



The bank for a changing world

Introduction

After several tumultuous years, the global economy is at a crossroads. The transition from post-pandemic shocks to relative macroeconomic stability will be characterised by a myriad of uncertainties, including growth, inflation, monetary and fiscal policy, geopolitics and various disruptions brought by the energy transition and artificial intelligence.

This paper aims to provide CFOs, Finance Directors and corporate risk managers with the necessary insight and tactical considerations across FX, rates, commodity, credit and equity markets not just to manage their businesses in 2024, but also take advantage of potentially favourable market developments.

The document is split into three sections.

In the first part, we share our views on how the macroeconomic transition could play out in 2024. We think there are an unusually broad range of plausible macroeconomic outcomes this year, so we have chosen a scenario-based approach to help assess how the various outcomes could impact day-to-day risk management activities. Our base case is a soft landing with central banks pivoting to rate cuts in Q2 (BNP Paribas Markets 360 base case), but we also explore two tail-risk scenarios: a recession and a resurgence of inflationary pressures.

The second part focuses on geopolitical risks, which bring an additional layer of uncertainty this year. The ongoing conflicts in Ukraine and Gaza, increasing tensions between superpowers and rising protectionism are potential catalysts for new shocks to supply chains, raw material prices, inflation and global growth. Against this turbulent backdrop, over four billion people in 70 countries will be eligible to vote in elections this year, adding local regulatory and policy uncertainty. The most closely-watched will undoubtedly be in the United States where a finely-balanced contest between Joe Biden and Donald Trump could be the source of financial market volatility later in the year.

The final section looks ahead and asks how risk managers can play their part in repositioning their businesses for medium-term growth. For the past four years, responding to crises and building resilience has taken priority. We think 2024 will be the year when finance leaders shift from surviving to thriving. Several megatrends such as decarbonisation and artificial intelligence would be expected to accelerate investment and M&A as well as offer new opportunities for growth. Capturing this growth will require careful positioning at a time when inflation is still volatile, interest rates are still high and commodities are still susceptible to shocks.



Base case: soft landing and central bank pivot

2024 should be a year of slower growth, cushioned by the start of a monetary easing cycle

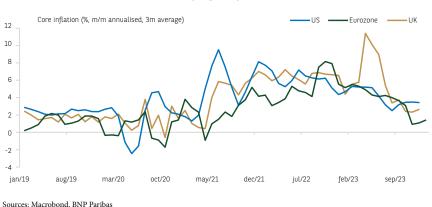
In our base case, we expect restrictive monetary policy to continue weighing on economic activity and erode consumption and services, especially in developed markets. Amid tight labour markets, wage growth remains above levels consistent with a 2% inflation target, but we expect the activity slowdown to create the slack needed for services disinflation, while goods disinflation is likely to continue its 2023 trend.

Ongoing disinflation should lead most central banks to start easing, to avoid real rate increases or to stave off a material rise in unemployment. We expect the ECB to start cutting by 25bp in April this year, and the US Federal Reserve and the Bank of England to cut in June. We forecast year-end policy rates at 2.75%, 4.50% and 4.25% respectively. With monetary policy gradually providing support to activity, we do not anticipate a sharp recession in developed markets, with the US economy poised to grow at 2.0% in 2024 (vs. 2.5% in 2023) with a shallow deceleration in H1, then a small acceleration in H2. While the eurozone economy is currently stagnating, we expect some recovery this year, with GDP growth averaging 0.7% for 2024 (vs. 0.5% in 2023).

Japan and China are key outliers to this lower growth and disinflation story: in contrast to other G10 central banks, the Bank of Japan is likely to tighten monetary policy in 2024 as inflation finally picks up amid wage pressure and JPY weakness. We expect the policy rate to end the year at 0.25%. China's economy is likely to bottom out, but the recovery will be limited by structural factors: on the demand side, youth unemployment

and property-sector headwinds are undermining household confidence, while manufacturing over-capacity, deflation and concerns over tariffs are weighing on the business outlook. China's fiscal policy support is also likely to be limited by the reduction of off-balance sheet debt at local level.

Inflation momentum in developed economies (Graph n°1)

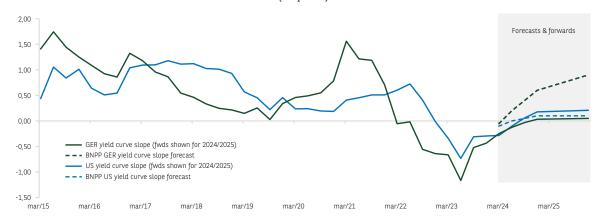


Central bank cuts likely to drive rates down, weigh on the USD and lower FX volatility

The short end of the yield curve is likely to benefit from the expectations and realization of interest-rate cuts. However, fiscal deficits and supply and demand dynamics should keep term premium under upside pressure. As a result, yield curves are likely to bull-steepen (short-term yields dropping more than long-term yields) and become upward-sloping (short-term yields lower than long-term yields) in Q2 2024 in the US, Q3 2024 in the eurozone and Q1 2025 in the UK. Compared to current levels currently priced by the market, we expect more steepening in the US and less steepening in the eurozone.

High levels of monetary policy synchronisation (apart from Japan and China) should limit FX volatility, apart from during elections (see below). In line with long-term fair-value levels, we expect the USD to weaken and engage in a bumpy long-term bear trend as investors who are currently overweight USD assets with low hedging ratios will be able to turn to non-USD fixed income or equity assets with positive returns. At the end of 2024, we forecast EURUSD at 1.15 and GBPUSD at 1.32. Reduced interest rate differentials should also support the JPY which we forecast at 135 vs. the USD. We expect the RMB to be range-bound vs USD between 7.10 and 7.30 until the Fed starts its easing cycle and then to strengthen towards 7.00 by the end of 2024.

BNPP expects rate curves to steepen (higher difference between long-term yields and short-term yields) in both the US and eurozone $(Graph \ n^2 2)$



Sources: Bloomberg, BNP Paribas. "yield curve slope" estimated by difference between 10y and 2y points

Energy prices will be capped by slowing demand, but geopolitics could trigger upside volatility

We expect oil prices to be range-bound, floored by the prospects of OPEC+ production cuts and capped by expectations of an economic slowdown. We forecast Brent at USD 78/bbl in Q1 2024 and USD 83/bbl in Q4 2024, mirroring growth expectations. A mild winter and high storage levels should trigger a fall in gas prices in Q2 2024. As the storage season kicks off and winter consumption supports prices amid limited incremental LNG supplies, we expect prices to rise in Q3 and Q4 2024. Moreover, we expect EU carbon prices to be supported by the start of the economic recovery and the prospect of market tightness in the years ahead. USD weakness should also support higher and more volatile USD-denominated base metal prices in H2 despite lukewarm fundamentals.

Corporate credit spread range-bound, capped by rate cuts and floored by pressure on earnings

In 2023, corporate credit spreads were floored by tighter financial conditions and capped by resilient earnings. This year, the range should also hold, though for opposite reasons. By the middle of 2024, about USD130bn of corporate bonds will be maturing each month across the US and Europe, with investors expecting some sectors to reduce leverage. Earnings are also likely to come under pressure as margins normalise and financing costs rise as debt is refinanced. However, expectations of earlier central bank easing should support the credit markets. We anticipate wider dispersion across ratings (investment grade faring better than high yield) and across sectors (according to their exposure to a potential economic slowdown) in 2024.

We see downside risk on equities as earnings could disappoint

As with credit, central bank easing is likely to support equities. However, we expect the profit cycle to come under pressure. Corporate profit growth has already slowed and the combination of a slowdown in demand, normalisation of price inflation and the rising cost of debt upon refinancing may lead to margin disappointment. We see risks skewed to the downside in the US (where earnings expectations are optimistic), balanced in Europe (where valuations look consistent with the economic cycle) and we see upside in Japan. At end-2024, we forecast the S&P 500 at 5150 end-2024, EuroStoxx 50 at 4800, NIKKEI 225 at 35000 and MSCI China at 57.5.

The above outlook is our base case, however we also share two tail risk scenarios for corporate risk managers to plan for the unexpected.

Tail risk A: Recession

Central banks likely to respond by larger-than-anticipated easing, generating V-shaped recovery

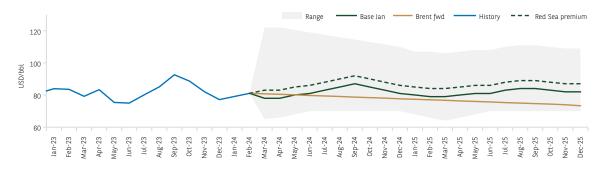
In this scenario, we believe the delayed effect of tighter monetary conditions would slow down the economy more than anticipated, leading to recession. Early-warning signals would be a fast-deteriorating labour market and a sharp decline in consumer spending on services. The slack created by rising unemployment and a slowdown in economic activity would accelerate disinflation. Real rates would rise, due to lower inflation, triggering a more decisive central bank pivot. In line with its dual mandate (sustainable employment and price stability), the Fed would be likely to cut rates more than envisaged and the ECB would engage in more aggressive easing to adjust real rates. The so-called 'central bank put' (expectation that central banks will ease monetary policy and support markets) is more effective at current interest rate levels than at zero rates and would support markets and investment. A V-shape economic cycle would be likely to unfold, in our view. The yield curve would steepen with short-term rates dropping faster than long-term rates. Interest rate differentials between the US and the rest of the world would narrow, with the JPY likely to rally thanks to a narrowing differential and its status as a safe-haven. The RMB would be supported by improving carry. Energy and metals prices would be expected to decline with softening demand. Credit spreads would probably widen on the back of weaker corporate earnings. Equities would be likely to suffer, and we would expect a 10-20% fall and higher volatility across equity markets.

Tail risk B: Inflation re-ignition

If inflation re-accelerates, wide risk-off sentiment could unfold as the central bank pivot – already priced in – would be compromised

We think this scenario would occur if geopolitical events severely affected supply chains and energy prices. A prolonged Red Sea crisis would allow higher freight costs to filter through into the economy, while an escalation of Middle-East tensions could lead to a disruption of oil and gas flows through the Strait of Hormuz, which could push Brent up to USD120 per barrel temporarily before demand destruction moderates the peak. Such events could reignite price pressures, compounding structural inflationary trends such as more regional value chains and climate mitigation costs, especially in the energy sector. Should inflation re-ignite, the central bank pivot currently factored in would not materialise and the narrative of higher rates for longer could resurface. We believe extended stagflation would be likely to unfold with the global economy at the bottom of a U-shaped economic cycle. Risky assets (corporate credit and equities) would come under pressure, as investors could not rely on the 'central bank put'. The yield curve could invert further, driven by higher short-term yields. The JPY and RMB would weaken due to punitive carry vs the USD. Energy prices would be likely to rally. Corporate credit spreads would widen, and equities would be likely to enter a bear market, driven by higher yields.

Brent price scenarios - Hormuz constraints would drive prices up



Current base case versus Oil and gas forecast update: There is light at the end of the tunnel, dated 8 December Sources: SPGCI, BNP Paribas

Base case: soft landing and central bank pivot

Tail risk: recession

Tail risk: inflation reaccelerates

USD to weaken to 1.15 by EoY with minimal fx vol given central bank synchronization until elections. Move to center of USD smile.

- G10 revenue hedgers could take advantage of low volatility environment now to layer in additional (or begin implementing) option hedges
- As base case develops (USD weakens), G10 revenue hedgers could pivot to fx forwards on better spot entry
- EMFX sellers could consider collars to avoid unfavorable carry dynamics (i.e avoid paying forward points) and those with EM asset exposure should consider higher hedge ratios

USD likely to strengthen against most pairs given flight to quality (USD smile). JPY would strengthen however as safe haven and narrowing rate differential.

- Hedge ratios should be minimized and exposures hedged with options as revenue/expense forecasts become increasingly uncertain.
- For those wishing to hedge the recession risk with EM exposures, those hedging revenues could lock in current attractive levels while those hedging expenditures could pivot to options and collars to benefit from future EM currency weakness.

USD strengthens given move to other side of smile and fx volatility rises with central bank activity uncertain and uncoordinated.

- Similar to recession scenario with EM hedgers incentivized to lock in current attractive levels before the USD rises.
- In advance of vol spike, corporates could consider gearing options hedge ratios regardless of exposure type.

Mild bull steepening yield curve as Fed drops rates 150bps (to 4% by EoY) and term premium keeps long end high.

- Fixed rate IG borrowers could finally take advantage of positive carry to swap fixed rate debt to floating and normalize fixed-float mix %
- Although the cost of pre-issuance hedging will increase, IG issuance could be hedged given expectation for higher term rates with increased Treasury issuance expected to fund a rising deficit, reduced demand from foreign UST buyers and Fed QT

Bull steepening yield curve with the Fed cutting rates more than is currently priced in.

- For corporates with existing term loan (i.e. floating to fixed) hedges, review blend and extend strategies given lower rate environment
- Swapping fixed rate debt to floating to benefit from Fed cutting short end of rates
- Restructure existing net investment cross currency swaps given USD rally
- Review all forms of preissuance hedging (option and forward based) given rates rally.

Yield curve inverts further with the Fed/ central banks abandoning the pivot and raising (or at least not cutting) rates and long end rises (by less; i.e. bear flattening):

- Increase hedge ratios and extend duration of floating rate debt hedges (i.e. pay fixed swaps) given curve inversion
- Delay swap to floating programs with higher shorter term rates (negative carry) until expected Fed inflection point
- Revisit pre-issuance hedging given negative forward points and likely higher UST volatility.

FX

Base case: soft landing and central bank pivot

Tail risk: recession

Tail risk: inflation reaccelerates

ates

- Floating rate borrowers
 (i.e. with term loan
 exposure) could pivot
 more to option/collar
 strategies over swaps
 given carry cost to fix out
- Higher term rates favor net investment hedging based on carry (receive USD and pay foreign currency)

Oil prices rangebound (brent \$78-91) given economic slowdown and supported by OPEC+ cuts

- Rangebound markets provide consumers and producers an opportune time to potentially consider increase hedge notionals and tenor or implement programs in advance future volatility
 - Corporates may consider working capital solutions aimed at improving liquidity access and assets performance, such as gas prepay or post-pay.

With the exception of gold, commodity prices will likely fall with industrial metals hardest hit given drop in demand

- Consumers may look to blend and extend existing hedges to benefit from lower entry points
- Inventory financing strategies could allow corporates to benefit from a likely steep contango in forward curves
- Producers may look to monetize and re-strike existing hedges.

The inflation rebound could be triggered by rising crude oil on the back of a worsening geopolitical backdrop. Energy prices will rally broadly

- Producers could benefit from the commodity rally by hedging shorter to medium term exposures.
- Corporates may consider liquidity swap strategies to manage commodity price volatility.
- Unhedged consumers could benefit from likely backwardation in forward curves by extending hedge durations.
- Corporates could also look to monetise their commodity inventory through outright sales or leasebacks.

Commodities

	Base case: soft landing and central bank pivot	Tail risk: recession	Tail risk: inflation reaccelerates
Credit	Rangebound given impact of slowdown on earnings but spreads supported by rate cuts	Credit spread widening more than base case given weak fundamentals and corporate earnings under pressure	Widening spreads given higher rates
Equity	Equity markets skewed to downside. While rate cuts are supportive, corporate earnings under pressure due to slowdown. Corporates could consider regular share buy-back programs to optimize their capital structure Corporates may look to offset potential dilution from share-based compensation plans Stabilization of valuations with a more controlled macroeconomic environment typically result in attractive convertible financing opportunities	More pronounced fall in equities (10-20%) and rise in VIX: Convertible issuance may be attractive in a recessionary environment due to flexibility of issuer terms vs. secured debt (i.e. fewer covenants) More pronounced fall in equities (10-20%) and rise in VIX: Convertible issuance may be attractive in a recessionary environment due to flexibility of issuer terms vs. secured debt (i.e. fewer covenants) Share buyback for those	Potential bear market as higher rates and energy prices provides challenging backdrop for corporate earnings and consumer demand: • A higher for long scenario resulting in relative attractiveness of primary convertibles versus more expensive debt and bank facilities • Higher equity volatility also to benefit convertible financing issuers driving up embedded option value however somewhat tempered by widening credit spreads.

companies with financial

flexibility

· Private markets to

raise capital (private

placements, NAV loans,

etc.) given challenged

public equity markets.

• Return of IPO market as conditions normalize

presenting opportunities

financing and derivative

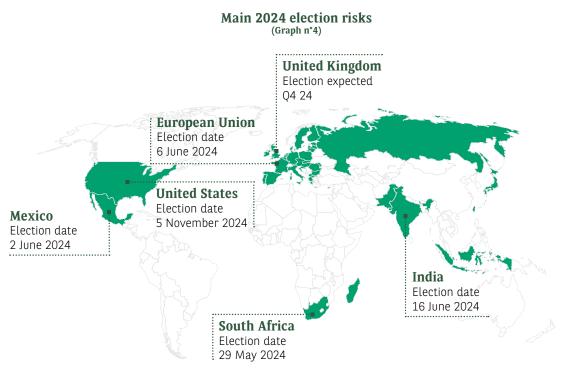
monetization structures.

for equity collateral-based



Election-mania

Against this backdrop of conflict, over four billion people in 70 countries will head to the polls in 2024. Election-mania will generate local regulatory and policy uncertainty as well as increased currency volatility, particularly in emerging markets.



Source: BNP Paribas M360 - countries painted green will hold national elections in 2024.

Most ballots will be cast in Asia. Following the Taiwanese elections in January, the aftermath of Indonesia's elections in February will be watched closely considering the country's growing significance for mineral supplies. India's election in May will see Prime Minister Modi's BJP party face opposition from an alliance of over 20 political parties.

Attention turns to Europe ahead of the summer. In June, citizens of the 27 EU member states will vote in the European Parliament elections. The outcome will shape Europe's approach to climate change, immigration and support for Ukraine in the coming years. A UK general election is also very likely in 2024, with the opposition Labour Party currently leading in the polls, though a major fiscal shift is unlikely, in our view.

A host of elections across Africa (including South Africa, Senegal and Rwanda) will be watched closely for signs of regional instability, before attention turns to Mexico, where the ruling Morena party will look to defend its policies on energy and investment. Whilst the party is currently ahead in the polls and expected to remain in government, a more fragmented Congress is likely.

Barring any unforeseen circumstances, the grand finale to this year of election-mania will be a rematch between Joe Biden and Donald Trump for the US presidency.

A finely balanced election race and a divided US government are the most likely outcome. However, the risk of a Republican sweep and a more assertive – and likely inflationary – policy agenda is sizable and would be the strongest market mover. In a divided government, a Republican presidency would likely prove more market-moving than a Democratic one, considering that a dramatic rise in volatility is usually observed when the party of the president changes.

Risk management considerations for geopolitical risk

In the US elections, a 'red wave' scenario would be likely to support the USD and see higher US and global yields due to increased risk premia, tax cuts, higher tariffs and uncertainty about leadership of the US Federal Reserve. Corporates might wish to anticipate these potential outcomes by considering pre-hedging their debt issuances ahead of November. In a stressed post-election environment, treasurers might consider using the flexibility of options to achieve more attractive hedging levels across rates and FX. US corporates could also look to extend net investment hedging on high positive carry currency pairs like the EUR, CHF, CNY and JPY.

US election outcomes: likely market impacts across asset classes

Outcome	FX	Rates	Commodity	Credit	Equity
Democrat sweep or White House and split congress	Status quo with USD bearish trend likely continuing in medium-term	Mild sell- off: Market adjusts to more hawkish (than under Trump) Fed stance but continued flattening as less deficit spending expected	Despite record high US gas and oil production, clean energy subsidies to be expanded with impact on commodity markets	Status quo with spreads driven by monetary policy; IG outperforms HY	Decreased volatility, likely neutral to negative due to additional tax hikes and regulation
Republican sweep or White House and split congress	'America first' with likely increase in tariffs leading to USD strength outweighing negative impact of Fed easing	Rally: Dovish Fed chair and fiscal stimulus likely but also some curve steepening as deficit spending and tax cuts made permanent	Rollback regulations on oil and gas drilling leading to increased supply, but bullish scenario likely if instability perceived	Spread volatility driven by monetary policy; HY outperforms IG	Viewed as positive on tax cut and de-regulation expectations

Specific tail risks to look out in the UK elections would include a hung parliament which could force Labour to enter a coalition with the Liberal Democrats (likely leading to a stronger GBP on the back of closer EU-UK relations) or with the SNP (likely weighing on the GBP due to potential debates about a second independence referendum for Scotland). GBP volatility could spike in both scenarios.

Other market-moving election-related tail risks include a potential coalition in South Africa, with an ANC minority likely to weigh heavily on ZAR, in our view. In Mexico, if the incumbent coalition secures a qualified majority in Congress – and therefore the ability to pass constitutional reform and delay fiscal reform – we believe the peso would be likely to depreciate. Corporates with material exposure to the MXN or ZAR may therefore consider increasing hedge ratios and tenors to manage against such events.

Corporates concerned about an escalation of current conflicts or a spike in global trade tensions could look to manage against an increase in energy and agricultural commodity prices, as well as against a re-ignition of inflation described above.

More broadly, corporates with significant businesses or assets in countries and regions exposed to geopolitical risk may look to initiate or add to existing net investment strategies to hedge against a sharp depreciation of local currencies. In the current low volatility environment, corporates might consider implementing net investment hedging through options, or purchasing USD calls to protect at low cost against a wider range of extreme events.

We will regularly update our thoughts on these risks and other key 2024 elections.



Funding the capex supercycle

The megatrends of energy transition, clean mobility and digitalisation stand to accelerate capex spending in 2024

Despite higher volatility, higher interest rates, high inflation and elevated geopolitical tensions, infrastructure assets continue to attract investors seeking long-term income, stable cash flows and diversification. Renewable energy is a vital part of the puzzle, but decarbonisation is gaining speed across infrastructure assets, from transportation to the phase-out of coal in the utility mix. The first carbon capture and storage projects are beginning to come to the market for financing, and there are interesting early opportunities throughout the battery storage and green hydrogen value chains. This will require large volumes of new debt as well as solutions to manage new exposures to inflation, interest rate and commodity markets.

The innovation agenda in 2024 seems likely to be dominated by AI, which is already bringing both rapid advances and significant disruption across industries. Whilst ChatGPT has grabbed the headlines, the real innovation and productivity gains are likely to come from specific applications in sectors such as healthcare, education, software, banking and chemicals. Whilst many companies are rushing to invest in infrastructure for training AI models to improve business processes, AI's diverse potential looks likely to force profound change in the way companies operate, fund themselves and manage risk.

Dealing with debt maturities

This requirement to invest comes at a challenging time for some companies. The recent pace and scale of interest rate rises have pushed marginal funding costs sharply higher. Whilst many well-rated blue-chips have gradually lengthened debt maturities and taken advantage of attractive post-COVID funding windows to manage their borrowing profiles, others may need to scale a steepening refinancing wall in 2025 and 2026 to position for medium-term growth.

For example, the volume of US HY bonds maturing will treble between 2024 and 2025, and surge tenfold between 2024 and 2028. Many of these bonds were issued in 2020-2021 with 3-4% coupons, but in current market conditions cannot be refinanced below 8-9% due to a combination of higher interest rates and wider credit spreads. Against this backdrop, some companies may need to continue reducing their balance sheet leverage before turning their attention to investment opportunities.

European and US Credit Maturity Wall (in bn) European and US Credit Maturity Wall (in bn)

Debt maturity wall in years ahead

Source: Markit iBoxx, ICE BofA, Bloomberg, LCD ELLI, LCD LSTA

After a strong start to the year, capital markets are expected to remain active throughout 2024 with issuance likely to reach higher levels than 2023 across all client segments: sovereign issuers financing large public deficits, financial institutions increasing capital and liquidity buffers ahead of the Basel IV implementation and many corporates refinancing bonds and loans issued during the COVID crisis.

Many of these new financings will have higher coupons than was seen over the last 10 years. As such, corporate issuers will have to be opportunistic in terms of how and when they tap bond and loan markets, given fierce competition across the credit spectrum and volatile macro and (geo)political environments. There may be a real advantage to capitalise on a strong market window to de-risk upcoming maturities, even though this may not correspond to optimal windows from an interest rate risk management perspective. This dichotomy could bring corporate treasurers to consider decoupling interest rate hedging from debt issuance.

Moreover, we expect continued diversification through private placements and synthetic foreign currency debt. Vanilla and structured private placements can offer access to different investor bases and provide an attractive pricing point for long-dated borrowers. Similarly, currencies like CHF and JPY re-emerged in 2023 as a way to broaden investor bases geographically and may be revisited in 2024.

Equity-linked considerations

Equity markets also offer diversification opportunities. One of the key trends in 2023 was a resurgence of convertible bond financings. According to Bloomberg, volumes rose throughout the year to USD 110bn, up 21% on 2022. This trend should continue in 2024 thanks to the strong performance of equity markets, which makes potential dilution at a premium to the current price an acceptable risk for many boards that are keen to keep the cash coupons of new financings at reasonable levels.

While the convertible bond market has historically been particularly attractive for non-rated issuers, it could attract a much broader range of borrowers in 2024. As managing dilution risk for shareholders also ranks high on the CFO agenda, we still expect corporates to consider potential solutions to mitigate this risk, notably in the US via derivative overlays (e.g. capped calls and call spreads), which are contracts that corporates can enter into simultaneously with the financing in order to increase the effective conversion price of the notes.

M&A for growth amidst heightened scrutiny

Mergers and acquisitions activity fell in 2023. Soaring interest rates and inflation, supply chain disruptions, the aftermath of the 2022 energy crisis and heightened geopolitical tensions were not conducive to deal-making.

We expect M&A activity to recover gradually in 2024 as the macroeconomic environment stabilises and inorganic growth becomes essential for harnessing innovation and growth opportunities. However, corporates engaging in M&A should expect an increasingly complex regulatory environment across developed and developing economies.

In the US, for instance, merger control guidelines adopted in December 2023 formalise the Biden administration's stricter competition enforcement stance, placing greater emphasis on market share. In addition, the new merger filing form proposed in June 2023, if and when fully implemented, is likely to require significantly more time and effort from M&A parties ahead of US antitrust filings. In the EU, the recently adopted Foreign Subsidies Regulation has introduced a new filing obligation for most M&A transactions with an EU nexus, with wide-ranging information requirements.

In parallel, M&A transactions will face close scrutiny at the global level over national security. CFIUS in the US, for example, is subjecting more and more transactions to investigation and mitigation measures. FDI control regimes have been extended in Europe (with 2023 providing evidence of intra-EU transactions being blocked), China and Japan. Both the EU and the US are considering scrutinising certain outbound investments on national security grounds.

The new value chains created as part of the green transition are also bringing increasing overlap between typical infrastructure or project financing considerations and large-scale corporate investment projects, creating new hedging challenges for corporates (for instance, in non-recourse or JV setups). Financing transformational capex usually embeds long-dated interest rate, inflation, currency or raw materials exposures that also drive hedging discussions.

Risk management considerations to reposition for growth

Risk managers tasked with supporting this repositioning should look first to understand and quantify interest rate and credit risks associated with refinancing existing maturities or issuing new debt in the coming 3-4 years. Interest rate risks can for instance be managed with forward-starting swaps, caps, collars or swaptions linked to the financing reference rate, whilst credit risk associated with bond issuance can be proxy-hedged with credit indices such as iTRAXX. Corporates engaged in balance sheet deleveraging may also consider securing the terms of their debt buybacks through pre-hedging solutions.

With capital, credit and interest rate markets susceptible to volatility, an agile and flexible risk management approach will be important. This can be achieved by embedding time flexibility in hedges entered into ahead of a new issue, reviewing dynamically the future fixed/floating debt mix (or maturity of hedges) depending on market dynamics or with more frequent use of option-based strategies. Options can also offer an attractive way of potentially reducing future interest cost.

Companies looking to diversify funding sources through foreign currency, private placements ('PPs') or equity markets will need to work closely with their hedging partners to analyse the most cost-efficient, post-hedge financing instrument. In order to create synthetic foreign currency debt, companies will for instance need to enter into a cross-currency swap with an initial and final exchange. Understanding the mechanics of such a hedge and the embedded costs is an essential part of the foreign currency funding process. Similarly, vanilla and structured PPs usually require a hedge to convert the payoff requested by the investor to the one required by the company. In many emerging markets, funding variations are often numerous and complex. Understanding and mapping out the onshore and offshore routes as well as the tax implications of each can help in choosing the most cost-efficient structure.

For companies embarking on inorganic growth strategies, the current M&A environment described above creates an additional layer of complexity. Protecting potential future investments against adverse market moves will be a key theme and we expect more corporates to consider hedging solutions at earlier stages of the acquisition process.

Faced with longer timelines and uncertain regulatory and market developments, deal contingent solutions (i.e. derivatives that extinguish at no cost in case the underlying project / M&A does not materialize) are likely to remain an attractive way of managing exposures which will arise in the event of an underlying transaction completing.

Such solutions are best tailored to the situation and require careful preparation. Corporates may, for example, consider aligning their hedging strategy to the various potential outcomes of a public M&A process. They might also engage in hedging strategies well ahead of signing legally binding commitments, for instance by entering into net investment hedging soon after deciding on potential divestment of a foreign currency asset.

Decarbonisation: New financial risks

The green transition will continue to shape business agendas in 2024, along with climate and biodiversity risks. After a challenging 2023, we expect progress to resume this year as companies seek to accelerate their efforts to reduce emissions, transition to low-carbon processes and practices and embrace sustainable energy solutions.

For CFOs and finance directors, the energy transition not only brings new investment risks, but also new approaches to risk management, such as:

- Setting up financial metrics that reflect a company's specific journey towards sustainability and commitment to ESG principles;
- Implementing a cost-effective renewable energy investments strategy;
- Reviewing risk management policy to incorporate new financial risks stemming from the energy transition, a rapidly shifting regulatory landscape, new market volatility regimes and potential disruption of traditional energy sources.

Many corporate treasurers are accordingly looking to design, update and implement a comprehensive carbon risk management strategy which requires access to carbon markets across the globe, whether voluntary (VERs) or compliance-based (EU-ETS, UK-ETS, nEHS, California ETS, etc.). These markets are quickly expanding their scope, both in terms of sectors (shipping and at a later stage construction and transportation to be integrated to the EU-ETS, phased entry into force of the EU Carbon Border Adjustment Mechanism) and country coverage. Corporates are therefore keen to benefit from sharing of knowledge with experienced practitioners as they navigate these new requirements.

Companies are also increasingly considering ad-hoc hedging to mitigate price volatility and liquidity risks. For instance, BNP Paribas and some of its clients have already co-developed working capital solutions linked to environmental certificates. In 2024, we expect corporates will seek to develop similar risk management solutions tied to green power contracts, considering their rapid growth.

As more and more companies commit to 100% renewable electricity by 2050 (if not before), they also incur new financial exposures to manage. Last year saw a paradigm shift in energy procurement strategies as a result of price volatility in Europe, with increased use of long-term contracts and corporate power purchase agreements ('PPAs') as a hedging tool. In 2024, we expect corporates to display growing sensitivity to price and volume profile risks as they refine their understanding of PPA-related market risks.

We therefore anticipate continued interest from corporates in financial and physical hedging solutions on European wholesale power markets to reduce price risk and secure energy-linked cash flows. We also

expect corporates to gradually commit to using green energy "24/7" via an optimised portfolio of wind and solar PPAs, which will also require solutions to smooth the negative impact of power cannibalisation risk, i.e. the negative correlation between power prices and renewables energy production.

Investment in low-carbon solutions also comes with increased raw material sourcing needs, in particular for 'green metals' such as copper, nickel, zinc, aluminium and cobalt. For a wide range of applications including electric vehicles and energy storage systems, lithium plays a specific role in corporate procurement strategies given its significant impact on the total cost of end products. In recent years, lithium demand has grown at approximately 20% per year and prices are expected to remain very volatile. Corporates are therefore looking to defend against lithium price volatility through financial hedges, with these efforts benefiting from increasingly clear indexation in commercial contracts – an important enabler for hedge accounting treatment. BNP Paribas is proud to be a key participant in the nascent lithium hedging market.

For some companies, the transition to clean energy will could alter other core financial risks. For example, traditional oil and gas companies currently accelerating their investments in renewables find themselves creating new long-term interest rate risks from their project finance activities, FX exposures from multi-currency Capex, Opex and dividends (as projects generate local currency revenues rather than USD) or even revenue inflation exposures from Contracts for Difference or long-term inflation-linked PPAs. Moreover, the current competitive renewable landscape means many of these risk factors could make new projects unviable if they are not managed carefully.

Technologies

Harnessing the potential of AI and large language models to enhance and transform business models became top of mind across executive teams in 2023, and we likewise expect to see a greater adoption of digital innovation by corporate treasuries this year. New technologies will help treasurers navigate the complexities of financial risk management more effectively by improving efficiency through automation and enhancing decision-making processes, thanks to rule-based strategies.

In this context, BNP Paribas strives to become a partner of choice for corporates when it comes to digital innovation. As well as developing and investing in its own technology, BNP Paribas has partnered with fintechs to deliver state-of-the-art risk management services to clients across the globe. We have, for instance, leveraged our acquisition of Kantox to transform currency hedging workflows for corporates by offering a fully automated solution across exposures identification, rules-based market execution and streamlined trade reporting.

As we enter 2024, we have just released the new Kantox "In-House FX" module, which enables companies to centralise FX management of subsidiaries, maximise exposure netting for the group and enhance available liquidity. These modules help to free time for treasurers to focus on more strategic aspects of risk management.

Introducing new technology in risk management practices also provides many benefits when it comes to decision-making processes. Corporates with upcoming redemptions and high cash balances are for instance turning to innovative FX risk management strategies to reduce their cost of carry and/or optimise their fixed/floating ratio on a net debt basis through systematic strategies.

We also see that corporates willing to hedge net assets in foreign currencies are increasingly considering innovative strategies such as the dynamic hedging program (DHP). This model is based on pre-defined market signals to support our clients through decisions around FX execution and choice of hedging instruments. It was also designed to automate execution of our clients' multiple hedges in a single swap, with the strategy's performance paid at predefined dates, hence reducing operational and settlement risks. This solution has consistently outperformed the use of simple linear instruments over past years.



An inflation resurgence scenario would be more disruptive. Rates would remain higher for longer, triggering risk-off sentiment and increasing volatility across asset classes. This scenario would need a careful, forward-looking risk management approach to protect the business and its cashflows from adverse financial market conditions.

Regardless of the macroeconomic path we follow in 2024, geopolitics is highly likely to play a key role. US elections stakes are high as they will impact fiscal and monetary policies, global trade, the energy transition and global security. This is a source of market instability which the market is already starting to price in. Corporate risk managers will need to build agility and flexibility into hedging programmes in order to remain competitive.

2024 also comes with opportunities. Two megatrends, namely energy transition and artificial intelligence will drive investment and generate growth. This expansion will bring new risks in inflation, interest rate and commodity markets, as well as the need for large volumes of new debt. As corporate risk managers reposition for medium-term growth, we expect they would need to refinance existing debt and source new funding at historically high levels of interest rates. As such, interest rates are likely to remain a driver of strategic decision-making for some time. Furthermore, the era of benign inflation is behind us and even if it were to return to target rapidly, echoes of the past two years' price pressures will keep inflation and commodity prices sensitive to geopolitical tensions and more volatile than before. Consequently, we strongly believe that inflation has become a treasury risk parameter in its own right and that companies exposed to commodity input costs may want to consider the potential benefits and costs of hedging programmes to mitigate the impact of potential supply chain shocks on their business.

Corporate treasuries were instrumental in building resilience during the crises and shocks of the past 4 years. In 2024, a longer-term, forward-looking risk management strategy should allow many companies to capture growth and capitalise on the megatrends of decarbonisation and digitalisation.



Disclaimer

Legal Notice: This document/communication may contain "Research" as defined under MiFID II unbundling rules; any such Research is intended either (i) for those firms who are in scope of the MiFID II unbundling rules and have signed up to a BNP Paribas Global Markets Research package, or (ii) for firms that are out of scope of the MiFID II unbundling rules and therefore are not required to pay for Research MiFID II. Please note that it is your firm's responsibility to ensure that you do not view or use any Research in this document if your firm has not signed up to a BNP Paribas Global Markets Research package, unless your firm is out of scope of the MiFID II unbundling rules. This document may also be regarded as a minor non-monetary benefit (MNMB) and it is your firm's responsibility to consider its own regulatory obligations in relation to inducements and accepting MNMBs.

This document is CONFIDENTIAL AND FOR DISCUSSION PURPOSES ONLY; it constitutes a marketing communication and has been prepared by a Sales and Marketing function within BNP Paribas and/or its subsidiaries or affiliates (collectively "we" or "BNP Paribas"). As a confidential document it is submitted to selected recipients only and it may not be made available (in whole or in part), reproduced, delivered or transmitted to any other person (other than to your professional advisers) without BNP Paribas' written consent. Neither the information nor any opinion contained in this material constitutes a recommendation, solicitation or offer by BNP Paribas or its affiliates to buy or sell any security, futures contract, options contract, derivative instrument, or financial instrument, nor shall it be deemed to provide investment, tax, legal, accounting or other advice and BNP Paribas has no fiduciary duty towards its recipients. To the extent that any transaction is subsequently entered into between the recipient and BNP Paribas, such transaction will be entered into upon such terms as may be agreed by the parties in the relevant documentation.

The information contained in this document has been obtained from sources believed to be reliable, but there is no guarantee of the accuracy, completeness or suitability for any particular purpose of such information nor that such information has been independently verified by BNP Paribas or by any person. None of BNP Paribas, its members, directors, officers, agents or employees accepts any responsibility on liability whatsoever or makes any representation or warranty, express or implied, as to the accuracy or completeness of the information contained in this document, or any opinions based thereon. This material should neither be regarded as comprehensive nor sufficient for making decisions, nor should it be used in place of professional advice. You should consult your own advisors about any products or services described herein in order to evaluate the ments, suitability, and financial, legal, regulatory, accounting and tax issues raised by any investment and should not rely on BNP Paribas or its affiliates for this. Additional information may be provided on request, at our discretion. This material is only intended to generate discussions regarding particular instruments and investments and is subject to change, or may be discontinued, without notice. Any scenarios, assumptions, historical or simulated performances, indicative prices or examples of potential transactions or returns are included for illustrative purposes only. Investors may get back less than they invested. BNP Paribas gives no assurance that any favorable scenarios described are likely to happen, that it is possible to trade on the terms described herein or that any potential returns illustrated can be achieved. This document is current as at the date of its production and BNP Paribas is under no obligation to update or keep current the information herein. Certain strategies and/or potential transactions discussed in this document may involve the use of derivatives which may be complex in nature and may give rise to substantial risks, inclu

As an investment bank with a wide range of activities, BNP Paribas may face conflicts of interest and you should be aware that BNP Paribas and/or any of its affiliates may be long or short, for their own account or as agent, in investments, transactions or strategies referred to in this document or related products before the material is published to clients and that it may engage in transactions in a manner inconsistent with the views expressed in this document, either for their own account or for the account or for the account of their clients. Additionally, BNP Paribas may have acted as an investment banker or may have provided significant advice or investment services to companies or in relation to investments mentioned in this document. The information in this document is not intended for distribution to, or use by, any person or entity in any jurisdiction where (a) the distribution or use of such information would be contrary to law or regulations, or (b) BNP Paribas or a BNP Paribas affiliate would become subject to new or additional legal or regulatory requirements. Persons in possession of this document should inform themselves about possible legal restrictions and observe them accordingly. In no circumstances shall BNP Paribas or its affiliates be obliged to disclose any information that it has received on a confidential basis or to disclose the existence thereof. If you have a contractual relationship with a BNP Paribas affiliate that extends to products and services referenced in this material, the communications made hereby are, and shall be deemed made, as the context may require, by such entity.

All terms, pricing estimates and opinions included in this document constitute the judgement of BNP Paribas and its affiliates as of the date of the document and may be subject to change without notice. This type of information has inherent limitations which recipients must consider carefully. While the information has been prepared in good faith in accordance with BNP Paribas' or its affiliates' own internal models and other relevant sources, an analysis based on different models or assumptions may yield different results.

THIS DOCUMENT IS FOR THE GENERAL INFORMATION OF BNP PARIBAS'S CLIENTS AND IS A GENERAL SOLICITATION OF DERIVATIVES BUSINESS FOR THE PURPOSES OF, AND TO THE EXTENT IT IS SUBJECT TO, §§ 1.71 AND 23.605 OF THE U.S. COMMODITY EXCHANGE ACT.

The risk of loss associated with futures and options trading, and trading in any other products discussed in this material, can be substantial. Investors considering options trading may wish to review the Options Disclosure Document: Characteristics and Risks of Standardized Options at (http://www.optionsclearing.com/publications/risks/riskchap1.jsp). The information on this website is not part of or incorporated by reference in this document. Options involve risks and are not suitable for all investors. This brief statement does not disclose all the risks and other significant aspects in connection with transactions of the type described in this document.

This document is intended only for those defined under U.S. securities laws as "institutional Investors" and/or "major institutional investors". Securities transactions with BNP Paribas that result from the provision of this document will be effected by or through BNP Paribas Securities Corp., a U.S. registered broker-dealer and member of FINRA, the New York Stock Exchange and other principal exchanges.

Securities products offered by BNP Paribas Securities Corp. are not FDIC insured, are not bank deposits nor bank guaranteed, and are subject to investment risk, including possible loss of the principal invested.

© BNP Paribas. All rights reserved.

Brazil: Banco BNP Paribas Brasil SA is incorporated in Brazil as a multiple bank and authorized by the Central Bank of Brazil and the Securities and Exchange Commission to act as financial institution, administrator and custodian of investment funds. Notwithstanding the caution in obtaining and administering the information presented herein, BNP Paribas shall not be responsible for the accidental publication of incorrect information or for investment advice based on the information contained in this document, which may be modified without prior notice. Banco BNP Paribas Brasil SA and BNP Paribas SA do not provide legal, tax or accounting advice. The information contained in this document is for informational purposes only and the distributor and its customers should seek their own legal, accounting and tax advisors to evaluate the actual impacts of any potential structures. Banco BNP Paribas Brasil SA will not be responsible for any loss caused by the use of any information contained herein. This document is being communicated by Banco BNP Paribas Brasil S / A, Av. Pers. Juscelino Kubitscheck, 1909 São Paulo - SP, CEP 04543-906; Tel.: +55 11 3841 3100 (www.bnpparibas.com.br). All rights reserved. Ombudsman's Office of BNP Paribas Brazil - contacts: 0800 - 771 - 5999, ouvidoria@brbnpparibas.com.

Canada: This particular section applies to recipients who are located within or otherwise represent or are connected to and doing business within Canada. For recipients located in Quebec, upon receipt of this presentation, each recipient hereby confirms that it has expressly requested that it be drawn up in the English language only. Pour les résidents du Québec, par la réception de cette présentation, chaque destinataire confirme par les présentes qu'il a expressément exigé que celle ci soit rédigée en anglais seulement.

BNP Paribas Securities Corp. (the "Company") relies on the International Dealer Exemption pursuant to National Instrument 31 103 Registration Requirements, Exemptions and Ongoing Registrant Obligations in Canada. To the extent that you have an account with the Company or deal with representatives of the Company, please note that:

- (i) the Company is not registered in Canada to trade in securities,
- (ii) the Company's jurisdiction of residence is the United States of America;
- (iii) all or substantially all of the assets of the Company may be situated outside of Canada;
- (iv) there may be difficulty enforcing legal rights against the Company because of the above; and;
- (v) the names and addresses of the Company's agents for service of process in the local jurisdictions may be obtained upon request.

THIS DOCUMENT IS CONFIDENTIAL AND IS BEING SUBMITTED TO SELECTED RECIPIENTS ONLY WHO QUALIFY, AS REQUIRED UNDER APPLICABLE LAW IN CANADA, as CANADIAN PERMITTED CLIENTS, QUALIFIED PARTIES OR ACCREDITED COUNTERPARTIES, as those terms are defined under any applicable provincial Canadian regulations, blanket orders and provincial Acts.

The information contained herein is not, and under no circumstances is to be construed as, a prospectus, an advertisement, a public offering, an offer to sell Securities (as defined in the Specific Canadian Texts), or solicitation of an offer to buy Securities, in Canada or any province or territory thereof. Any offer or sale of securities described herein in Canada will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by a dealer properly registered under applicable laws or, alternatively, pursuant to an exemption from the dealer registration requirement in the relevant province or territory of Canada in which such offer or sale is made. The information contained herein is under no circumstances to be construed as investment advice in any province or territory of Canada and is not tailored to the needs of the recipient. To the extent that the information contained herein references securities of an issuer incorporated, formed or created under the laws of Canada or a province or territory of Canada, any trades in such securities must be conducted through an investment dealer registered in Canada. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed judgment upon these materials, the information contained herein, or the merits of any securities described herein, if any.

Financial instruments of the type described herein may involve a high degree of risk and their value may be highly volatile. Such risks may include, without limitation: (i) variations in interest rates, exchange rates, correlation, prices or levels of securities, commodities, funds and/or indices, indicators of creditworthiness or perceived creditworthiness of one or more underlying entities; (ii) default or insolvency of one or more underlying entities; (iii) adverse or unanticipated market events or developments, political developments or adverse corporate events involving an underlying security or entity; (iv) risk of illiquidity; (v) sovereign risk, and (vi) legal risk. In addition, where a transaction involves leverage, it must be recognized that whilst leverage presents opportunities to increase profit, it also has the effect of potentially increasing losses and doing so in a relatively short period of time. Such losses may significantly diminish the performance of the transaction or result in loss for you. You may be required to post margin or collateral at levels consistent with the internal policies of BNP Paribas. The risk of loss in trading derivatives can be substantial and, accordingly, derivatives are not suitable for every person.

Mexico: BNP Paribas and its US affiliates are not financial institutions licensed in Mexico. Consequently, the marketing and offering of financial products may be limited by applicable International Treaties on transborder financial services provisions and Mexican applicable financial laws. Therefore, any information regarding financial products will be provided upon request of the interested party, and financial services will be rendered out of Mexican territory only.

© BNP Paribas 2024. All rights reserved