

# Nigeria Viewpoint

## Trip notes: in search of hot money

### Two days in Nigeria: positive sentiment on reforms

We spent two days in Nigeria- Abuja and Lagos meeting with policymakers, multilaterals, banks, corporates, and private sector experts. The mood was positive coinciding with the positive adjustments to FX changes. Nigeria's central bank is on a promising path of making price stability the new primary objective – money supply growth is 50% and inflation is close to 30%, while the policy rate is 18.75%. A move towards orthodoxy involves tightening monetary policy using the policy rate as the main tool. That is, moving away from large negative real rates, the monetisation of fiscal deficits, and towards domestic yields that reflect market pricing and a more flexible exchange rate. On balance, we view the new government as pro-reform, and moving in a positive direction. The next big step is tightening the policy rate.

### ...to attract portfolio inflows

We expect the central bank to tighten interest rates aggressively in the next two meetings by 300bp in each of February and March meetings, taking the policy rate to almost 25%, which we see as the terminal rate. If year-end inflation projections of around 22-25% materialise, negative real rates would be gone and positive real rates would be more sustainable.

13 February 2024

GEM Economics  
EEMEA | Nigeria

**Tatonga Rusike**  
Sub-Saharan Africa Economist  
MLI (UK)  
+44 20 7996 8446  
[tatonga.rusike@bofa.com](mailto:tatonga.rusike@bofa.com)

**Merveille Paja**  
EEMEA Sovereign FI Strategist  
MLI (UK)  
+44 20 7996 6239  
[merveille.paja@bofa.com](mailto:merveille.paja@bofa.com)

**EEMEA FI Strategy & Economics**  
MLI (UK)

**GEMs FI Strategy & Economics**  
BofAS

[See Team Page for List of Analysts](#)

Trading ideas and investment strategies discussed herein may give rise to significant risk and are not suitable for all investors. Investors should have experience in relevant markets and the financial resources to absorb any losses arising from applying these ideas or strategies.

**BofA Securities does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Refer to important disclosures on page 8 to 10.**

12659114

Timestamp: 13 February 2024 04:05PM EST

# Trip feedback: The pain of reform without adequate dollar inflows

## Reform-minded and leaning towards orthodoxy

Mr Bola Tinubu was sworn in as President in May 2023. Investors were enthusiastic about his immediate removal of fuel subsidies and currency adjustment in June 2023, which signalled the government's pro-reform impetus. This was a departure from the previous government of 2015-23. There was not much policy action for remainder of the year, however, which led to stagnation in the reform effort. Instead, the focus was the appointment of key economic team members. The appointments of Mr Wale Edun as coordinating minister of the economy and finance and Mr Yemi Cardoso as governor of the central bank were viewed positively. Then monetary policy committee meetings were cancelled in September, November, and January as the committee is still being assembled pending new appointments of external members. In the meantime, speeches by the Finance Minister Edun and Governor Cardoso across various platforms gave that hope work was going on in the background. Recent actions have also renewed hope among investors, including FX reforms.

Reform is painful without adequate dollar inflows. Ideally, currency devaluation should go hand-in-hand with a tightening in monetary policy. Nigeria has experienced financial repression, where domestic securities yields were effectively compressed. Gradually rates have gone higher for government securities while central bank OMOs have attracted even higher rates. But the government was not able to access much foreign funding in 2H 2023.

## FX reforms a catalyst for foreign inflows

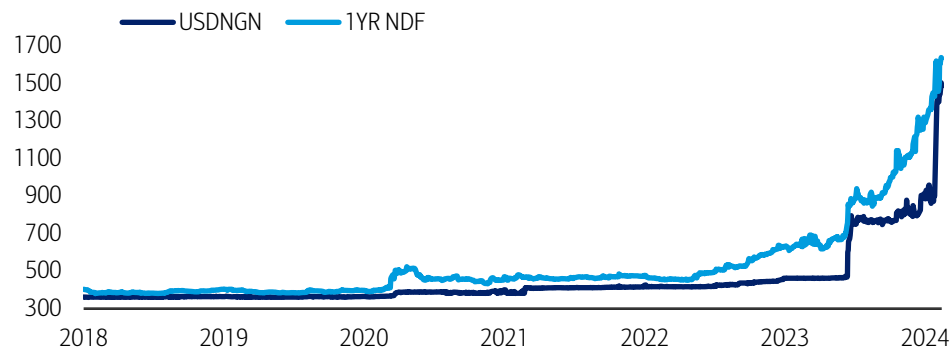
The most decisive and market-friendly action in 2024 is the second adjustment (devaluation) by the securities exchange, FMDQ, in calculating the NAFEM (Nigeria Autonomous Foreign Exchange Market) rate. The publishing of the calculation methodology makes the process transparent and a good signal. It uses the volume weighted average of trading transitions done in the last day as a starting point for the [next day's opening levels. This second currency adjustment narrowed the gap between parallel rates with the official market and hopefully one price is becoming the new normal.

At the same time, the CBN removed various limits such as the  $\pm 2.5\%$  cap spread on interbank foreign exchange transactions. It also removed the cap on FX retail transactions for items such as medical and education fees. However, for banks it placed a limit on net open positions of FX at 20% short and 0% long of shareholder funds. It is normal for banks to keep more FX in a country where inflation is rising, and the currency is weakening. The latest change resulted in some banks selling some of their dollar holdings on the open market. FX liquidity improved temporarily in the FMDQ turnover numbers.

Post the FX reforms of the past few weeks, we have seen some extreme moves in the market in general. Spot moved higher before the latest auction and peaked at around NGN1,500 given the \$ supply with the expectation to buy bills in the auctions slowly. It is now trending lower, at around NGN1,450. The effective rate in the 12M is around 23.5%, and the discount yield is around 18%. The NDF market, such as 1Y NDF ASW (bills vs implied yields), is back into positive territory for the first time in many years.

**Exhibit 1: Massive moves post FX reforms**

USD/NGN and 1YR NDF



Source: Bloomberg

BofA GLOBAL RESEARCH

**Exhibit 2: NGN Forecasts**

Naira floated in June 2023

|         | Q1 24 | Q2 24 | Q3 24 | Q4 24 | Q1 25 |
|---------|-------|-------|-------|-------|-------|
| USD-NGN | 1520  | 1530  | 1540  | 1550  | 1500  |

Source: BofA Global Research

BofA GLOBAL RESEARCH

**Naira outlook: we see stabilisation from here**

In our view, a flexible USDNGN + tight monetary policy including market-reflective yields in domestic securities could unlock FPIs in the near term. In that scenario, the naira could appreciate in nominal terms. We think it's currently undervalued. However, if monetary policy is not tightened enough the naira could continue to be weakening without a real turning point and diverge further from the parallel rate. Our baseline is stabilisation from here. During the week of FX reforms FX turnover increased close to \$1.8 billion per week compared to close to \$500 million per week. This suggests to us that higher FX turnover could result in a more stable currency.

**Official FX backlogs now lower**

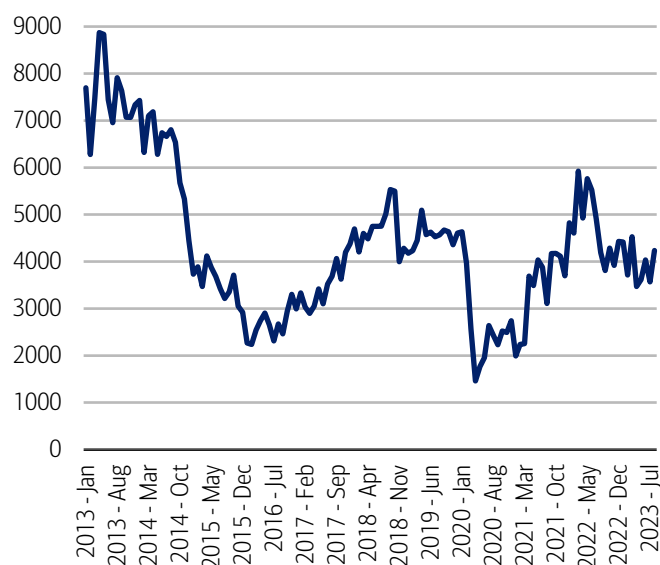
The new government inherited about \$7 billion in official FX backlogs in mid-2023. It appointed auditor Deloitte to verify the authenticity of the backlogs. The audit found that \$2.4 billion was not valid. The government has since paid back about \$2.5 billion, leaving an official backlog of around \$2.3 billion. The settlement of \$2.5 billion was covered by a loan extended by Afreximbank to NNPC, the state oil company. There could be other backlogs that are not officially recorded by the authorities, which explains why USDNGN has not stabilised or found a turning point.

**Other reforms could attract stable capital over time**

Broader reforms take time to attract long-term capital. Nigeria remains an oil-driven story, accounting for at least 90% of exports, half of fiscal revenues and nearly 10% of GDP. Oil production is 25% down from pre-pandemic levels, while IOCs are divesting from onshore oil fields due to production losses. However, local oil companies are investing in onshore fields, and they are better at managing pipeline vandalism and oil theft. Production could increase to 165mbpd of combined crude and condensates this year from 1.2mbpd in September 2022. Plus.

**Exhibit 3: Oil and gas monthly exports (USD millions)**

Monthly dollar export receipts from oil have been declining largely due to lower oil production and, to some extent, international prices

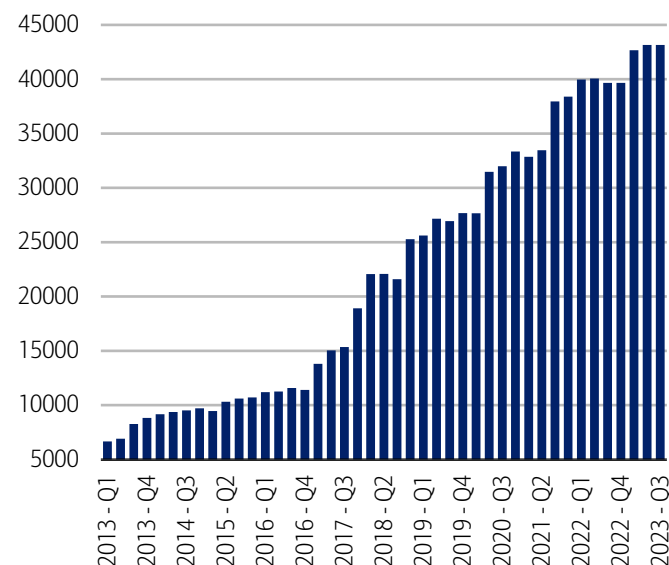


Source: Haver

BofA GLOBAL RESEARCH

**Exhibit 4: Public external debt historical trend (USD millions)**

At the same time, external debt stock has been rising



Source: Haver

BofA GLOBAL RESEARCH

**Structural issues at the heart of FX shortages**

At the heart of FX shortages in Nigeria are lower oil export receipts and rising external debt. Pre-pandemic, Nigeria relied on large oil export receipts, access to Eurobond markets, and foreign portfolio inflows. FDI has never been big. The loss of oil production has been a big negative for FX inflows. International markets closed, while FPIs exited central bank bills in 2018 and 2019. A good share of remittances became less formal. Things promise to be different from 2024 onwards, as long as foreign portfolio inflows come through and international debt markets open up. The Ivory Coast, Benin and Kenya have recently been successful in the Eurobond market. The World Bank could extend \$1.5 billion to Nigeria linked to policy adjustments, such as the removal of fuel subsidies, and tight and more conventional monetary policy.

**Monetary policy outlook: promising change**

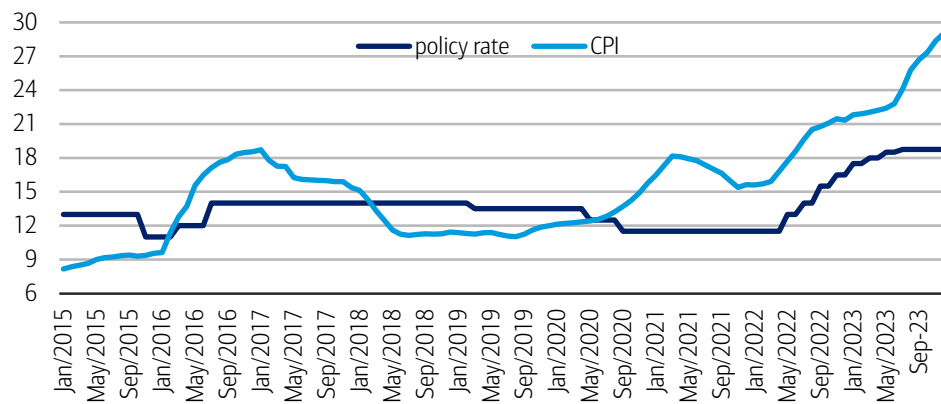
Monetary policy in Nigeria has been generally loose and characterised by financial repression. Inflation close to 30%, money supply growth close to 50%, negative real rates and low domestic yields do not reflect a good central bank. Other instruments have been used across the years to influence domestic liquidity conditions – standing deposit facility rate, cash reserve requirements ratio, along with monetary policy rate. The central bank is promising change. To refocus on inflation targeting objective. In order to do this, they would like to use interest rate as the main tool of monetary policy. In short returning to orthodoxy.

**Aggressive hikes to normalise monetary policy**

Inflation has yet to peak, while recent devaluation could keep upside pressures strong. However, market participants and policymakers believe second devaluation is not likely to cause substantial upside pressures to inflation as pricing was already operating on parallel rates. We do agree – somewhat. We see peak inflation around 33% in 2Q 24 with the benefit of base effects and 25% by year end, weaker than the government assumption of 21.4%. To get to a neutral level, we think the central bank would need to hike to 25%, by a total of 625bp at the next two meetings: likely 300-400bps at the first and the balance at the March meeting. That would show a strong commitment to tight monetary policy and keep real rates closer to neutral, and likely positive in late 2024 and into 2025. That would unlock FPIs, in our view. Markets would be disappointed by a 100-200bp hike.

**Exhibit 5: Inflation and monetary policy outlook**

Near-term aggressive tightening could restore the 2018-19 positive real rates scenarios by year end 2024 and into 1Q25

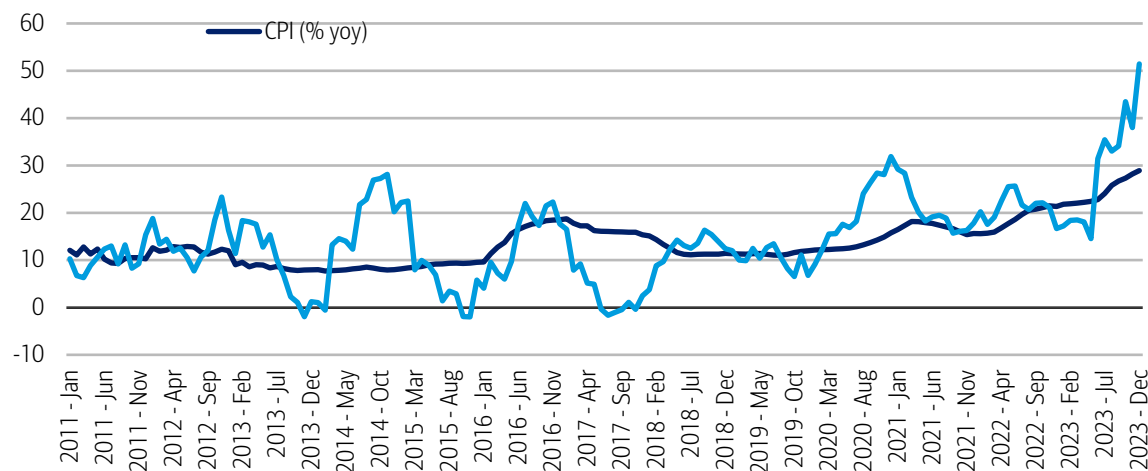


Source: Haver, BofA Global Research

BofA GLOBAL RESEARCH

**Exhibit 6: Inflation and money supply growth (M3)**

Growth in money supply is outstripping inflation, suggesting looser monetary policy or that the inflation basket may need revising

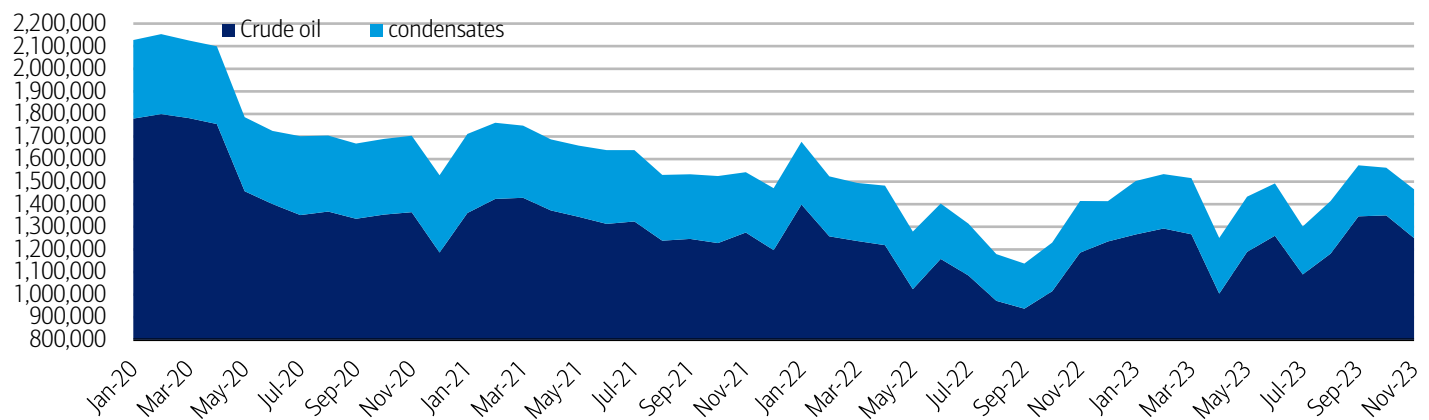


Source: Haver

BofA GLOBAL RESEARCH

**Exhibit 7: Oil production trends (barrels per day)**

Since dipping in September 2022, oil production has been gradually rising



Source: Nigeria Upstream Petroleum Sector

BofA GLOBAL RESEARCH

## Can oil production increase? Possibly to 1.65mbpd

Yes, on a reduction of oil losses (theft/pipeline vandalism) rather than big investment in new oil fields. High frequency data from government officials show that December and January output is likely to reach 1.6m bpd. Can crude get to 1.5mbpd? We doubt it. But 1.4mbpd is likely, from the peak after the recent peak of 1.35mbpd reached in Oct/Nov 2023. If that materialises, total oil production could be around 1.65mbpd at best. But this would still be a positive addition to FX inflows.

## IOCs divestments are positive for local oil firms

Local oil companies are buying stakes from IOCs in onshore fields. The IOCs are selling for various reasons. First, is the security issue with onshore fields/pipeline vandalism. Second, they are not pumping in new capital and are going greener. Deep offshore makes more sense for them and they can reinvest the funds in offshore. On the other hand, locals are putting new money into onshore and scaling up production of these oil fields. They have better relations with host communities, which reduces the security risk. Increasing local ownership in a resource sector is a political and economic positive in low-income countries whose resource ownership has been dominated by international companies.

## What about the impact of the Dangote refinery?

Dangote is likely to be a positive over the next 12 months. Full capacity is up to 650k bpd. However, refining petroleum products is yet to commence. Domestic demand for petrol is around 300 thousand barrels per day, which Dangote can fully supply and still contribute to exports.

## Regulatory concerns with the Petroleum Investment Act

Local players do not seem to have many concerns about the PIA, apart from the delays in approving deals/transactions. The fiscal regime for has been improved in the new PIA. NNPC used to delay paying cash calls to IOCs, which seem to have been reduced if not settled.

## Fuel subsidy is back - likely at a cost of \$7-10 billion

The government was bold enough to remove the fuel subsidy at the end of May 2023 and declared the liberalisation of the petroleum sector. The petroleum price was increased by 300% at the time but has relatively been flat since. The second adjustment of the exchange rate at the end of January from around NGN900 per USD to NGN1,450 has not been followed by another increase in local petroleum prices. Our on-the-ground consultations suggest that petroleum prices are unlikely to be raised in the near term because of the risk of social protests. The government is keen to avoid protests related to high fuel prices or more generally high cost of living.

To get to the fuel subsidy costs we look at historical data on petrol consumption. This varies. With full subsidies, consumption in a year could reach up to 70 million litres. For instance, the authorities' data show that petrol consumption averaged 64.14m litres in 1Q 2022 and 66.8m litres in 3Q 22. About 15.6m litres is said to be smuggled to neighbouring countries. When the subsidy was removed, consumption fell to 50m litres per day. So, we use average daily consumption of 50-70m litres to calculate the cost of the fuel subsidy. We arrive at a price NGN240 per litre before removal and an increase to NGN620 in June 2023. Converting to USD, domestic petrol prices rose to about 80 cents per litre post the subsidy removal. We don't expect any near-term changes, which could keep prices around 40 cents per litre. So, government would now be subsidising by about 40 cents per litre consumed. In a year petrol imports equal 18.25-25.55 billion litres. This means the cost of subsidies is likely \$7.3\$10.2 billion.

NNPC remains the only importer of petroleum in the country and subtracts the costs before remitting to Treasury oil-related fiscal revenues. The government does not pay directly but loses revenue when the NNPC deducts its costs and transmits less revenue.

One positive development is we will be able to better calculate NNPC revenues as it has started to bank with the CBN.

### **Fiscal is focused on raising revenues by admin measures.**

The government has set an ambitious revenue growth target of 18% from about 9%. All efforts are focused on improving administrative measures, modernising compliance, and information technology. The government is not keen on raising tax rates or aligning with other ECOWAS members, a long-standing IMF recommendation. NNPC revenues through the CBN might be a positive for transparency, though. The government needs to be prepared for higher borrowing costs stemming from tighter monetary policy.

The IMF is due to publish an Article 4 report in the coming weeks. The last published report was in February 2024. An IMF mission is likely this month along with the publication. We think the IMF is likely to be a lot more constructive about the new government's direction of travel compared with the policy inaction that was detailed in the February 2023 report.

### **Succession risk is a headwind**

President Tinubu is pro-reform and supports and trusts his economic team. However, he is 72 years and has health issues. Without President Tinubu it is difficult to envisage reform being sustained. The economic team is pro-reform but could be changed should another leader take over.

## **Special Disclosures**

Some of the securities discussed herein should only be considered for inclusion in accounts qualified for high risk investment.

# Disclosures

## Important Disclosures

**FUNDAMENTAL EQUITY OPINION KEY:** Opinions include a Volatility Risk Rating, an Investment Rating and an Income Rating. **VOLATILITY RISK RATINGS**, indicators of potential price fluctuation, are: A - Low, B - Medium and C - High. **INVESTMENT RATINGS** reflect the analyst's assessment of both a stock's absolute total return potential as well as its attractiveness for investment relative to other stocks within its Coverage Cluster (defined below). Our investment ratings are: 1 - Buy stocks are expected to have a total return of at least 10% and are the most attractive stocks in the coverage cluster; 2 - Neutral stocks are expected to remain flat or increase in value and are less attractive than Buy rated stocks and 3 - Underperform stocks are the least attractive stocks in a coverage cluster. An investment rating of 6 (No Rating) indicates that a stock is no longer trading on the basis of fundamentals. Analysts assign investment ratings considering, among other things, the 0-12 month total return expectation for a stock and the firm's guidelines for ratings dispersions (shown in the table below). The current price objective for a stock should be referenced to better understand the total return expectation at any given time. The price objective reflects the analyst's view of the potential price appreciation (depreciation).

| Investment rating | Total return expectation (within 12-month period of date of initial rating) | Ratings dispersion guidelines for coverage cluster <sup>R1</sup> |
|-------------------|---|--|
| Buy               | ≥ 10%   | ≤ 70%  |
| Neutral           | ≥ 0%  | ≤ 30%  |
| Underperform      | N/A   | ≥ 20%  |

<sup>R1</sup> Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

**INCOME RATINGS**, indicators of potential cash dividends, are: 7 - same/higher (dividend considered to be secure), 8 - same/lower (dividend not considered to be secure) and 9 - pays no cash dividend. **Coverage Cluster** is comprised of stocks covered by a single analyst or two or more analysts sharing a common industry, sector, region or other classification(s). A stock's coverage cluster is included in the most recent BofA Global Research report referencing the stock.

BofA Global Research personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.

BofA Securities fixed income analysts regularly interact with sales and trading desk personnel in connection with their research, including to ascertain pricing and liquidity in the fixed income markets.

## Other Important Disclosures

From time to time research analysts conduct site visits of covered issuers. BofA Global Research policies prohibit research analysts from accepting payment or reimbursement for travel expenses from the issuer for such visits.

Prices are indicative and for information purposes only. Except as otherwise stated in the report, for any recommendation in relation to an equity security, the price referenced is the publicly traded price of the security as of close of business on the day prior to the date of the report or, if the report is published during intraday trading, the price referenced is indicative of the traded price as of the date and time of the report and in relation to a debt security (including equity preferred and CDS), prices are indicative as of the date and time of the report and are from various sources including BofA Securities trading desks.

The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

This report may refer to fixed income securities or other financial instruments that may not be offered or sold in one or more states or jurisdictions, or to certain categories of investors, including retail investors. Readers of this report are advised that any discussion, recommendation or other mention of such instruments is not a solicitation or offer to transact in such instruments. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor for information relating to such instruments.

Rule 144A securities may be offered or sold only to persons in the U.S. who are Qualified Institutional Buyers within the meaning of Rule 144A under the Securities Act of 1933, as amended. SECURITIES OR OTHER FINANCIAL INSTRUMENTS DISCUSSED HEREIN MAY BE RATED BELOW INVESTMENT GRADE AND SHOULD THEREFORE ONLY BE CONSIDERED FOR INCLUSION IN ACCOUNTS QUALIFIED FOR SPECULATIVE INVESTMENT.

Recipients who are not institutional investors or market professionals should seek the advice of their independent financial advisor before considering information in this report in connection with any investment decision, or for a necessary explanation of its contents.

The securities or other financial instruments discussed in this report may be traded over-the-counter. Retail sales and/or distribution of this report may be made only in states where these instruments are exempt from registration or have been qualified for sale.

Officers of BofAS or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

This report, and the securities or other financial instruments discussed herein, may not be eligible for distribution or sale in all countries or to certain categories of investors, including retail investors.

Individuals identified as economists do not function as research analysts under U.S. law and reports prepared by them are not research reports under applicable U.S. rules and regulations.

Macroeconomic analysis is considered investment research for purposes of distribution in the U.K. under the rules of the Financial Conduct Authority.

### Information relating to Affiliates of BofAS, MLPF&S and Distribution of Affiliate Research Reports:

Refer to [BofA Global Research policies relating to conflicts of interest](#).

**"BofA Securities" includes BofA Securities, Inc. ("BofAS") and its affiliates. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor if they have questions concerning this report or concerning the appropriateness of any investment idea described herein for such investor. "BofA Securities" is a global brand for BofA Global Research.**

BofAS and/or Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") may in the future distribute, information of the following non-US affiliates in the US (short name: legal name, regulator): Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd., regulated by The Financial Service Board; MLI (UK): Merrill Lynch International, regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA); BofASE (France): BofA Securities Europe SA is authorized by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers (AMF). BofA Securities Europe SA ("BofASE") with registered address at 51, rue La Boétie, 75008 Paris is registered under no 842 602 690 RCS Paris. In accordance with the provisions of French Code Monétaire et Financier (Monetary and Financial Code), BofASE is an établissement de crédit et d'investissement (credit and investment institution) that is authorised and supervised by the European Central Bank and the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers. BofASE's share capital can be found at [www.bofamli.com/BofASEdisclaimer](http://www.bofamli.com/BofASEdisclaimer); BofA Europe (Milan): Bank of America Europe Designated Activity Company, Milan Branch, regulated by the Bank of Italy, the European Central Bank (ECB) and the Central Bank of Ireland (CBI); BofA Europe (Frankfurt): Bank of America Europe Designated Activity Company, Frankfurt Branch regulated by BaFin, the ECB and the CBI; BofA Europe (Madrid): Bank of America Europe Designated Activity Company, Sucursal en España, regulated by the Bank of Spain, the ECB and the CBI; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited, regulated by the Australian Securities and Investments Commission; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSF); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Canadian Investment Regulatory Organization; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa



de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; BofA Japan: BofA Securities Japan Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; BofA India: BofA Securities India Limited, regulated by the Securities and Exchange Board of India (SEBI); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.

This information: has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by BofA Japan, a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSF; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by BofA India; and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of Bank of America N.A., Australia Branch, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA. Information prepared and issued by Merrill Lynch (DIFC) is done so in accordance with the requirements of the DFSA conduct of business rules. BofA Europe (Frankfurt) distributes this information in Germany and is regulated by BaFin, the ECB and the CBI. BofA Securities entities, including BofA Europe and BofASE (France), may outsource/delegate the marketing and/or provision of certain research services or aspects of research services to other branches or members of the BofA Securities group. You may be contacted by a different BofA Securities entity acting for and on behalf of your service provider where permitted by applicable law. This does not change your service provider. Please refer to the [Electronic Communications Disclaimers](#) for further information.

This information has been prepared and issued by BofAS and/or one or more of its non-US affiliates. The author(s) of this information may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so. BofAS and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofAS and/or MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security discussed herein should do so through BofAS and/or MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information. For clients that are not accredited investors, expert investors or institutional investors Merrill Lynch (Singapore) Pte Ltd accepts full responsibility for the contents of this information distributed to such clients in Singapore.

#### General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Securities.

This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Securities clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute, investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

Securities and other financial instruments referred to herein, or recommended, offered or sold by BofA Securities, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. Digital assets are extremely speculative, volatile and are largely unregulated. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

BofA Securities is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

This report may contain a trading idea or recommendation which highlights a specific identified near-term catalyst or event impacting a security, issuer, industry sector or the market generally that presents a transaction opportunity, but does not have any impact on the analyst's particular "Overweight" or "Underweight" rating (which is based on a three month trade horizon). Trading ideas and recommendations may differ directionally from the analyst's rating on a security or issuer because they reflect the impact of a near-term catalyst or event.

Certain investment strategies and financial instruments discussed herein may only be appropriate for consideration in accounts qualified for high risk investment.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned in this report. Investors in such securities and instruments effectively assume currency risk.

BofAS or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. BofAS or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Securities, through business units other than BofA Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Securities is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information.

In the event that the recipient received this information pursuant to a contract between the recipient and BofAS for the provision of research services for a separate fee, and in connection therewith BofAS may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom BofAS has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by BofAS). If such recipient uses the services of BofAS in connection with the sale or purchase of a security referred to herein, BofAS may act as principal for its own account or as agent for another person. BofAS is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

#### Copyright and General Information:

Copyright 2024 Bank of America Corporation. All rights reserved. iQDatabase® is a registered service mark of Bank of America Corporation. This information is prepared for the use of BofA Securities clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of BofA Securities. BofA Global Research information is distributed simultaneously to internal and client websites and other portals by BofA Securities and is not publicly-available material. Any unauthorized use or disclosure is prohibited. Receipt and review of this information constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained herein (including any investment recommendations, estimates or price targets) without first obtaining express permission from an authorized officer of BofA Securities.

Materials prepared by BofA Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Securities, including investment banking personnel. BofA Securities has established information barriers between BofA Global Research and certain business groups. As a result, BofA Securities does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Global Research personnel's knowledge of legal proceedings in which any BofA Securities entity and/or its directors, officers and

employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Securities in connection with the legal proceedings or matters relevant to such proceedings.

This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of BofAS any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). BofA Global Research policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

The information herein (other than disclosure information relating to BofA Securities and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This information may contain links to third-party websites. BofA Securities is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this information and is not incorporated by reference. The inclusion of a link does not imply any endorsement by or any affiliation with BofA Securities. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. BofA Securities is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

All opinions, projections and estimates constitute the judgment of the author as of the date of publication and are subject to change without notice. Prices also are subject to change without notice. BofA Securities is under no obligation to update this information and BofA Securities ability to publish information on the subject issuer(s) in the future is subject to applicable quiet periods. You should therefore assume that BofA Securities will not update any fact, circumstance or opinion contained herein.

Certain outstanding reports or investment opinions relating to securities, financial instruments and/or issuers may no longer be current. Always refer to the most recent research report relating to an issuer prior to making an investment decision.

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BofAS or any of its affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.

Neither BofA Securities nor any officer or employee of BofA Securities accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.

# Research Analysts

## EEMEA FI Strategy & Economics

---

Trading ideas and investment strategies discussed herein may give rise to significant risk and are not suitable for all investors. Investors should have experience in relevant markets and the financial resources to absorb any losses arising from applying these ideas or strategies.

