

Labor Market Watch

January US Employment Preview

The rundown

We forecast nonfarm payrolls rose by 175k in January, slightly below 193k average gain over the previous six months. Government job gains at an expected 50k should once again be a big driver of job growth. This means that we forecast private sector employment increased by 125k, a slight downshift from the 134k run rate over the prior six months. Average hourly earnings, meanwhile, likely rose by 0.3% m/m or 4.1% y/y and average weekly hours likely remained at 34.3.

On the household survey side, we expect the unemployment rate to remain at 3.7% and for the participation rate to recover to 62.7% after the surprising decline in December. The report also includes the annual benchmark to the payroll numbers and updated population estimates will be incorporated into the household survey estimates.

The benchmark

Each year with the release of the January employment situation report, the payroll employment data are revised to incorporate new seasonal factors and are benchmarked to reflect more complete counts of employment from the Quarterly Census of Employment and Wages (QCEW). These data represent approximately 95% of total employment and are compiled from state level unemployment insurance data and are published with a lag of about five months. The benchmark revises the employment level for March of the previous year and then grows that revised level based on the establishment survey sample.

The good news is that we have a good sense of the size of the benchmark. The preliminary estimate is released ahead of time, and it suggests that nonfarm payrolls for March 2023 will be revised down by roughly 300k or roughly 0.2%. This is not an abnormally large revision (Exhibit 1).

Population update

In the report, the Bureau of Labor Statistics (BLS) will also incorporate new population estimates in the household survey. Importantly, this only affects the data on a go-forward basis. Therefore, this makes comparing level data from the household survey (e.g. employment, the labor force, and unemployment) between the December and January troublesome. So, take changes in levels with a grain of salt.

The good news is that typically ratios—the unemployment rate, labor force participation rate, and employment population ratio—aren't affected by the update. However, this isn't always the case as the population control in the last two years has explained the December-January change in the labor force participation rate (Exhibit 2). Therefore, we'll be keeping a close eye on the table BLS publishes that compares the household survey measures with and without the population control.

(Continued on next page)

25 January 2024

Economics
United States

US Economics
BofAS

Stephen Juneau
US Economist
BofAS
+1 202 442 7429
stephen.juneau@bofa.com

Michael Gapen
US Economist
BofAS
+1 646 855 3270
michael.gapen@bofa.com

See Team Page for List of Analysts

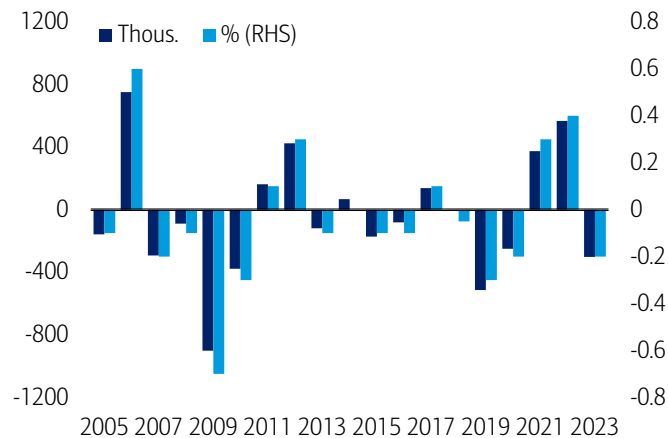
BofA Securities does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Refer to important disclosures on page 7 to 8.

12651003

Timestamp: 25 January 2024 06:24PM EST

Exhibit 1: Annual establishment survey benchmark revisions to nonfarm payrolls

The upcoming benchmark should revise employment levels down by about 300k in March 2023



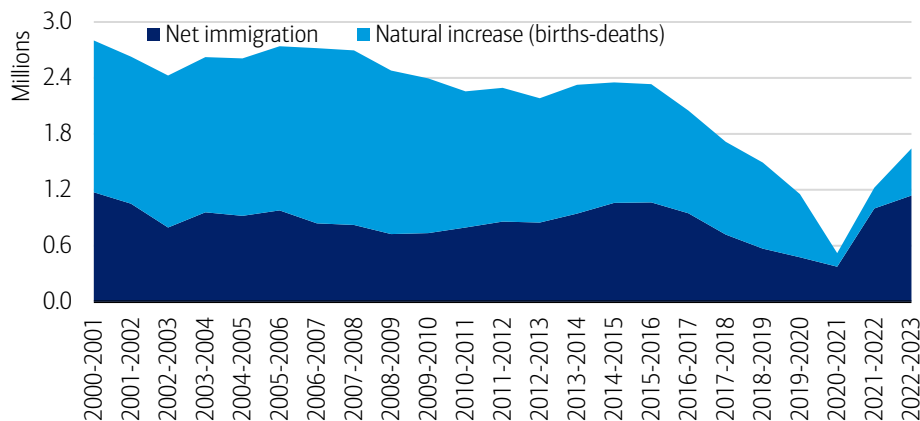
Source: Bureau of Labor Statistics (BLS)

BofA GLOBAL RESEARCH

In terms of expectations, we think that the population control is likely to be revised higher. This is largely based on estimates of population growth between July 2022 and July 2023 from the Census bureau which showed strong net migration again last year (Exhibit 3). Therefore, we would not be surprised to see a large increase between December and January for levels of employment and labor force especially since the participation rate of the foreign-born population is relatively high.

Exhibit 3: U.S. net immigration and natural population increase 2000-2001 to 2022-2023

Immigration has helped drive population growth in recent years



Source: William H. Frey analysis of US Census Bureau population estimates: intercensal 2000-2010, vintage 2020, and vintage 2023 released December 19, 2023

Note: Each year is the change from July 1 to June 30

BofA GLOBAL RESEARCH

Exhibit 2: How the updated population control did and did not affect the participation and unemployment rate in recent years (ppt)

The population control has not had an effect on the unemployment rate change but it did boost participation rates in 2023 and 2022

	Labor force participation rate			Unemployment rate		
	Dec-Jan change	Population control effect	Dec-Jan change, ex pop control	Dec-Jan change	Population control effect	Dec-Jan change, ex pop control
2023	0.1	0.1	0	-0.1	0	-0.1
2022	0.3	0.3	0	0.1	0	0.1
2021	-0.1	0	-0.1	-0.4	0	-0.4
2020	0.2	0	0.2	0.1	0	0.1
2019	0.1	0	0.1	0.1	0	0.1
2018	0	0	0	0	0	0
2017	0.2	0	0.2	0.1	0	0.1

Source: BLS

BofA GLOBAL RESEARCH

Key themes

In addition to these revisions and updates, we think the report will continue to illustrate the key themes within the labor market.

1. **Employment growth is slowing** but is still increasing by more than the rate needed to keep the unemployment rate flat. Using the Atlanta Fed's job calculator, employment needs to increase by roughly 108k per month to keep the unemployment rate unchanged over the next twelve months given the current

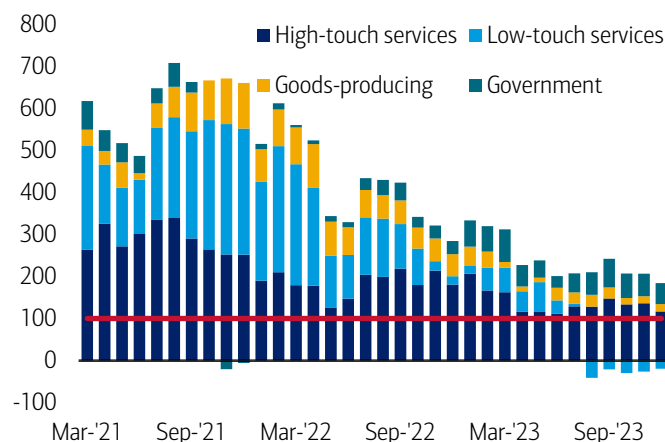
participation rate and some other assumptions. Therefore, 175k is still a healthy pace of hiring.

2. **Employment growth will remain narrowly driven** by acyclical sectors and “catch-up sectors.” We expect government, healthcare, education, and leisure and hospitality to continue to drive overall job growth in January. Government and healthcare are acyclical and still are catching up to the pre-pandemic trend. Hiring in leisure and hospitality should remain robust given strong consumer demand and the fact that employment remains well below the pre-pandemic trend. The global pandemic may be in the rearview mirror, but reopening forces are still influencing the US labor market and the ability of the economy to withstand higher policy rates.
3. **There are pockets of weakness.** The flip side of employment growth being narrowly driven is that there are some sectors that are weakening. Indeed, employment has fallen in each of the last five months in service-providing industries excluding leisure and hospitality, education and healthcare and other services (Exhibit 4). And growth in total private employment excluding leisure and hospitality and education and health has been roughly flat over the past six months.

The bottom line is that the report should continue to point to a cooling labor market, but not one that is showing significant signs of weakness.

Exhibit 4: Nonfarm payroll growth (m/m ch. thous, SA)

There are signs that employment is slowing in certain service sectors



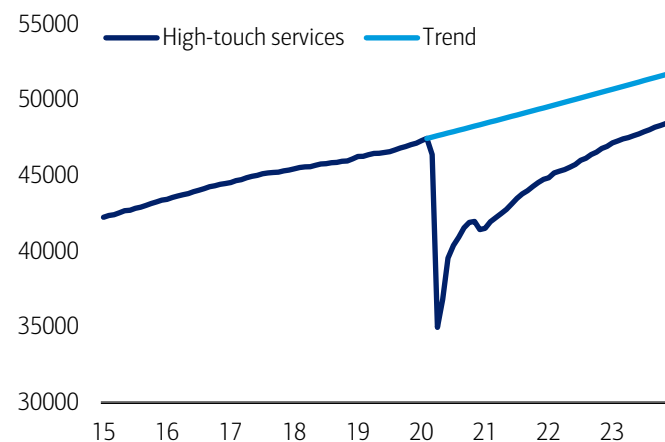
Source: BLS

Notes: High-touch services are defined by us to be the following sectors: leisure and hospitality, education and health, and other services. Low-touch services are all other service sectors

BofA GLOBAL RESEARCH

Exhibit 5: High-touch services employment vs. pre-pandemic trend (thous. SA)

Employment in high-touch services is still well below its pre-pandemic trend



Source: BLS

Note: We calculate the pre-pandemic trend based on the 5-year period prior to the pandemic

BofA GLOBAL RESEARCH

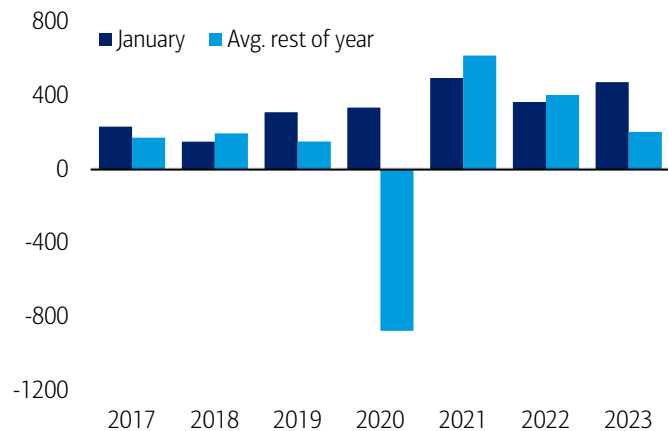
Thoughts on residual seasonality in January

We have fielded some questions around the potential for residual seasonality boosting employment in January. These questions likely stem in part from the fact that employment growth last January was much stronger than the rest of the year (Exhibit 6). However, this is not always the case when looking at data back to 2017.

While it is true that employment growth in January was stronger than the average over the course of the rest of the year, it appears to be driven by actual strength rather than seasonals. We check this by looking at the difference between change in seasonally adjusted and not-seasonally adjusted nonfarm payrolls (Exhibit 7). If seasonality was driving it, then we would have expected to see the difference between these two series look abnormally large. Instead, the difference between the two series was smaller than recent years. Therefore, we do not think residual seasonality will be a big factor in next week's employment report.

Exhibit 6: Change in nonfarm payrolls (SA, thous)

Employment growth in January 2023 was much stronger than the rest of the year

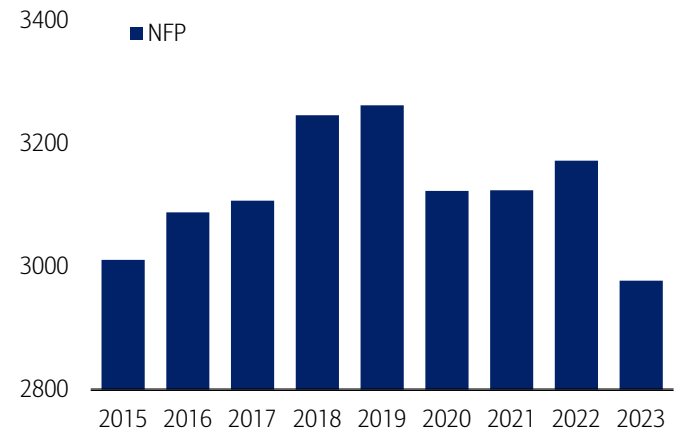


Source: BLS, Haver Analytics, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 7: Difference between the change in seasonally adjusted nonfarm payrolls and not seasonally adjusted nonfarm payrolls in January (thous)

We do not think the data point to residual seasonality boosting employment in January



Source: BLS, Haver Analytics, BofA Global Research

BofA GLOBAL RESEARCH

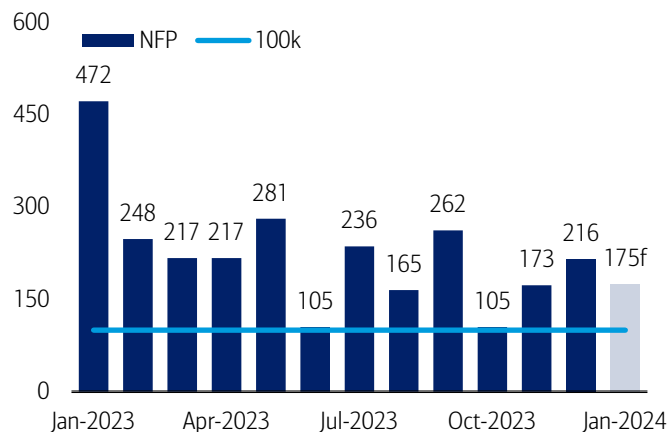
Implications for fed funds pricing and the policy outlook

If the report comes in line with our expectations, then it will likely mean little change for market pricing for Fed cuts. Markets currently see a 45% chance of a 25bp cut in March and a total of 140bps of cuts this year. We also would maintain our call for the Fed to start its cutting cycle in March if we get an employment report in line with our expectations, though it is becoming a closer call.

For the market to price in a greater likelihood of a March cut, we would likely need to see job growth of 100k or less and an increase in the unemployment rate. That would make us more comfortable with our call for March. Meanwhile, job growth of 250k+, stronger than expected wage growth and a fall in the u-rate would likely further price out the chance of a March cut.

Exhibit 8: Nonfarm payroll (NFP) employment (m/m ch. thous. SA)

We forecast NFP employment rose by 175k in January 2024.

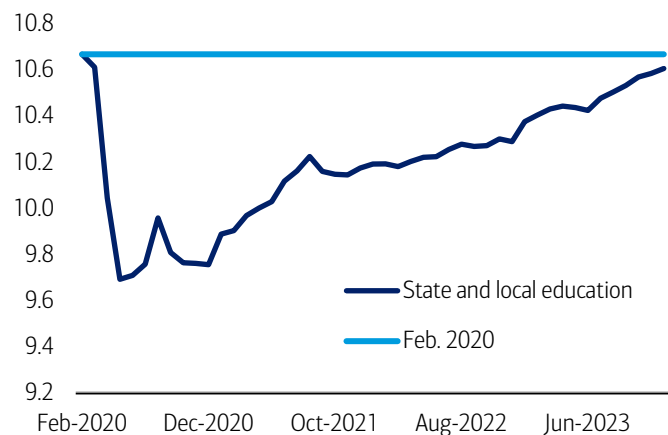


Source: BLS, Haver Analytics, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 10: State and local education employment (Mn. SA)

State and local education employment remains below February 2020 levels

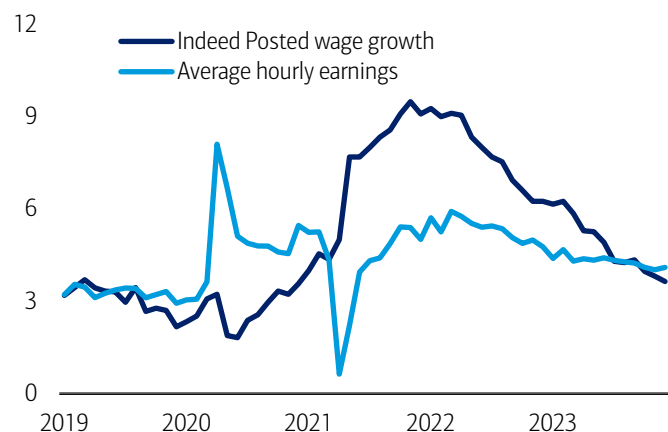


Source: BLS, Haver Analytics, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 12: Wage growth (% y/y)

Posted wages and average hourly earnings inflation are easing

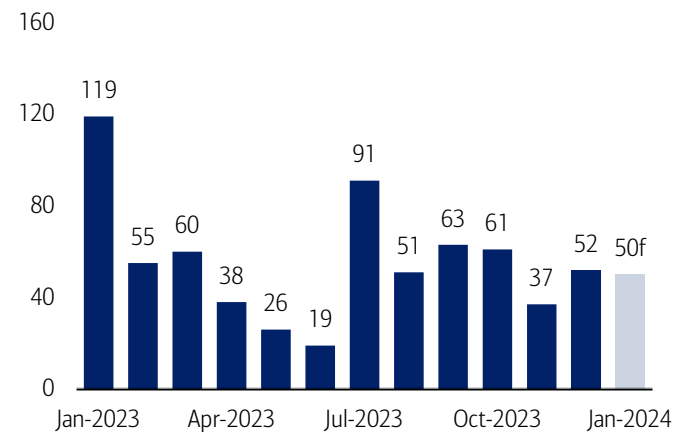


Source: BLS, Indeed Hiring Lab, Haver Analytics, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 9: Government payroll employment (m/m ch. thous. SA)

Government employment should remain a key driver of job growth in Dec.

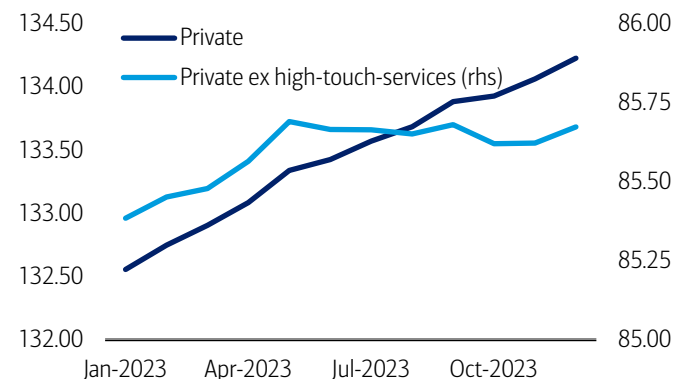


Source: BLS, Haver Analytics, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 11: Private employment (Mn. SA)

Private employment growth has been narrowly driven



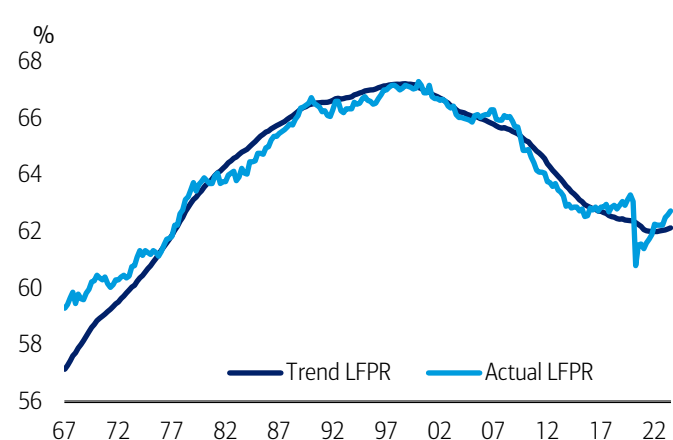
Source: BLS, Haver Analytics, BofA Global Research

Note: High-touch services includes education and health, leisure and hospitality, and other services

BofA GLOBAL RESEARCH

Exhibit 13: Labor force participation rate vs. a trend estimate (%)

The Labor Force participation rate is well above its trend



Source: BLS, Haver Analytics, BofA Global Research

BofA GLOBAL RESEARCH



Disclosures

Important Disclosures

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.

Other Important Disclosures

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.

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.

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.

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.

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.

Information relating to Non-US affiliates of BofA Securities and Distribution of Affiliate Research Reports:

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.bofam.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; BofAS 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; BofAS 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 BofAS 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 BofAS 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.

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.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

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

US Economics

Michael Gapen

US Economist
BofAS
+1 646 855 3270
michael.gapen@bofa.com

Aditya Bhawe

US Economist
BofAS
+1 646 855 9929
aditya.bhawe@bofa.com

Stephen Juneau

US Economist
BofAS
+1 202 442 7429
stephen.juneau@bofa.com

Shruti Mishra

US and Global Economist
BofAS
+1 646 855 1040
smishra44@bofa.com

Jeseo Park

US Economist
BofAS
+1 646 855 8688
jeseo.park@bofa.com

