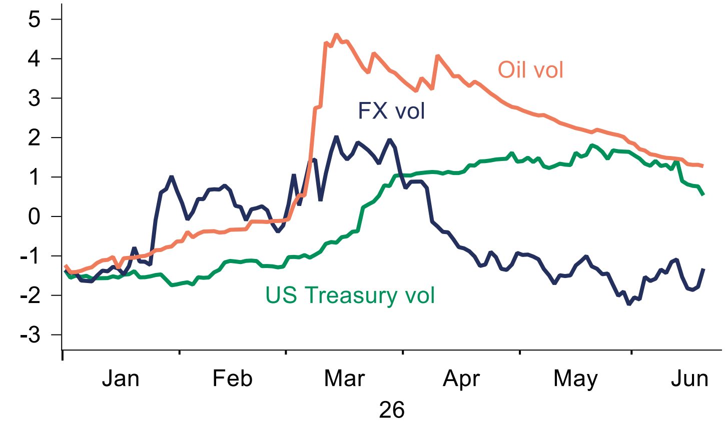
FX is driven by capital flows not trade flows

Rising geopolitical risks have caused huge volatility for precious metals and energy markets



Sources: Macrobond, Bloomberg, BNP Paribas

Elevated vol in commodities has led to an elevated vol in rates while FX vol remained relatively subdued

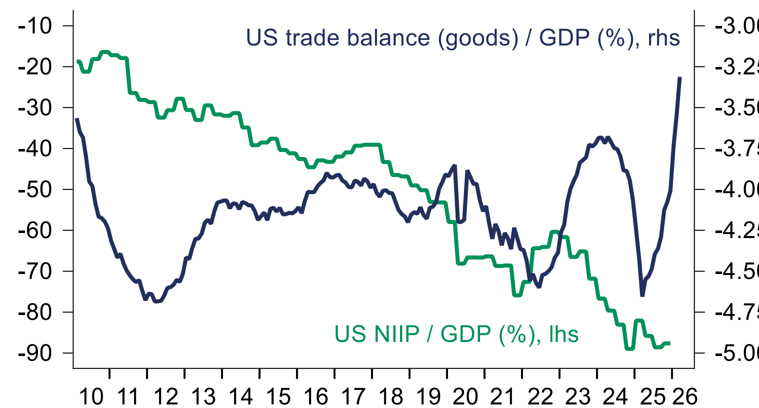


Notes: The vol levels are shown as 6m rolling z-scores for realized volatility
Sources: Macrobond, Bloomberg, BNP Paribas

FX remained range bound with flows dominating the price action

Sources: Bloomberg, Macrobond, BNP Paribas

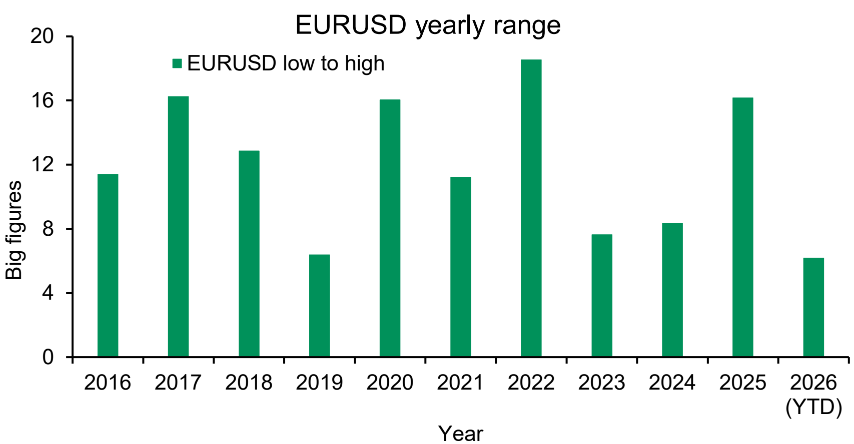
While the trade balance has improved, USD still needs large inflows due to large unhedged USD holdings of the global economy



Sources: Bloomberg, Macrobond, BNP Paribas

FX has remained in a range this year which has weighed on volatility

FX has been in a tight range so far this year

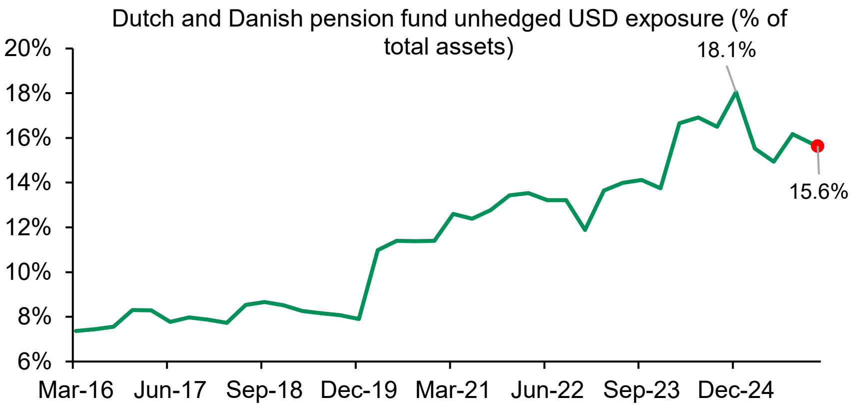


Sources: Bloomberg, BNP Paribas

Sources: Bloomberg, Macrobond, BNP Paribas

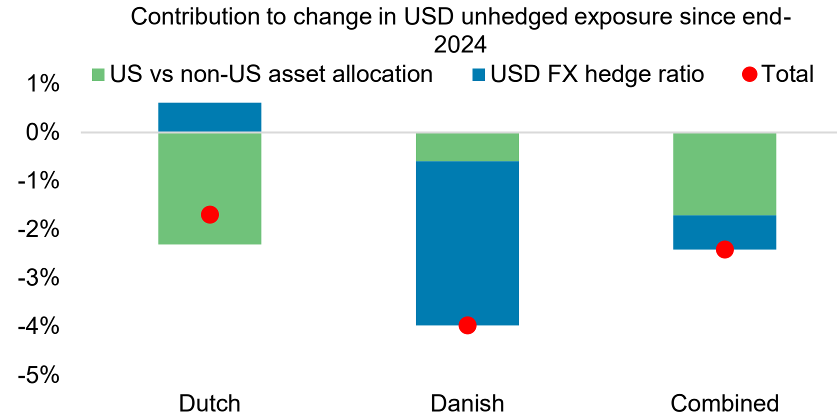
Eurozone hedge ratios

Dutch and Danish pension fund unhedged USD exposure has fallen slightly versus pre-2025



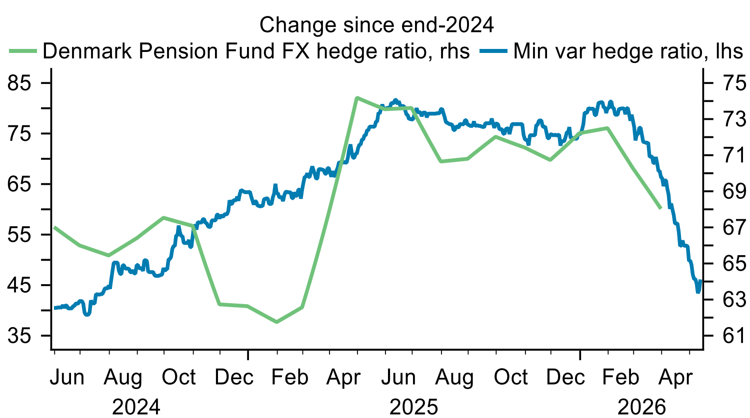
Sources: DNB, Central Bank of Denmark, Macrobond, BNP Paribas

Dutch investors reduced unhedged USD exposure by reducing their US asset allocation; Danish funds did so by increasing FX hedge ratios



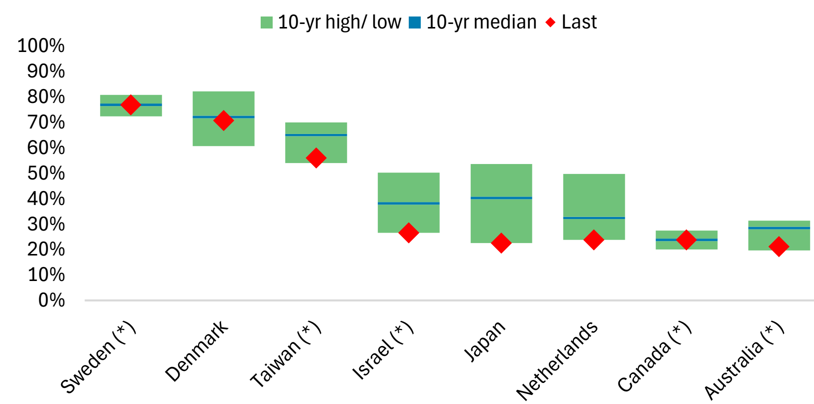
Sources: DNB, Central Bank of Denmark, Macrobond, BNP Paribas

The shift in FX-equity correlations during the energy shock implies a reduced incentive to FX hedge



Sources: DNB, Central Bank of Denmark, Macrobond, BNP Paribas

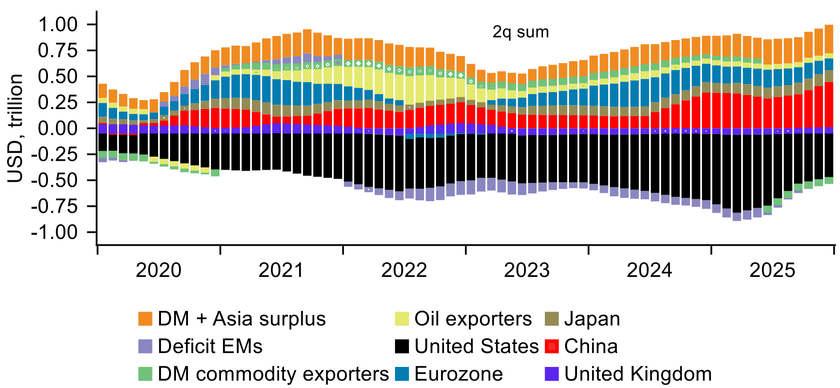
Institutional investor USD asset FX hedge ratio, overview



(*) FX hedge ratio on all foreign assets, as the USD split is unknown. Sources: Australian Prudential Regulation Authority, Bank of Israel, Fund reports, De Nederlandsche Bank, Central Bank of Denmark, BNP Paribas

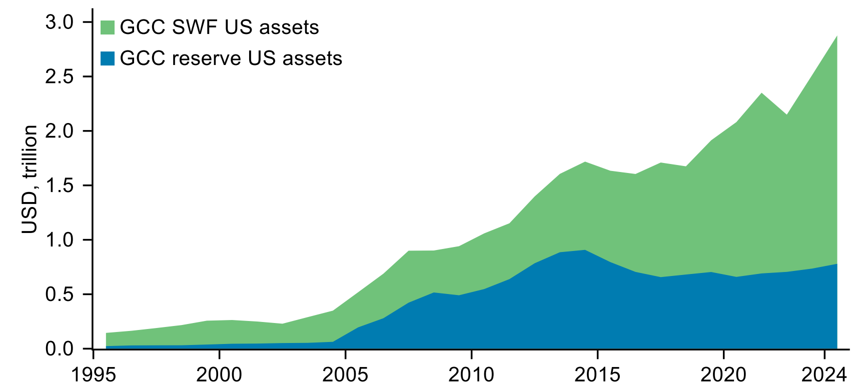
Oil exporter flows and non-USD energy trade

Oil exporter current account surplus



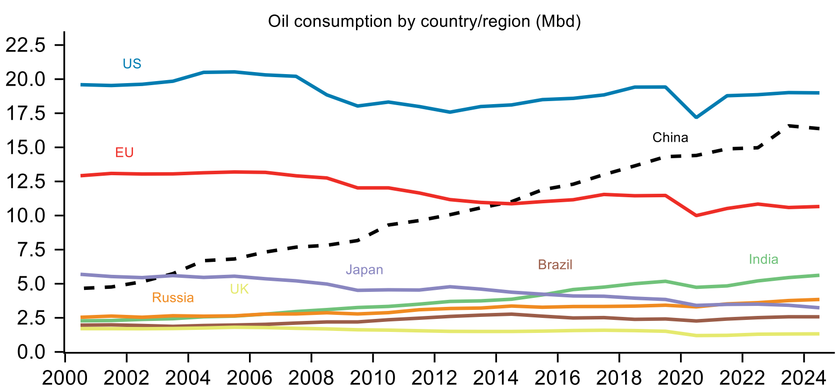
Sources; Statistics Norway, CBRF, Saudi Central Bank, Central bank of Kuwait, Central Bank of Qatar, Central Bank of Bahrain, Central bank of Oman, UNCTAD

GCC US asset holdings breakdown (estimate)



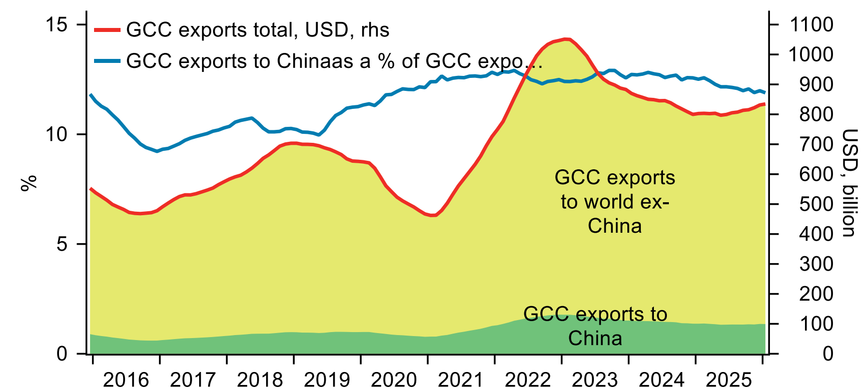
We assume that 100% of reserves are in US assets and SWF US assets are 55% of outward portfolio investment position, based on allocations reported by Saudi Arabia Public Investment Fund and Abu Dhabi Investment Authority. Sources: Hutchins Center on Fiscal and Monetary Policy, BNP Paribas

China's rising share of global oil consumption



Sources: Macrobond, BNP Paribas

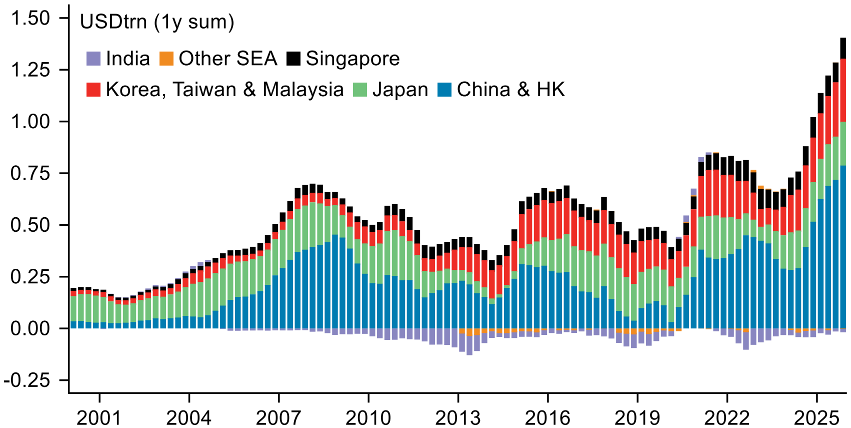
GCC exports to China amounted to USD100bn in 2025



Sources: Macrobond, BNP Paribas

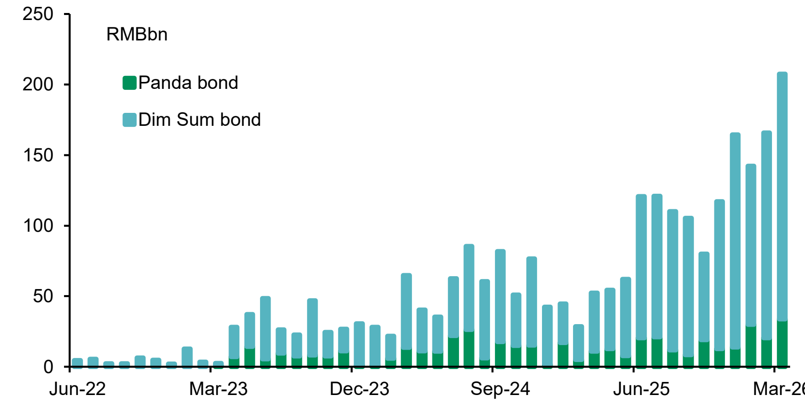
China's capital account is opening with rising current account surplus

Asian current account surpluses



Sources: Macrobond, Bloomberg, BNP Paribas

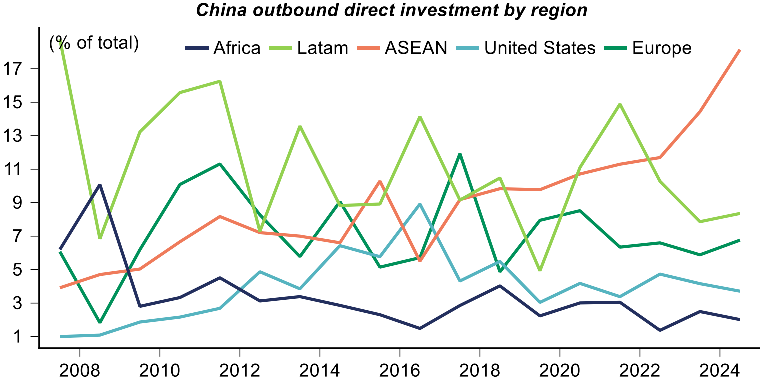
Panda and Dim Sum bond issuance



Sources: WIND, BNP Paribas

Geopolitical risks could stifle Chinese ODI

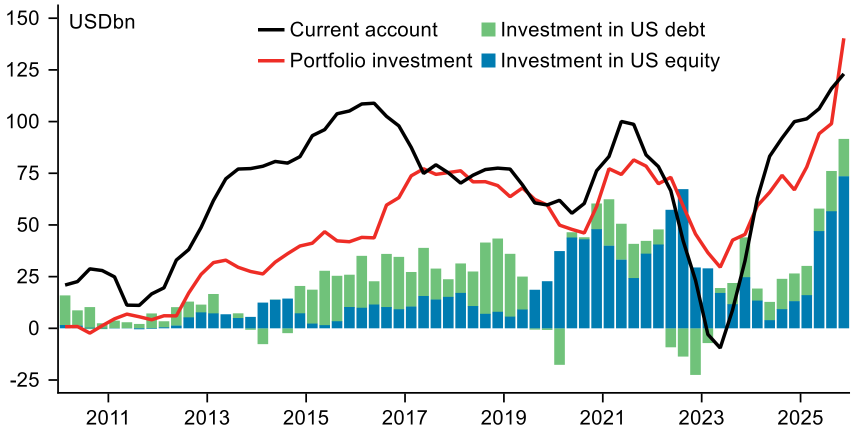
China outbound direct investment by region



Sources: Macrobond, BNP Paribas

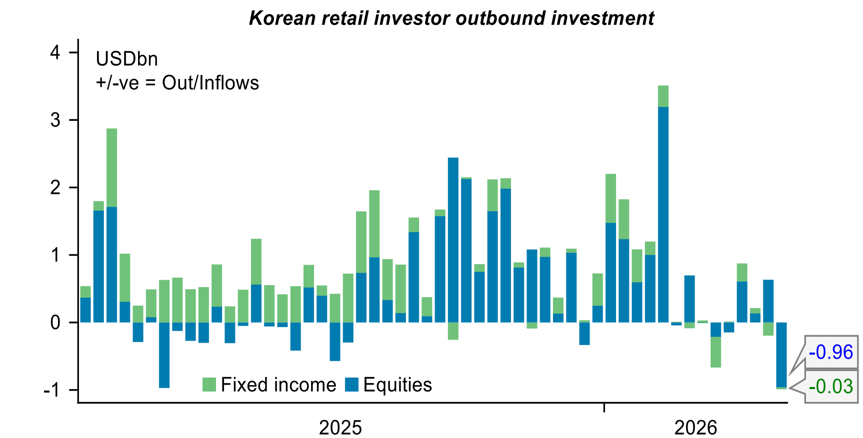
South Korea refocuses on domestic assets

South Korea has mainly recycled its current account surplus into outbound portfolio investment



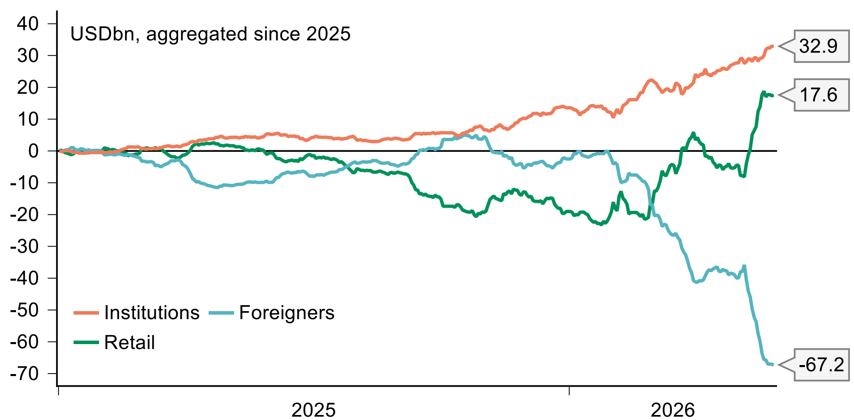
Sources: Macrobond, Bloomberg, BNP Paribas

Retail outbound investment is showing signs of repatriation, while NPS currently remains overweighted USD for its overseas portfolio



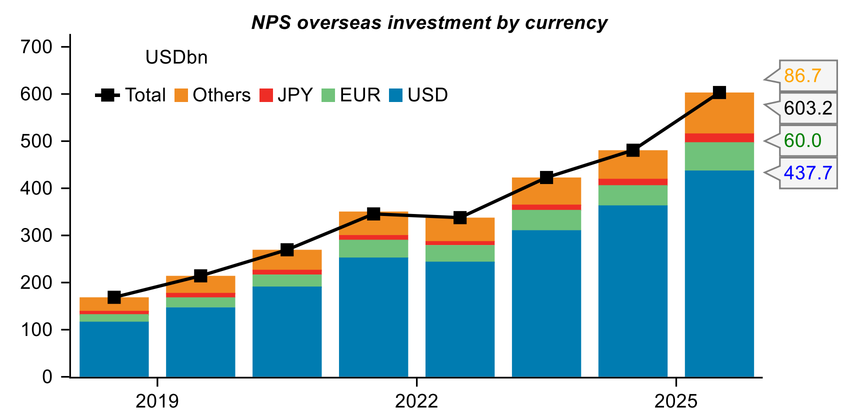
Sources: Seibro, NPS, BNP Paribas

Foreign investor Kospi rebalancing may be keeping USDKRW supported



Sources: Macrobond, Bloomberg, BNP Paribas

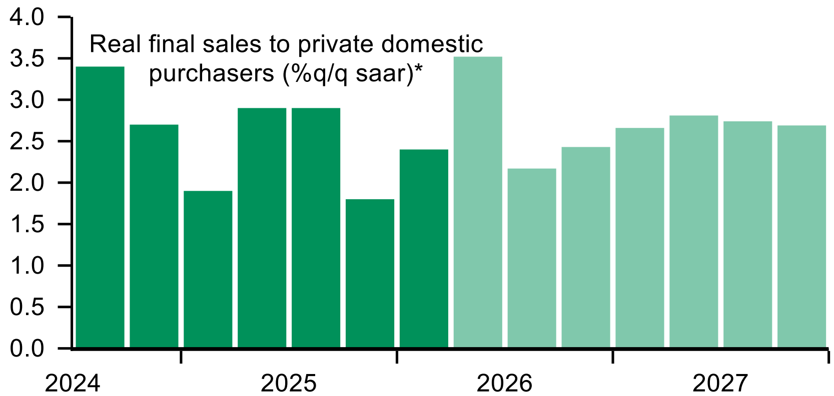
NPS currently remains overweighted USD for its overseas portfolio



Sources: Macrobond, Bloomberg, BNP Paribas

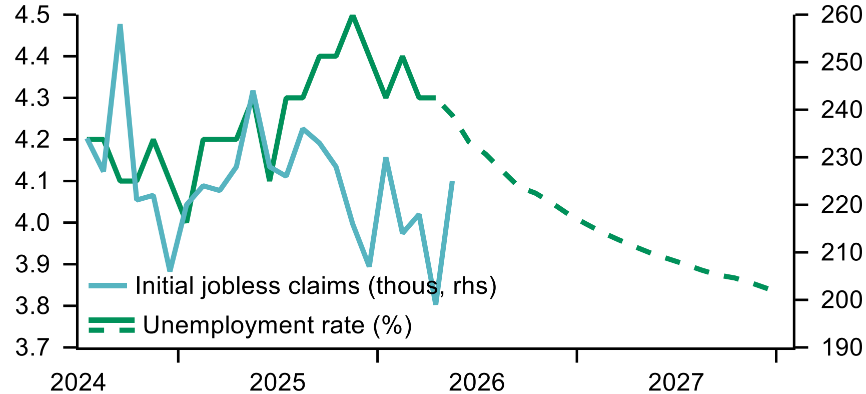
FED : Market is now pricing 50 bps hike

“Core” economic growth has proved remarkably stable



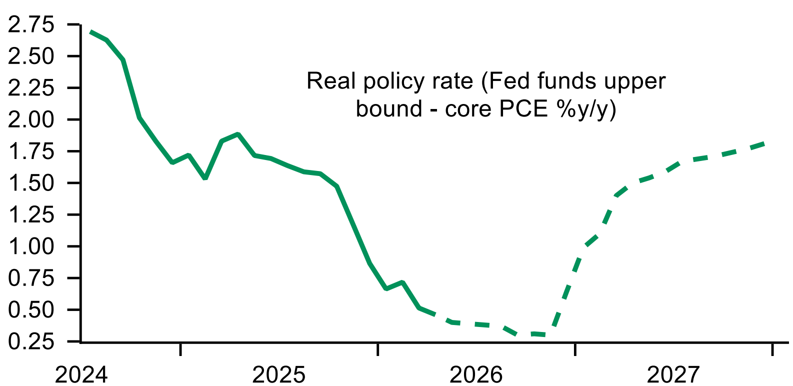
*GDP minus government spending, net exports, and changes in private inventories
Sources: BEA, Macrobond, BNP Paribas

We now expect the unemployment rate to decline



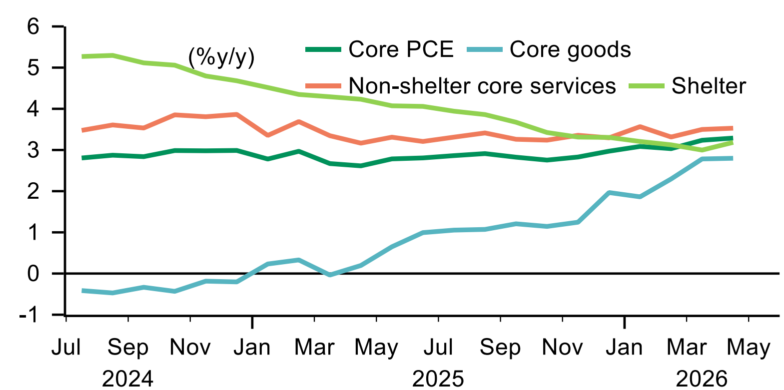
Sources: BLS, DOL, Macrobond, BNP Paribas

The real policy rate is lower than the Fed likely expected



Sources: BEA, FRS, Macrobond, BNP Paribas

Inflation has remained persistently high



Sources: BEA, Macrobond, BNP Paribas

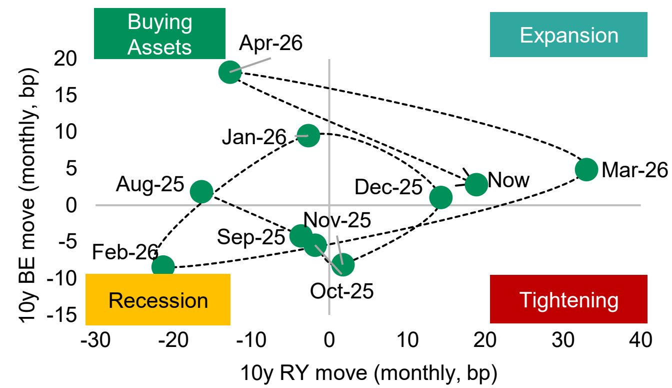
Transitioning to a tightening regime & FX impact ?

Sharpe ratio of FX pairs under BERT regimes

	B	E	R	T
EUR	2.1	-0.7	-0.9	-0.8
NOK	2.6	-0.1	-1.3	-1.8
GBP	1.7	-0.1	-1.2	-1.1
CHF	1.9	-0.8	0.3	-1.0
JPY	1.5	-2.5	2.2	-1.2
CAD	1.8	0.1	-1.4	-0.8
SEK	1.9	-0.7	-0.9	-1.0
AUD	3.1	-0.8	-1.0	-1.2
NZD	2.8	-0.6	-0.9	-1.2
CNH	1.3	-0.8	0.5	-1.2
SGD	3.1	-1.1	-0.2	-1.1
PHP	1.6	-0.6	-0.6	-1.3
THB	1.6	-0.8	0.6	-1.3
MYR	2.1	-1.0	-0.1	-1.4
IDR	1.0	-1.2	-0.5	-1.2
KRW	1.9	-1.4	-0.9	-0.8
INR	0.9	-0.7	-1.2	-1.3
TWD	1.8	-0.7	0.0	-1.2
HUF	1.8	-0.6	-1.0	-0.7
PLN	2.3	-0.7	-1.1	-0.4
ZAR	1.2	-0.2	-1.3	-1.0
CZK	2.3	-0.6	-1.0	-0.6
ILS	1.7	-0.2	0.0	-0.6
BRL	2.0	-0.3	-1.6	-1.1
PEN	0.4	-0.7	0.0	-0.3
COP	1.1	-0.2	-1.0	-0.8
CLP	1.5	-0.9	-0.5	-1.0
MXN	1.5	0.1	-1.2	-0.8

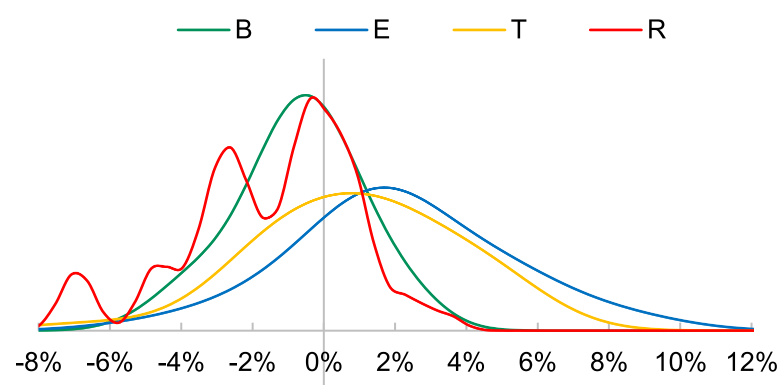
Sharpe ratio is the annualised Sharpe ratio based on monthly returns in all instances of market trading under each regime.
Sources; Bloomberg, BNP Paribas

BERT framework: Markets not yet pricing a Tightening regime



Sources; Bloomberg, BNP Paribas

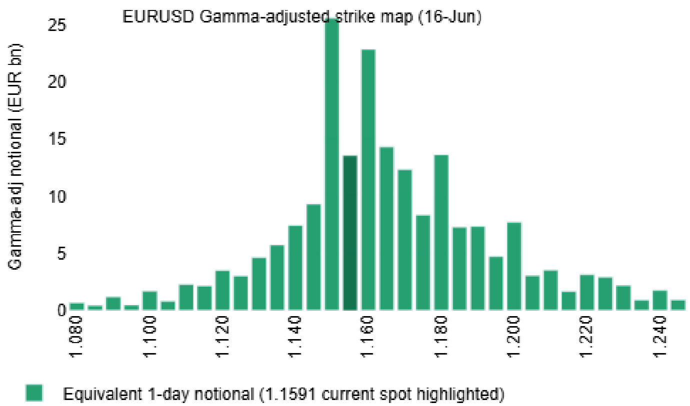
USDJPY distribution of monthly returns under BERT regimes



Sources; Bloomberg, BNP Paribas

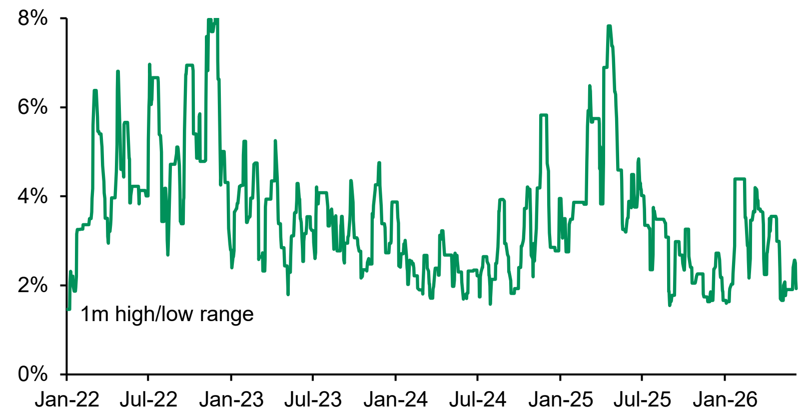
EUR: Drowning in gamma; put-side showing signs of cheapness

Strike map indicates gamma concentration around current spot



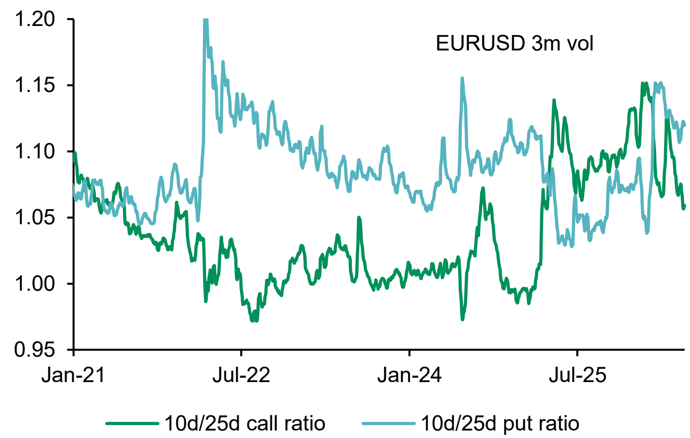
Sources: DTCC, BNP Paribas

…which is one reason why the spot range remains constrained



Sources: Bloomberg, BNP Paribas

Call-side convexity has fallen; put-side convexity remains elevated



Source: BNP Paribas

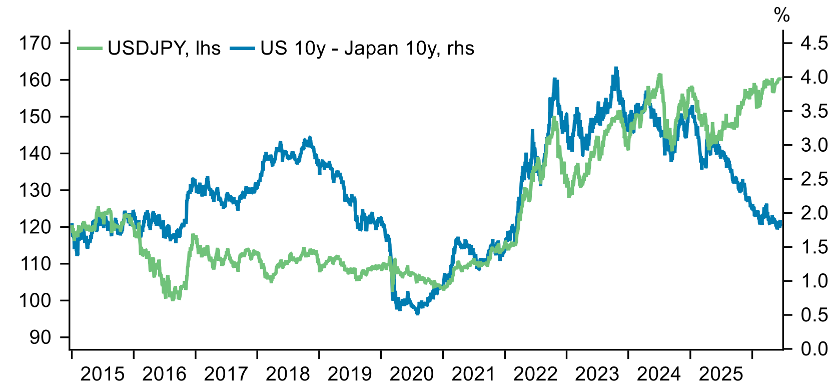
JPY: Intervention may not alter medium-term change trajectory

It has paid to fade the first round of Japan finance ministry intervention

Intervention date	Start price	Intervention + 20d	End price	Return
22-Sep-2022	142.39	20-Oct-2022	150.15	5.45%
21-Oct-2022	147.65	18-Nov-2022	140.37	-4.93%
29-Apr-2024	156.35	27-May-2024	156.88	0.34%
11-Jul-2024	158.84	8-Aug-2024	147.23	-7.31%

Sources: Bloomberg, BNP Paribas

USDJPY - rate differential decoupling

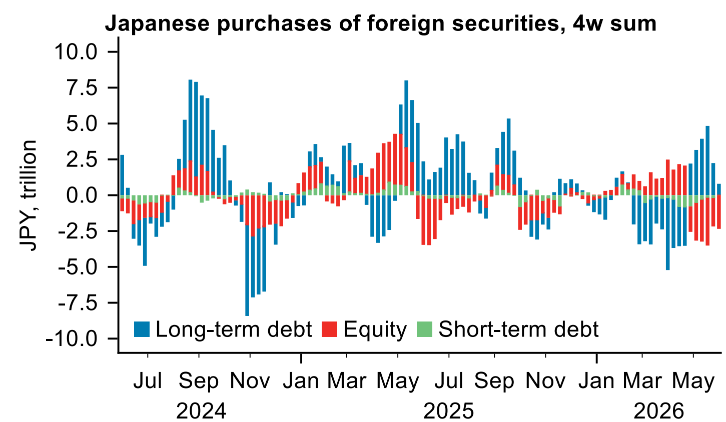


Sources: Bloomberg, BNP Paribas

Japan MoF have a lot of reserves

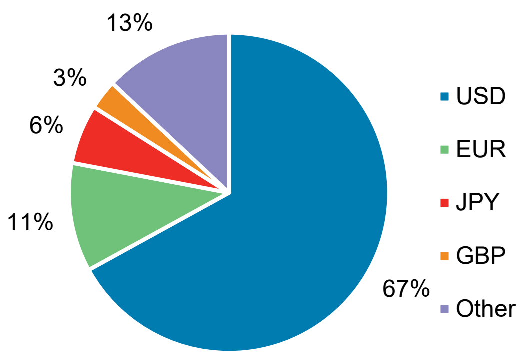
Sources: Macrobond, BNP Paribas

Japanese investors have been selling foreign debt in recent months



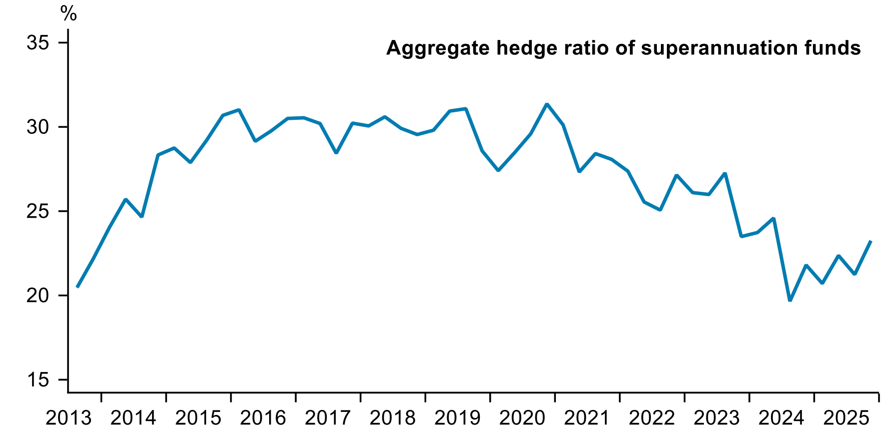
AUD, GBP: Super flows bullish AUD, GBP fiscal risk premium building

Superannuation fund foreign equity currency split



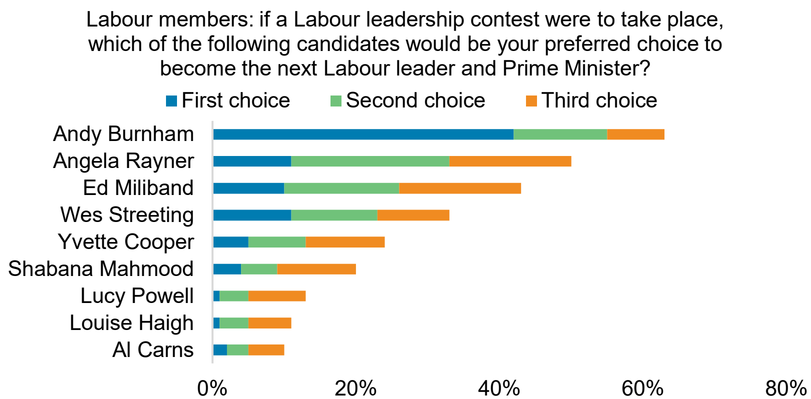
Source: Individual fund reports, BNP Paribas

Superannuation fund hedge ratios over time



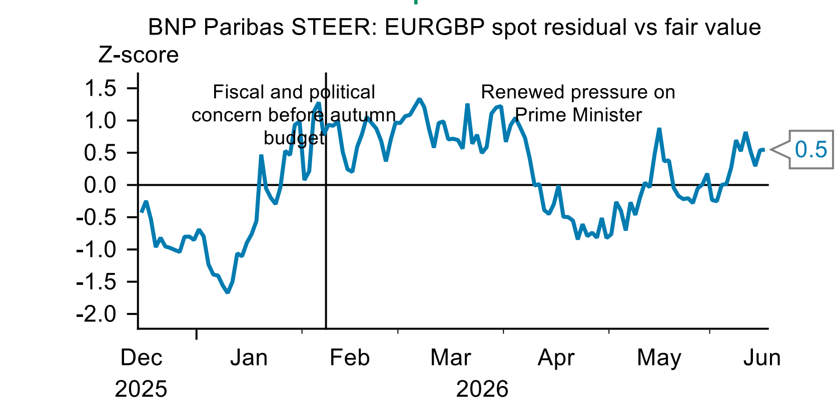
Sources: Macrobond, BNP Paribas, APRA

Andy Burnham polls as the most popular candidate in a potential leadership race among Labour members



The chart uses data from the Survation/Royal Holloway/UK in a changing Europe survey conducted in
Base: All respondents; Unweighted total: 1,078 Labour members
Fieldwork: 30 April–5 May 2026

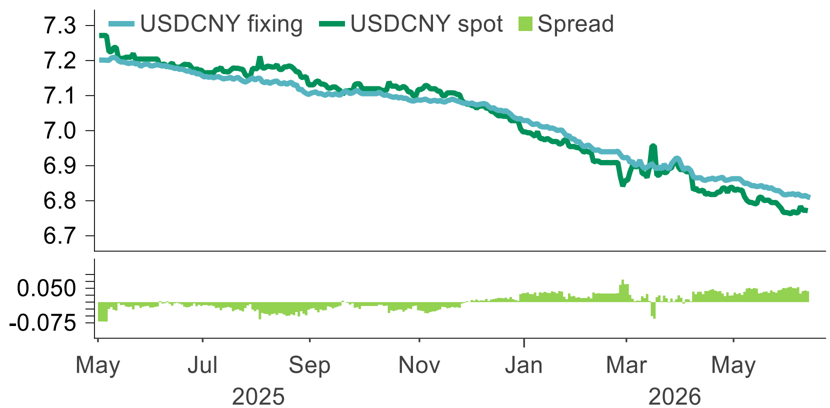
In past episodes of UK political/ fiscal uncertainty EURGBP has risen above short-term fair value implied by BNP Paribas STEER: this time, there is little premium embedded



Sources: Macrobond, BNP Paribas

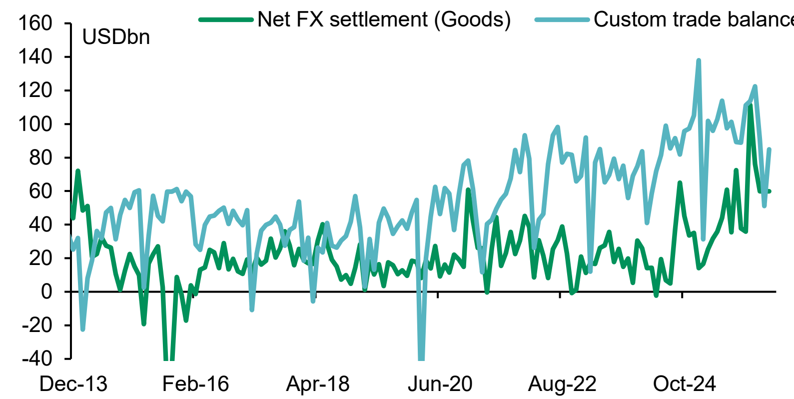
RMB: Maintain a managed mild appreciation path

Lower fixing trend confirms the appreciation path, while the wider spread may curb excessive appreciation expectation



Sources: Macrobond, BNP Paribas

RMB appreciation is mainly driven by exporters' higher FX settlements



Sources: Bloomberg, BNP Paribas

Expect further RMB index upside over the medium term

Based on Bloomberg CFETS RMB Index Tracker

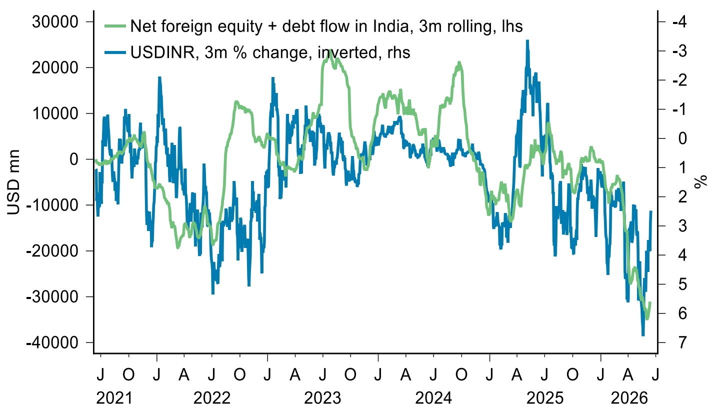
Sources: Bloomberg, Macrobond, BNP Paribas

The still negative US-China rate spread may limit RMB appreciation

Sources: Bloomberg, Macrobond, BNP Paribas

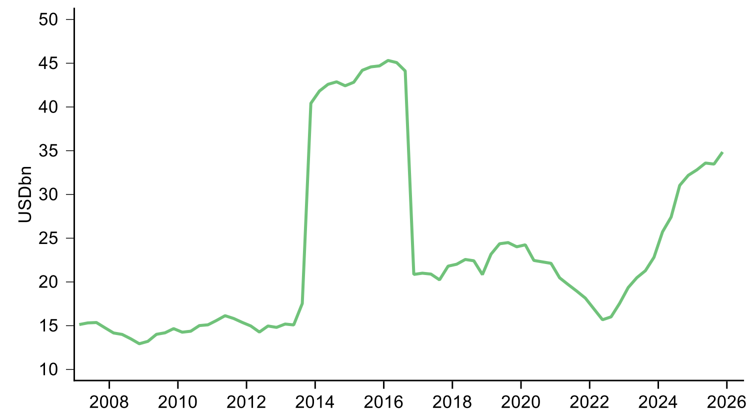
INR: RBI encouraging foreign capital inflows

USDINR holds a strong relationship with foreign portfolio flows in INR assets



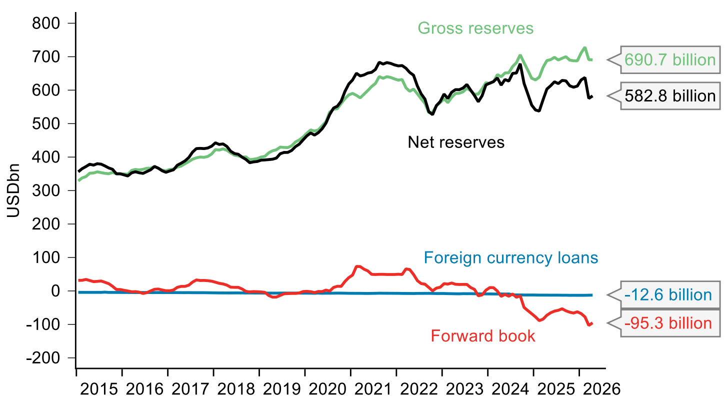
Sources: Central Depository Services India Ltd, Macrobond, BNP Paribas

Measures to increase Foreign Currency Non-Resident (FCNR B) deposit inflows could bolster FX reserves



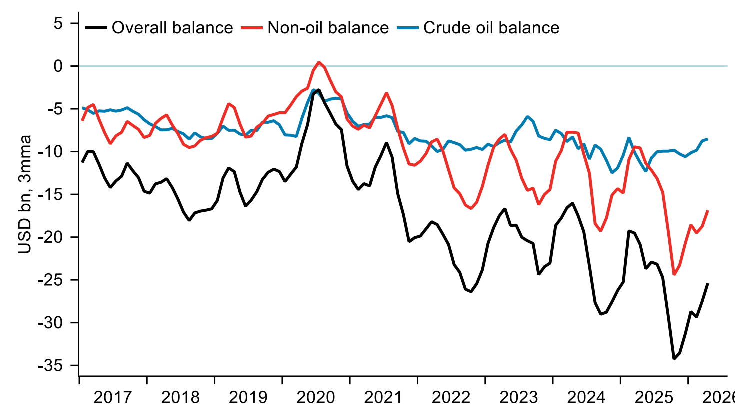
Sources: RBI, Macrobond, BNP Paribas

Gross and net reserves for India



Sources: BI, Macrobond, BNP Paribas

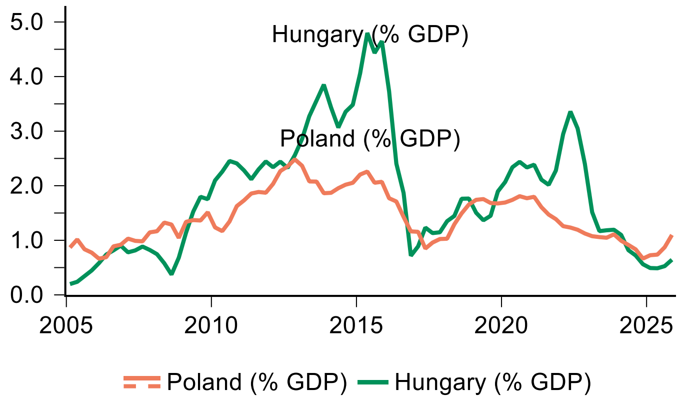
Oil vs non-oil trade balance



Sources: India Ministry of Commerce and Industry, Macrobond, BNP Paribas

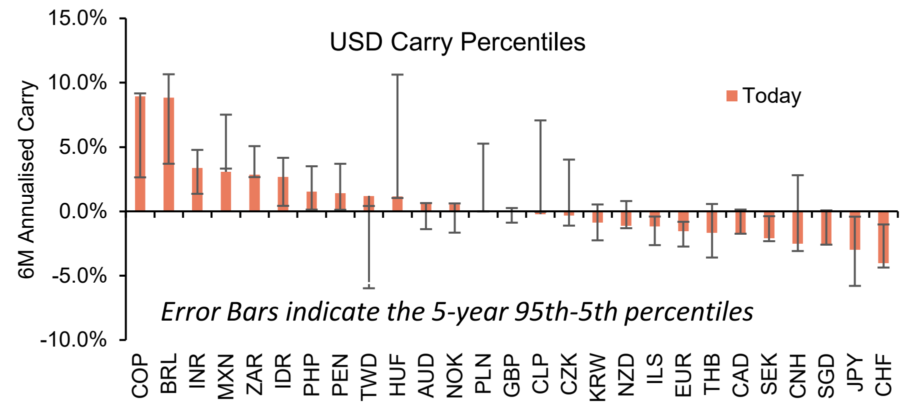
EM elections -Hungary, Colombia and Brazil- have FX impact

Poland provides a template for EU funds under Tisza leadership



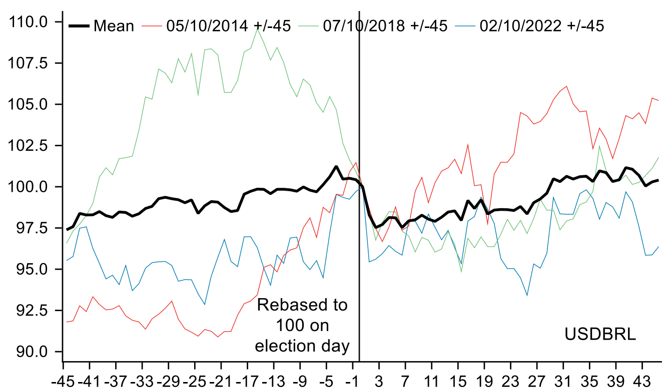
Includes RRF funds, SAFE funds, Cohesion funds and other EU funds.
Sources:, KSH, MNB,GUS, NBP, Eurostat, Macrobond, BNP Paribas

COP has attractive vol-adjusted carry



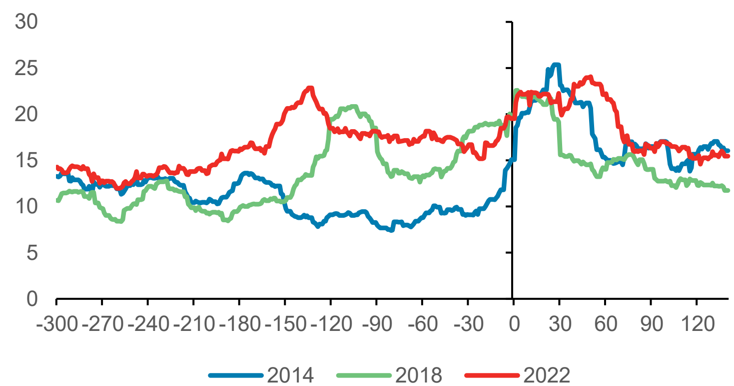
Sources: Bloomberg, Macrobond, BNP Paribas

BRL spot around presidential elections



Sources: Bloomberg, Macrobond, BNP Paribas

1m USDBRL realised volatility centered around previous election dates (%)



Sources: Bloomberg, Macrobond, BNP Paribas

FX Futures | Liquidity Update

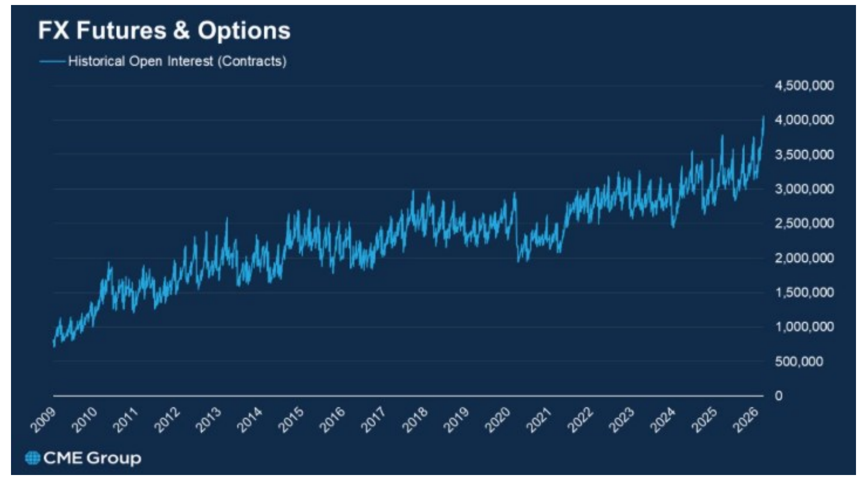
Multi-year growth in FX Futures has simultaneously enhanced liquidity across both OTC and listed markets

- Average Daily Traded Volume YTD: CME FX Futures and Options totals $96.45bn with open interest at $411.1bn.

- FX Link: Increasingly tighter spreads and more addressable sizes at top of book means the market has benefitted from added efficiency and more sizeable volumes.

- EFRP & Blocks: Additional use cases whereby on-screen liquidity has been supplemented via OTC FX transactions. Buy side demand in this regard has been noted across all institutional investor segments.

- Other Notable KPIs
  - Open interest in FX futures and options exceeded $400bn
  - Record open positions from Hedge Funds of ~$110bn
  - Record open positions from Asset Managers of ~$200bn
  - Over 130 customers adopting FX futures & options for the first time or adding more currency pairs to their prior activity
  - Single day traded volume records in currency pairs including EUR & NZD
  - Record open interest at the currency pair level including GBP, JPY, AUD, NOK & NZD



Source: CME, as of 17th June 2026

Digital Cash and Digital FX Opportunities

Deposit Tokens	Central Bank Digital Currencies	Tokenized MMF	Stablecoins	Cryptocurrencies	Fiat
Representation of a deposit liability at a commercial bank **or registration of the deposit** on blockchain	Digital currency **guaranteed and regulated by a central bank**, denominated in the sovereign currency	**Representation of a Money Market Fund as a token** on blockchain : able to perform money-like functions while legally classified as securities	Token issued by a private company on public blockchains **maintaining a stable 1: 1 currency value,** thanks to backing with reserve assets	**Native blockchain tokens** issued by public blockchains (e.g., Bitcoin, Ethereum), used for operating the blockchain (as utility token) – value priced by the market	**Traditional Money**
➢ Number of payment solutions (24/7 instantaneous) now available	➢ Central Banks are still working on Pilots, only few are live	➢ Investment product : usage as cash limited to retail transactions	➢ +150% growth since end of '23 driven by institutional adoption and regulatory clarity (US Genius act and EU Mica)	➢ Highly volatile market concentrated on a few crypto (BTC, ETH..)	$ € £ .....

Digital FX

- Atomic settlement on a payment-vs payment (PvP) basis
- Provide source of external funding 24/7
- No MDDR

Questions & talking points

- Will BoJ rate hikes be enough to reverse the JPY's downtrend, and how strong is the resolve to intervene?
- If the ECB delivers further rate hikes, can EUR/USD finish the year higher?
- Will potential rate hikes from the Fed limit EM inflows and impact the performance of high-yield assets?
- Is Asia FX still a funder for carry trades despite the reversal in oil prices?
- Do we expect more hedging of USD risk from euro-zone investors this year?
- Can China's export-driven recycling of USDs become a sustained trend this year?
- £/USD has been one of the HF favourite short in H1 2026; can we expect a change in H2?

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