The RIC Report

# Tax-efficient upgrades hiding in plain sight

12 March 2024

Investment Strategy
Global

## The RIC Outlook

It was supposed to be "the year of the bond". But Treasuries are on pace for a 13% loss, and with super-core inflation >4% & rising, are Fed cuts really that favorable for fixed income? We prefer quality equities, Prudent Yield credit, and scarce commodities.

## The universal tax

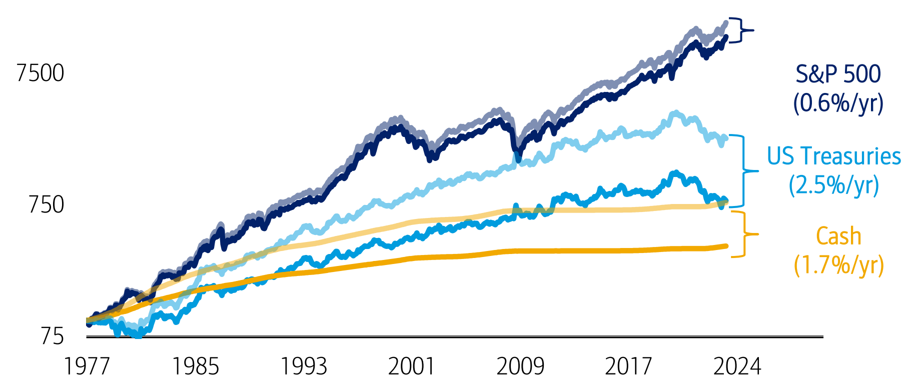
US federal debt will likely exceed 100% of GDP in July, soon surpassing the WWII peak. Almost 90% of the budget rises automatically. How does it end? Not with drama or default, but with taxes or with the hushed acceptance of that universal tax: inflation.

## Five ways to make portfolios more tax-efficient

It's March and Tax Day is coming. Ideas to start the conversation with a tax professional:

1. **Investment products**: the average exchange-traded fund (ETF) saves about 1ppt per year versus an identical mutual fund by avoiding taxable events.
2. **Asset allocation**: households bought $1tn of Treasuries & money markets in '23. All those interest payments are taxable as ordinary income, e.g. at 37%. As the tax bill comes due, the 20% capital gains rate for equities is more attractive (Exhibit 1).
3. **Fixed income**: our Prudent Yield sectors offer 6% tax-adjusted yields vs just 3.5% for the US Aggregate Bond benchmark. High yield munis are key (see interview).
4. **Equities**: buybacks beat dividends by 4ppt/year through low-friction compounding.
5. **The rest**: ideas abound if you know where to look. We flag MLPs, QDI, & CEFs.

**Exhibit 1: Taxes take 2-2.5ppt/year from bonds & cash; just 0.6ppt/year from stocks**
Total return gross & net of taxes for different assets; # in parenthesis = annual tax drag




**Source:** BofA Research Investment Committee, Bloomberg, ICE Data Services, LLC. *We assume a 37% tax rate for US Treasuries & cash; 20% for S&P 500. Note: US Treasuries=G8O2; Cash=G0O1. See appendix for tax disclosures.

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*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. For more information see the appendix.*



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# The RIC Outlook

In asset allocation we still favor high quality equities, Prudent Yield credit, and scarce commodities and would avoid government bonds.

### Equities up, conviction down

Savita Subramanian recently raised her S&P 500 target to 5,400 (+5-6%) but has lower conviction as sentiment improves.

The S&P 500 has averaged 5% pullbacks three times per year since 1929, and a 10% correction once per year. Treasury bonds don't hedge stocks when inflation is >3%; the correlation keeps spiraling higher (Exhibit 2). Commodities are a better hedge.

**Exhibit 2: Bonds only hedge stocks when inflation is at record lows**
Rolling 10-year correlation between US stocks and Treasury bonds


**Source:** BofA Research Investment Committee, Global Financial Data. Note: stocks = S&P 500 total return; bonds = 10-year US Treasury bond.
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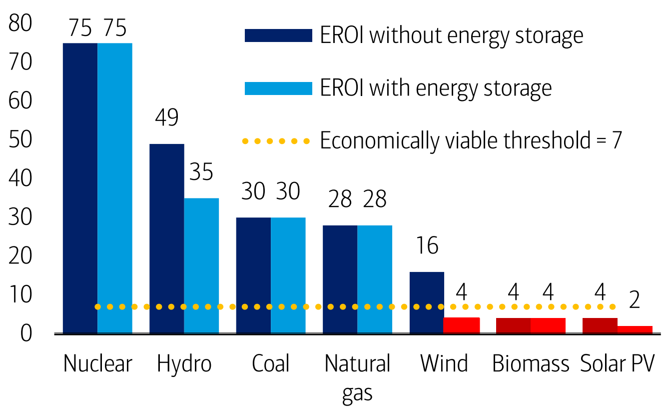
### Commodities: gold bugs and the nuclear necessity

Rising public debt, aging demographics, deglobalization, net zero, unionization…the secular shift from a 2% world to a 5% world is stagflationary. Own scarce value: nuclear energy & gold:

- **URA for nuclear energy:** Recently at COP28, >20 countries committed to triple their nuclear capacity. The secular bull case for uranium is intact as nuclear power offers the highest energy returned on energy invested (EROI) of any source (Exhibit 3). URA is our top pick (see *Have your yellowcake & eat it too*).
- **GLDM for gold:** Michael Hartnett notes that US debt is rising $1tn every 100 days. Central banks are buying gold at the fastest clip in at least 50 years (Exhibit 4). Gold is at all-time highs and was one of our top trades for 2024.

**Exhibit 3: The most important chart in energy policy**
How many joules of output per joule of input? Energy returned on energy invested (EROI) by source




**Source:** BofA Research Investment Committee, D. Weißbach, G. Ruprecht, A. Huke, K. Czerski, S. Gottlie, A. Hussein (2013); Red bars signal EROI below the economically viable threshold.
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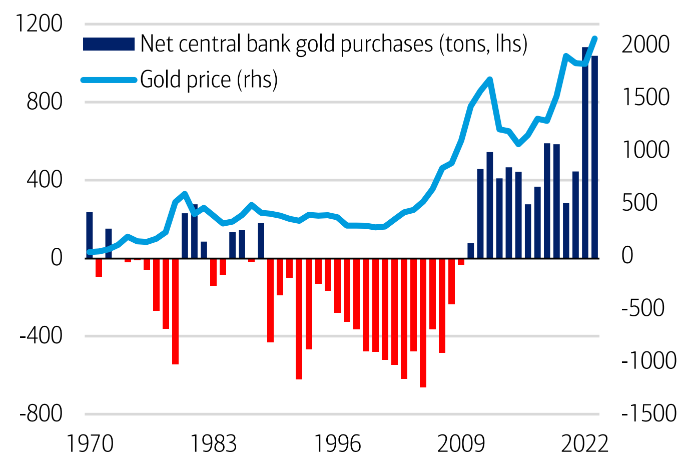
**Exhibit 4: Central banks hoard gold at the fastest pace in modern times**
Net official annual gold purchases vs spot gold price, annual




**Source:** BofA Research Investment Committee, Refinitiv GFMS, Metals Focus, Bloomberg, WGC
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### Year of the bond, denied

Treasuries (TLT) are on pace for a 13% loss in 2024 as stubborn inflation and robust growth have thwarted hopes for a big bond rally.

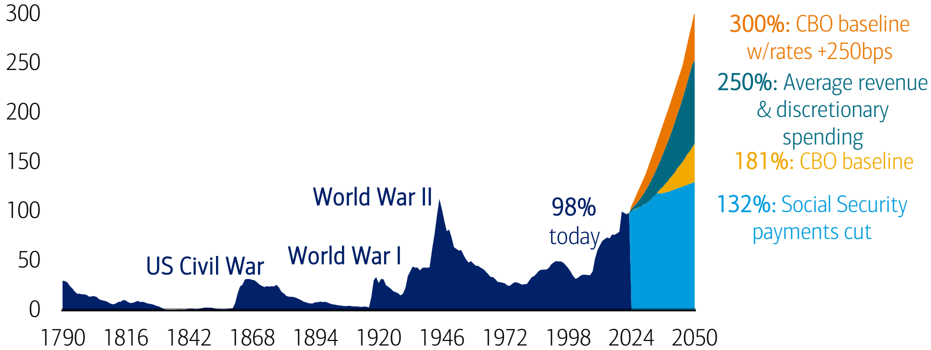
Prudent Yield sectors (high yield munis, "fallen angel" corporates, etc.) are up >8% over the past twelve months. With an average yield of 5.9%, these credit-sensitive trades should perform well as long as the economy avoids a recession, even amidst historically tight spreads.

### Higher government debt will likely put upward pressure on yields

US debt levels could breach 100% of GDP as early as July 2024. Federal debt held by the public peaked at 112% of GDP during WWII. Conservative estimates put the debt at 180% of GDP in the next 25 years (Exhibit 5).

Just 13% of government spending is "non-defense discretionary". The rest is politically untouchable mandatory entitlement spending (Social Security, Medicaid), defense spending, or net interest expense. Unproductive government spending pushes bond yields higher (see *The RIC Report: The probable path to impossible debts*).

**Exhibit 5: US debt on track to breach 100% of GDP by July 2024**
US federal debt held by the public, % GDP




**Source:** BofA Research Investment Committee, CBO, PWBM. NOTE: 132% Social Security payments are lowered once trust fund is exhausted; 181%: current taxes & spending are unchanged; 250%: taxes & spending revert to 30-year averages (discretionary outlays = 7.1% of GDP, 1.4% above baseline; revenues = 17.2% of GDP, 1.2% below baseline); and 300% current taxes & spending but real rate assumption is 250bps higher than baseline (real rates = 1.6% to 4.7% over forecast horizon). Federal debt held by the public as a percent of GDP estimated to reach 100% by July 26, 2024 using linear trend from current levels to 12/31/2053 with 250% average revenue scenario.

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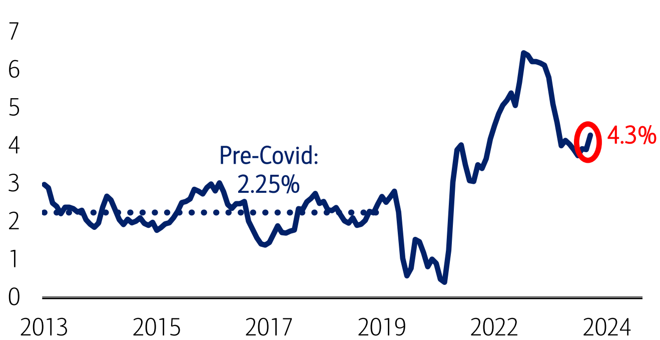
### Spiraling government debt ends with higher taxes or higher inflation

Debt-laden governments that will not default or cut spending have two options:

1. **Accept higher inflation:** "super-core" inflation accelerated to 4.3% in January (Exhibit 6). Our economists expect inflation to fall back toward the Fed's target by 2025. We are concerned about the risk that, in coming quarters, a Fed frustrated by sticky prices and stagflationary fiscal policies could quietly accept a higher *de facto* level. Is there such a great difference between, say, 4% trend inflation and an official 2% long-term target with very very "long and variable lags"?

2. **Raise taxes:** top marginal tax rates on corporates and individuals have been higher 75% of the time in the past 100 years (Exhibit 7). In our view, it's more likely that tax rates move higher before they move much lower.

**Exhibit 6: US "super-core" inflation is above target & rising**
US CPI core services less housing, y/y%




**Source:** BofA Research Investment Committee, Bloomberg

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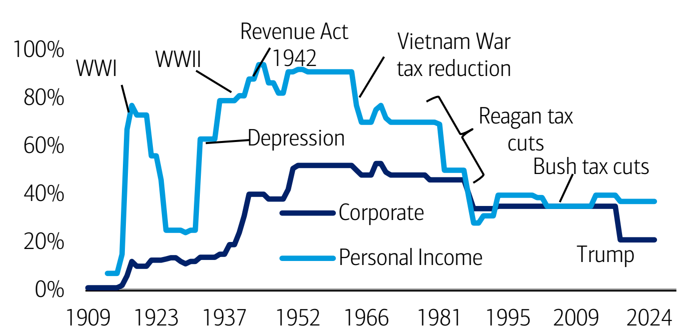
**Exhibit 7: Taxes are already near 100-year lows**
Corporate & personal income taxes since 1909 (top tax bracket)




**Source:** BofA Research Investment Committee, Bloomberg

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# Five ways to boost tax efficiency

Larger debt burdens make higher taxes or higher inflation (the universal tax) more likely. We see long-term value in simple, tax-aware investing advice. Investors can make portfolios more tax efficient by 1) owning ETFs vs. mutual funds; 2) owning equities vs. government bonds; 3) owning Prudent Yield vs. fixed income benchmarks; 4) favoring buybacks over dividends; and 5) using other assets with favorable tax treatment.

*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. For more information see the appendix.*

### 1. For the same investment, ETFs save almost 1ppt/year vs mutual funds by avoiding taxable events.

ETFs are more tax efficient than mutual funds thanks to the creation and redemption process for shares. There's an ETF for almost every asset class and adoption is still in the early stages. See our primer *Exchange Traded Funds: Primer: the relentless hunt for diversification* for more.

Mutual funds are sometimes forced to sell assets to meet redemption requests. Any realized capital gains from sales are distributed to shareholders, triggering a tax event. On average, mutual fund tax events cost investors 1.3% per year vs just 0.4% for ETFs.

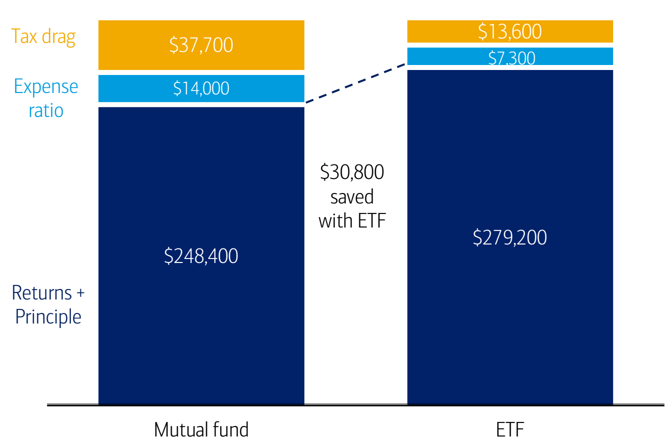
An investor who bought $100,000 of an S&P 500 ETF in October 2013 and held for a decade would have accumulated $279,000, compared to just $248,000 if the investment was in an S&P 500 mutual fund. Tax efficiencies account for $24,100 of savings, 24% of the original investment (Exhibit 8)

### $250bn in tax savings & ETFs are just getting started

We estimate that ETFs have helped save investors $250bn in taxes, even when accounting for the 57% of mutual funds currently held in tax-sheltered retirement accounts by US households.

With $9.1tn in AUM, global equity ETFs account for >30% of total investment fund assets and could grow to 44% over the next decade (Exhibit 9). Bond ETFs got a later start, but with $2.1tn in assets they are growing rapidly, already comprising >20% of total bond fund assets.

**Exhibit 8: ETF savings stack up over the long run**
Hypothetical example: $100,000 invested in S&P 500 funds




**Source:** BofA Research Investment Committee, Investment Company Institute, Moussawi et al. (2022), Bloomberg; ETF = SPY US Equity, mutual fund = SWPPX US Equity, relative to SPTR index. See appendix for tax disclosures.

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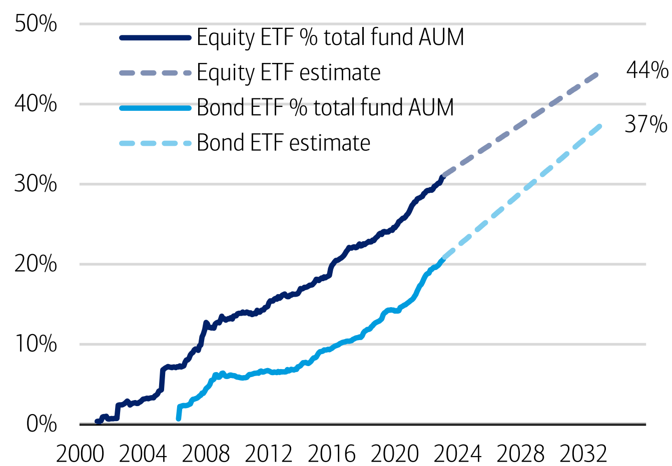
**Exhibit 9: ETFs could be 40% of total funds within the next decade**
% AUM in equities & bonds ETFs vs total AUM in ETFs & mutual funds




**Source:** BofA Research Investment Committee, EPFR global, Bloomberg

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**2. Each year, you lose 2.5% from Treasury gains to taxes vs. 0.6% from stocks.**
The income paid by US government bonds is taxable at federal ordinary income rates, up to 37% for top earners. Interest from cash accounts, I-bonds, and other fixed income is also taxable as ordinary income.

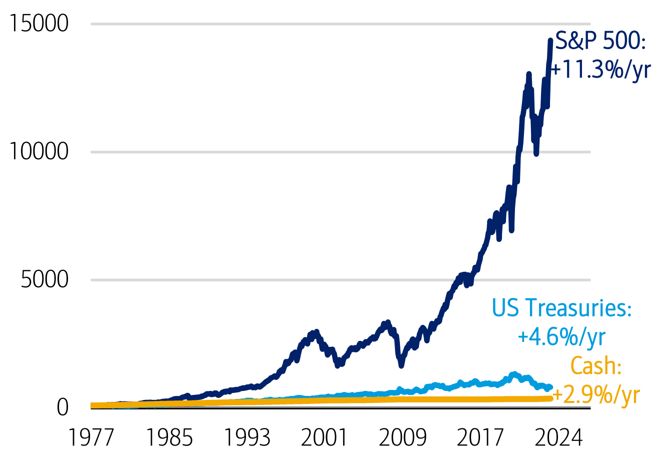
Most equity payouts, however, are classified as qualified dividend income (QDI), and taxed at a maximum rate of 20%. Equities have outperformed bonds and cash by 6.7-8.5% a year, net of taxes, for nearly 50 years (Exhibit 10).

Equities are more tax-efficient because dividends are a lower proportion of total equity returns. Fixed income returns, by contrast, come almost entirely from coupon payments, which can be taxable at the highest rates. Paying taxes on distributions every year blunts the magic of compounding.

The tax man ultimately comes when an asset is sold. Capital gains on long-term equity and bond holdings are taxed at 20%. Assuming holdings from 1977 to today, taxes would reduce S&P 500 gains from >14,000% to 11,400%. Big bills accompany big gains. A Treasury investment fund would also face a 20% capital gains tax upon sale, lowering total returns (accounting for taxes during the holding period) from 713% to 571%.

US households continue to buy bonds, despite the tax disadvantage, with $1tn of bond inflows recorded last year alone (Exhibit 11).

**Exhibit 10: Equities are more tax efficient than Treasuries & cash**
Cumulative total returns for US stocks, Treasuries, and cash net of taxes*




**Source:** BofA Research Investment Committee, Bloomberg, ICE Data Services, LLC. *We assume a 37% tax rate for US Treasuries & cash; 20% for S&P 500. Note: US Treasuries=G8O2; Cash=G0O1. See appendix for tax disclosures.

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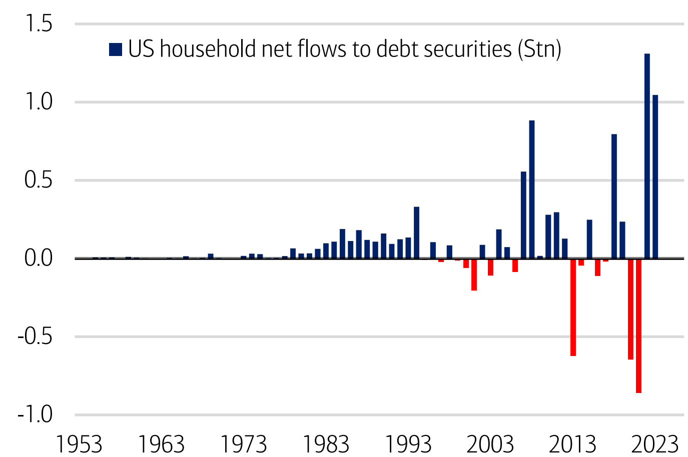
**Exhibit 11: US household investors bought >$1tn of bonds last year**
US household net flows to debt securities ($tn)




**Source:** BofA Research Investment Committee, Haver, Fed Flow of Funds. Note: we adjust flows by mutual fund holdings.

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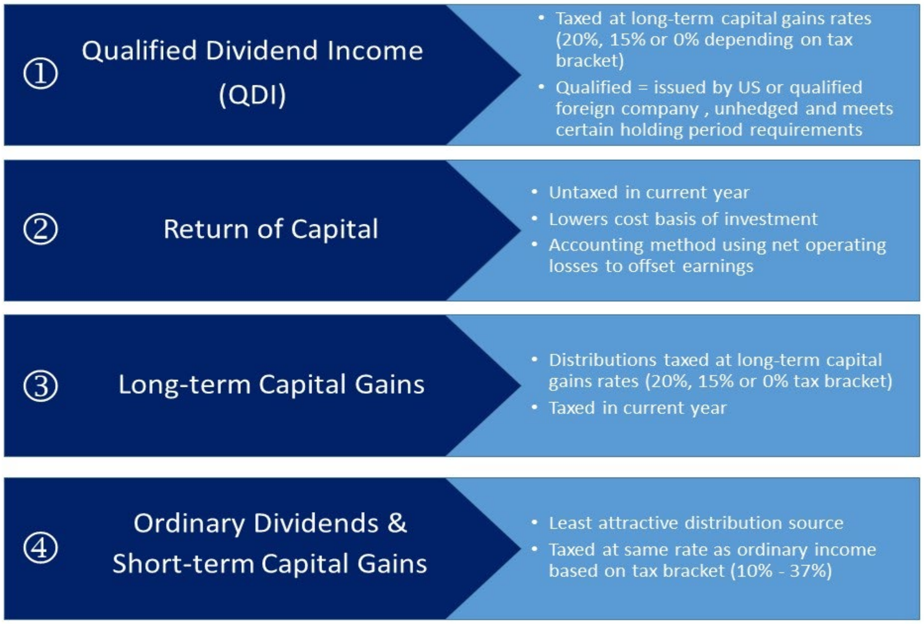
### Four sources of taxable income for investors
Investors who receive payouts of any kind (e.g., bond coupons, stock dividends, ETF & mutual fund distributions, etc.) are typically subject to four types of taxable income. Exhibit 12 shows the four sources in order of most to least tax efficient.

**Exhibit 12: Four sources of taxable income**
Key tax designations for income distributions




**Source:** BofA Research Investment Committee; See appendix for tax disclosures.

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### 3. Prudent Yield offers 6% tax-adjusted yield vs 3.5% for US Aggregate Bond benchmark.

Prudent Yield sectors averaged 8.8% returns after taxes in 2023 compared to just 4.4% for the US Aggregate Bond Index and 1.5% for long term Treasuries.

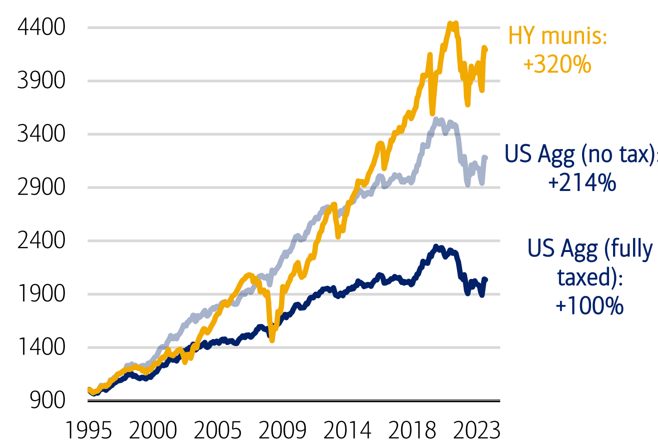
- **High yield municipal bonds (HYMB, HYD, FMHI):** in our interview this month, Ian Rogow explains how high tax-equivalent yields and low credit risk make muni bonds one of the most attractive sectors in fixed income.

  HY munis offer 8-9% yields on a tax-adjusted basis, 450bps more than the US aggregate bond index. Aggregate bond coupons are taxable at ordinary income rates. Returns have trailed HY munis by >220% since Dec 1995 (Exhibit 13).

  BB-rated municipal bonds account for about 75% of the benchmark HY muni index and have equivalent default rates to BBB-rated corporate bonds (see *Own HY munis for more yield, less default*).

- **Preferreds (PFFD, PFF, PFXF):** many preferred stock ETFs pay at least partial QDI, taxed at a 20% max rate. 63% of fund holdings in our coverage are QDI eligible

**Exhibit 13: HY munis outperformed the US Aggregate bond index by 220% net of taxes**
Hypothetical growth of $1000 in US Agg gross & net of taxes vs HY munis




**Source:** BofA Research Investment Committee, Bloomberg, ICE Data Services, LLC. Note: US Agg = US00; HY munis = LMEHTR. "Fully taxed" assumes US aggregate bond coupon payments are taxed at 37% top ordinary rate and HY munis coupons are not taxed. See appendix for tax disclosures.

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Preferred ETFs are still attractive with yields above 6% and a track record of strong risk-adjusted returns. Companies also pay dividends to preferred shareholders first, making the payouts more secure than those of common stock (see *Exchange Traded Funds: Initiating coverage of preferred stock ETFs*).

## 4. Buybacks outperform dividends by 3.8ppt per year through low-friction compounding.

Investors looking for long-term wealth accumulation should favor buybacks over dividends. The S&P 500 buyback factor has led dividend factors by 200-380bps per year since 1994 and has led the broad index by 2,800%. Outperformance persists net of taxes (Exhibit 14 – *Exchange Traded Funds: Banking on buybacks*).

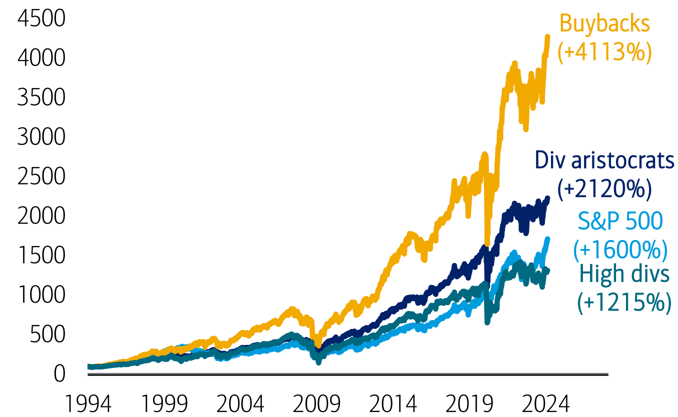
Share repurchases are more tax efficient than dividends. Even if dividends are qualified, payouts are taxed at the end of every year where they're received. An investor who pays taxes on reinvested dividends has less money to compound every year.

Holding companies that execute repurchase programs do not typically trigger a tax event until an investor sells their shares.

### Basics on buyback ETFs (DIVB & PKW)

Nimble sector exposures help buyback funds outperform. PKW holds companies whose share count has been reduced by at least 5% in the trailing 12 months, regardless of sector.

**Exhibit 14: Buybacks have been most tax-efficient capital return factor**
Cumulative returns of different S&P 500 factors, net of taxes* (%)




**Source:** BofA Research Investment Committee, Bloomberg. *We assume a 20% tax rate on dividends assessed QDI.

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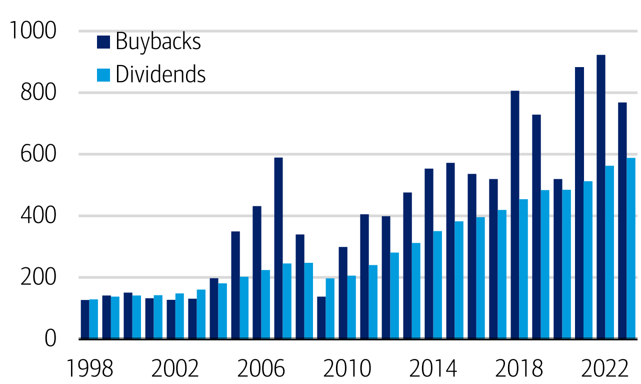
Buybacks have proliferated since the SEC adopted rule 10b-18 in 1982. S&P 500 companies have notched $11tn in gross buybacks since 1998 vs $7.8tn in dividends (Exhibit 15). The S&P 500's dividend yield has fallen to near all-time lows thanks, in part, to widespread adoption of share repurchase programs (Exhibit 16).

### Dividend funds should be reserved for true income investors (SCHD, VYM)

Dividends are an attractive trade this year and can benefit from lower rates. They can also act as a haven if inflation reaccelerates. Funds like **SPYD**, **RDVY**, and **VYM** are good proxies for our equity team's dividend factors.

Tactical trades aside, income investors should prioritize high dividend funds. Many dividend ETFs are essentially S&P 500 trackers that offer low yields and have lower total returns over the long run. **SCHD** is our top-rated fund with a 3.8% yield; 1-rated **FDL** & **SPYD** boast yields >5% (see *Exchange Traded Funds: A deep dive on dividend funds*).

**Exhibit 15: US corporates have embraced buybacks > dividends**
Aggregate value of S&P 500 gross buybacks and dividends ($bn)




**Source:** BofA Research Investment Committee, Haver, Standard & Poor's. Note: 2023 data is annualized.

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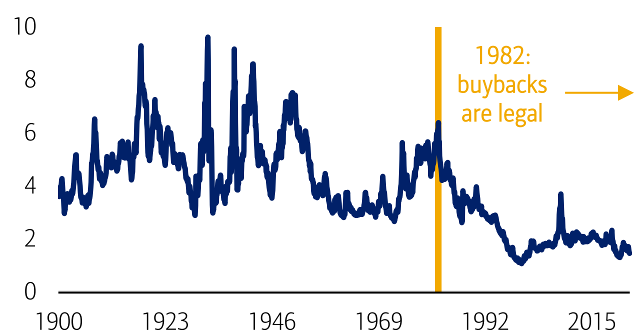
**Exhibit 16: Dividend yield near all-time lows as buybacks proliferate**
S&P 500 dividend yield, %




**Source:** BofA Research Investment Committee, Global Financial Data

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### 5. Tax ideas abound if you know where to look

Investors should audit portfolios to understand where tax costs can be lowered. Many ETFs take advantage of QDI & return of capital for tax efficient distribution.

- **MLPs (MLPX, MLPA)** can typically claim deductions to lower taxable income below cash paid-out. As a result, distributions to investors are often treated as return of capital, making them tax-exempt in the year received. 80% of MPLX & MLPA distributions last year, on average, were classified as return of capital. Yields today are 5-7%.

- **US sector funds (IYK, XLU):** dividends paid by US sector funds like IYK and XLU with relatively high yields are classified as 100% QDI (Exhibit 17). The same is true of broad equity funds that most already own like SPY or VOO. Only half of payouts from funds like ESGE or IRBO are taxed at the lower QDI rate.

- **International ETFs (EIDO, ILF, PICK, IDV)**: investing abroad doesn't mean a larger tax bill. Dividends paid by eligible foreign companies can be taxed at lower rates. For example, EIDO, which tracks Indonesia, has 100% qualified dividends. ILF, a Latin America fund pays 93% QDI.

**Exhibit 17: Tax efficiency is a global phenomenon**

Fund name, rating, yield, and % of distribution classified as QDI

| Ticker | Name | Rating | Yield | QDI |
|---|---|---|---|---|
| IYK | iShares U.S. Consumer Staples ETF | 1-FV | 2.7% | 100 % |
| EIDO | iShares MSCI Indonesia ETF | 1-FV | 2.9% | 100 % |
| XLU | Utilities Select Sector SPDR Fund | 1-NV | 3.4% | 100 % |
| ILF | iShares Latin America 40 ETF | 2-FV | 4.7% | 93% |
| PICK | iShares MSCI Global Metals & Mining Producers | 2-FV | 4.5% | 90% |
| IDV | iShares International Select Dividend ETF | 2-FV | 6.6% | 87% |
| ESGE | iShares ESG Aware MSCI EM ETF | 3-NV | 2.6% | 49% |
| IRBO | iShares Robotics and AI Multisector ETF | 3-NV | 0.9% | 53% |

**Source:** BofA Research Investment Committee, Bloomberg, fund filings. QDI based on 2023 filings. See appendix for tax disclosures.

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### Closed end funds can be a good option for tax-conscious investors

Many CEFs pay dividends from net investment income (NII) which is usually taxed as ordinary income. But some payouts are tax exempt (munis) and others can use QDI or return of capital to make distributions more tax efficient.

- **Muni bond CEF (MFM, NZF, NMZ)** payouts are tax-exempt. Some funds have also adopted more flexible distribution policies. Leveraged muni bond CEFs trade at -10% discounts, well below norms and offer a 6-7% tax-adjusted yield. We're cautious near term as leverage costs remain elevated but investors with a longer time horizon can capture value (see *Closed End Funds: If they don't cut, we sell*).

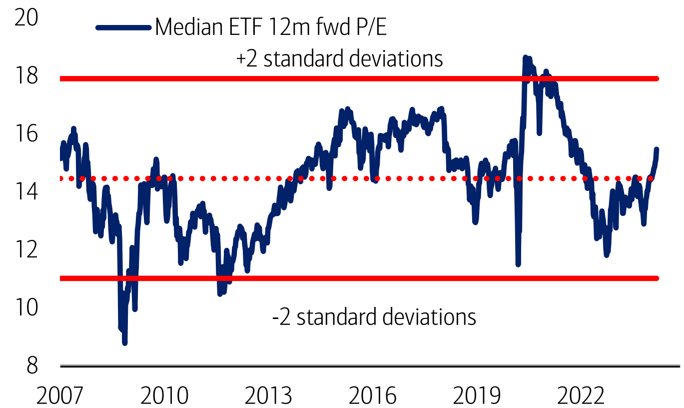
- **Tax-advantaged CEFs (AGD, ETG, GDV, HTD)** are leveraged equity funds that trade at -10% discounts. 7% yields are sheltered by nearly 60% QDI, on average. AGD and ETG are top-rated global equity funds while GDV and HTD are US focused.

# ETF Valuation

### February median ETF P/E highest since '21

- The median equity ETF in our coverage ended February at 15.5x forward earnings, the highest since November 2021.
- Composite valuations continue to rise. 5 categories now trade +2 standard deviations above average.
- Large cap market cap funds trade close to +2 standard deviations above average. All size factors now trade above average, up from January.
- Information technology's composite valuation has surpassed +2 standard deviations above average, suggesting near record highs.
- China's composite valuation rose significantly in February, rising 0.5 standard deviations. Latin America is now the cheapest broad region.

**Exhibit 18: Equity ETF valuations now well above average**
Median 12-month forward P/E ratio across BofA equity ETF coverage




**Source:** BofA Research Investment Committee, Factset. Note: Median calculated using12m fwd P/E ratios for all equity ETFs in our coverage.

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**Exhibit 19: Equity ETF valuations by category**
ETF valuation ratios and composite score (lower is better)

| | Sub-category | Composite Valuation (stdev) | 12m fwd P/E | 12m fwd P/B | 12m fwd EV/EBITDA | 12m fwd P/FCF | Top-rated fund | Bottom-rated fund | Link |
|---|---|---|---|---|---|---|---|---|---|
| US Equity Sector | Communication Services | -0.14 | 18.85 | 2.89 | 9.42 | 16.94 | XLC | IYZ | Getting so defensive |
| | Energy | 0.10 | 11.98 | 1.98 | 6.20 | 12.61 | XLE | PXI | Getting so defensive |
| | Utilities | 0.12 | 15.42 | 1.71 | 10.96 | -84.06 | XLU | RSPU | Getting so defensive |
| | Real Estate | 0.20 | 16.20 | 2.42 | 17.85 | n.a. | XLRE | SCHH | Getting so defensive |
| | Consumer Staples | 0.78 | 19.19 | 5.08 | 13.04 | 21.85 | IYK | RSPS | Getting so defensive |
| | Consumer Discretionary | 0.87 | 23.43 | 6.72 | 13.28 | 23.06 | VCR | IYC | ETFs for the cyclical extremes |
| | Financials | 0.96 | 15.20 | 1.84 | na | na | XLF | FXO | ETFs for the cyclical extremes |
| | Industrials | 1.54 | 20.60 | 5.07 | 13.48 | 23.02 | XLI | FXR | ETFs for the cyclical extremes |
| | Materials | 1.57 | 19.65 | 2.64 | 10.91 | 25.55 | FXZ | IYM | ETFs for the cyclical extremes |
| | Health Care | 1.88 | 20.82 | 4.48 | 15.83 | 19.46 | XLV | PTH | Getting so defensive |
| | Information Technology | 2.35 | 29.54 | 8.02 | 19.93 | 32.12 | XLK | QTEC | ETFs for the cyclical extremes |
| Single Factor | International Dividend | -0.25 | 11.04 | 1.49 | 7.62 | 14.89 | VYMI | PID | Going global: markets to rent & markets to own |
| | Buybacks | 0.20 | 13.29 | 2.76 | 9.21 | 13.86 | DIVB | IPKW | Banking on buybacks |
| | Dividend | 0.28 | 14.07 | 2.72 | 10.17 | 17.34 | SCHD | LVHD | A deep dive on dividend funds |
| | Value | 1.21 | 15.52 | 2.48 | 10.86 | 19.16 | VTV | RPV | Initiating coverage of value ETFs |
| | Quality | 1.54 | 19.24 | 5.29 | 13.22 | 20.98 | COWZ | QLC | One factor to rule them all |
| | Growth | 2.16 | 30.37 | 9.57 | 19.49 | 32.11 | SCHG | IVW | Growth for contrarians |
| US Size | Small Cap Equity | 0.51 | 22.23 | 1.95 | 10.96 | 25.72 | CALF | FYX | Shopping small |
| | Mid Cap | 0.58 | 16.96 | 2.48 | 11.48 | 21.00 | SCHM | IJH | The Sweet Middle |
| | Large Cap Non Market Cap | 0.87 | 17.58 | 3.48 | 12.34 | 20.28 | FNDX | LRGF | The Sweet Middle |
| | Large Cap Market Cap | 1.97 | 23.45 | 4.59 | 14.64 | 24.87 | IVV | OEF | The Sweet Middle |
| Thematic | Clean Energy | 0.67 | 17.48 | 1.83 | 22.02 | -19.79 | ICLN | PBW | Valuations up, catalysts down: Neutral clean energy ETFs |
| | ESG Broad | 1.18 | 18.57 | 3.48 | 13.11 | 23.88 | VOTE | ESGE | ESG ETFs get a better model and a VOTE |
| | AI | 2.12 | 32.24 | 3.85 | 17.82 | 63.57 | AIQ | DTEC | Some AI ETFs are smarter than others |
| Int'l Equity | Single-country Emerging Market | -2.98 | 16.40 | 1.32 | 9.21 | -135.10 | KSA | VNM | Buying emerging markets on their merits |
| | Latin America | -0.63 | 10.00 | 1.58 | 5.40 | 9.95 | EWW | ECH | All the global growth you don't own |
| | China | -0.49 | 9.97 | 1.09 | 8.76 | 16.84 | KBA | EWH | Going global: markets to rent & markets to own |
| | Canada | 0.19 | 14.36 | 1.79 | 9.92 | 19.86 | FLCA | EWC | Going global: markets to rent & markets to own |
| | Europe | 0.65 | 13.36 | 1.82 | 8.97 | 19.27 | FEZ | FDD | Going global: markets to rent & markets to own |
| | Developed Markets ex-US | 0.84 | 14.21 | 1.66 | 9.17 | 21.20 | HEFA | RODM | Going global: markets to rent & markets to own |
| | Global ex-US | 1.00 | 14.34 | 1.68 | 9.46 | 21.85 | VEU | ACWX | Going global: markets to rent & markets to own |
| | Emerging Markets | 1.04 | 13.75 | 1.62 | 9.19 | 21.30 | EMXC | DBEM | All the global growth you don't own |
| | Japan | 1.58 | 16.46 | 1.53 | 11.19 | 27.40 | DXJ | JPXN | Going global: markets to rent & markets to own |
| | India | 2.73 | 24.53 | 3.76 | 15.96 | 39.06 | EPI | SMIN | Going global: markets to rent & markets to own |

**Source:** BofA Research Investment Committee, Factset. Note: All valuation metrics are based on next twelve month (NTM) I/B/E/S estimates. "Composite Valuation" is the market-cap weighted average standard deviation of each fund's P/E, P/B, EV/EBITDA, and P/FCF ratios. A higher number indicates that funds are more expensive relative to history while lower numbers suggest that funds are inexpensive.

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# RIC Themes Watch

**Prudent Yield is fully invested, supported by BofA insights**

The BofA Dynamic Prudent Yield strategy remains fully invested, with no changes for March. Prudent Yield sector ETFs showed strength, averaging 0.6% returns as the 10Y US Treasury yield marched above 4%.

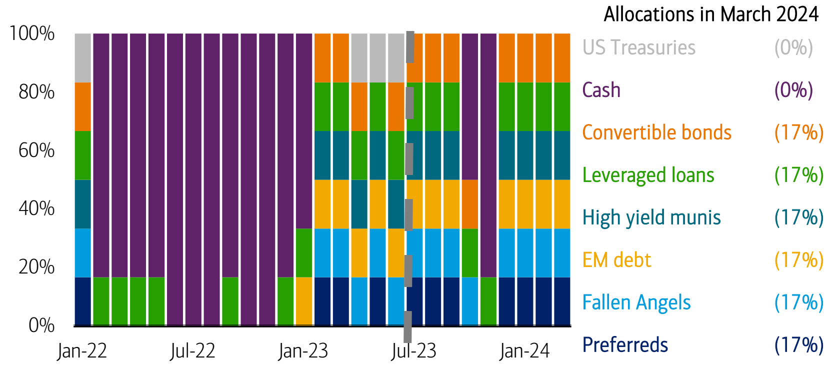
In the month that was, we reiterated our bullish view on HY munis, discussed the strong 2024 outlook for preferreds with Michael Youngworth, and revisited our preference for credit over equities and bonds in a "5% world".

For details on the Dynamic Prudent Yield Strategy including the full Appendix see: *The RIC Report: A new bond strategy for the end of 60/40*.

*Monthly updates can be received via email immediately after publishing by subscribing to "The ETF Angle". Full ETF coverage can be found on our* ETF Research Library.

**Exhibit 20: Dynamic Prudent Yield remains fully invested**

Historical allocation of backtested Dynamic Prudent Yield Strategy, 2022-2024




**Source:** BofA Research Investment Committee, Bloomberg, ICE Data Services LLC. Note: weights rounded from 16.7%. This performance is backtested and does not represent the actual performance of any account or fund. Back-tested performance depicts the theoretical (not actual) performance of a particular strategy over the time period indicated. No representation is being made that any actual portfolio is likely to have achieved returns similar to those shown herein. See appendix for more details

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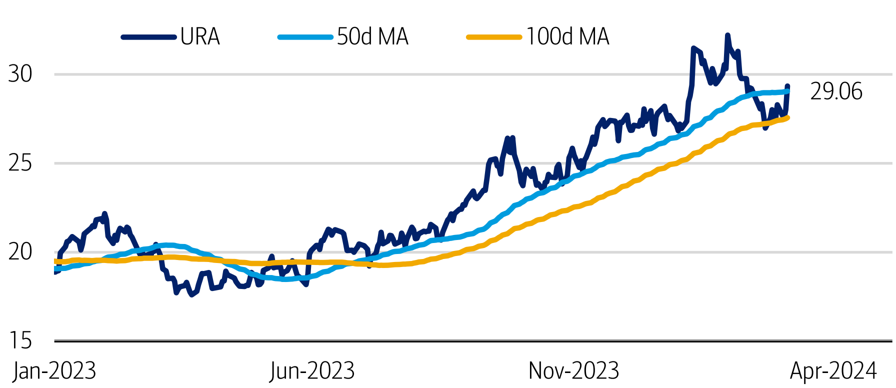
**Correction in nuclear stocks offers a good entry point**

Uranium's third bull market has room to run given favorable valuations, substantial upside expected from our equity colleagues Lawson Winder and Jason Fairclough, and positive signals from our recent meeting with public policy and industry leaders.

**Exhibit 21: URA dip turned into a technical rebound**

URA price vs 100-day moving average and potential price level support




**Source:** BofA Research Investment Committee, Bloomberg

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# Macro & Econ Highlights

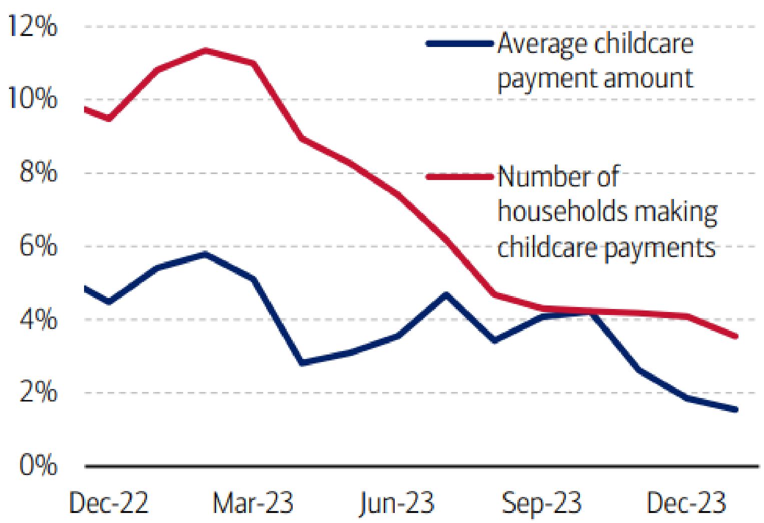
## Childcare inflation poses threat to women's progress

In February, the Bank of America Institute took a deep dive on one of the untold stories of inflation: childcare costs. The average American family pays 32% more for childcare vs 2019. Two main implications stand out: 1.) low-income households could have limited access to childcare; 2.) women may reverse employment seen in the pandemic.

Women in the US have seen steady gains in the labor market since WWII, but the pandemic reversed this trend. Continued disruption could be driven by increased childcare needs. High costs of childcare and disruptive school and daycare closures remain even 4 years after the start of the pandemic.

No country is immune to these disruptions, but employment trends in the US make it an outlier when facing childcare issues. The US lags other OECD countries when it comes to female labor market participation. At the same time, the US ranks second highest among these developed nations for net childcare costs.

**Exhibit 22: The number of households making childcare payments has declined at a much quicker rate than the cost of payment over the past year**
Average monthly childcare payment per household and number of households making such payments (%YoY, 3-month moving average)




**Source:** Bank of America internal data

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## It's a bull's world after all

The beginning of March included major updates from BofA strategy and economics teams. Michael Gapen notes strong supply-side resilience, revising his GDP outlook higher for 2024 to 2.1%. He sees a labor force rebound supporting stronger growth for the rest of the year. The economics team maintains that the Fed will cut 75bps this year, beginning in June.

Savita Subramanian also revised her S&P 500 target, up to 5400 from 5000. In her view, corporates are increasing focus on productivity. While many investors point to bubble-like conditions, she sees limited areas of "euphoria" that pose risk to markets.

Technicals are telling a similar story. Stephen Suttmeier notes a strong January and February has typically signaled strong markets for the remainder oof the year. Layering signals from a presidential election year, he targets 5490-5510 by year end for the S&P 500.

## All eyes on oil

As new economic data mollifies recession fears, oil is back in vogue. Gaining 6% in February, oil notches a third month of strong gains. Since December, oil prices have benefitted from OPEC+ cuts and other geopolitics. The BofA Commodities team has $75 and $80 price targets for WTI and Brent respectively, but the medium-term outlook is marked by potential catalysts.

Rate cuts and OPEC discipline are the two key ingredients needed for oil to shake off a two-year slump. In the near term, Paul Ciana highlights the conditions for a breakout in March. As oil tests its 3-month high, he highlights 3 technical signals that could point to a bullish run. He highlights that if this were to occur, sectors like S&P energy could also benefit after topping in 2023.

## Metals rally supported by green energy security

China and Indonesia have recently increased their supply of nickel, a key input into batteries, putting pressure on spot prices and impacting miners in the US and Australia. This has prompted both countries to look to ways to decrease reliance on China and Indonesia as suppliers. Through innovation and tapping into other partner countries, the US looks to strengthen its green energy supply chain.

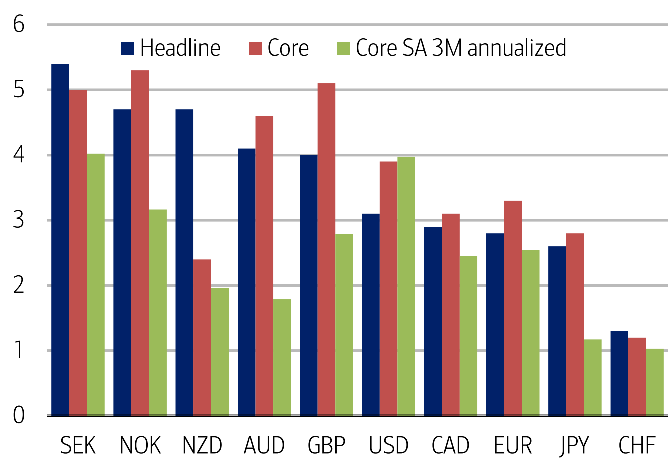
BofA ETF Research recently updated its metals and mining ETF coverage. In their view, nuclear is a top choice for investors looking to capture clean energy trends. Top funds URA and NLR are exposed to uranium. For investors interested in capturing a traditional approach to metal and mining, XME remains the best choice.

## Weaker dollar is consensus, but skepticism is warranted

The US dollar is a key driver for asset classes like commodities and emerging markets. Consensus points to the USD trending lower this year as the Federal Reserve begins to cut rates and inflation softens.  USD bulls, on the other hand, point out that “US exceptionalism” could rear its head. A higher (or stable) USD could be driven by US growth outperformance, sticky inflation, an election year, and geopolitical risks.

To the tune of US exceptionalism, BofA’s Rates and Currencies research team point to an all-time low unemployment rate that could keep markets tight and the USD strong. They expect low unemployment to keep central banks cautious, as tight labor markets could spur a reacceleration of inflation, despite benign data to start 2024.

**Exhibit 23: Latest inflation rate in G10 economies**
Inflation still high in most G10 economies




**Source:** Bloomberg, Haver and BofA Global Research

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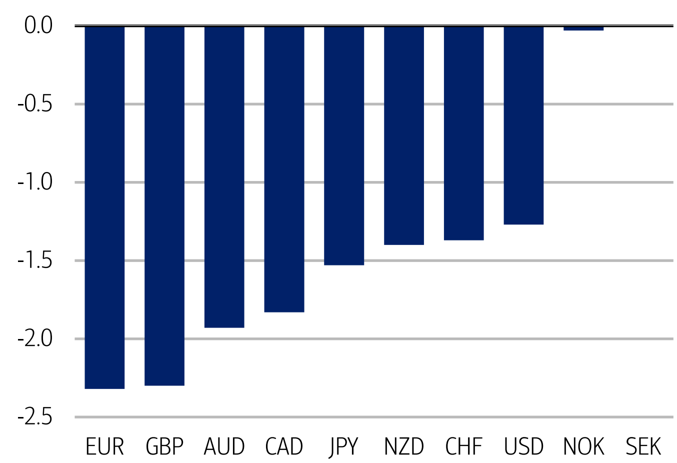
**Exhibit 24: Unemployment rare – Natural rate of unemployment (NAIRU)**
Stretched labor markets in all G10 economies




**Source:** Bloomberg and BofA Global Research

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# Equity Highlights

## As tech bubbles, utilities smaller than ever

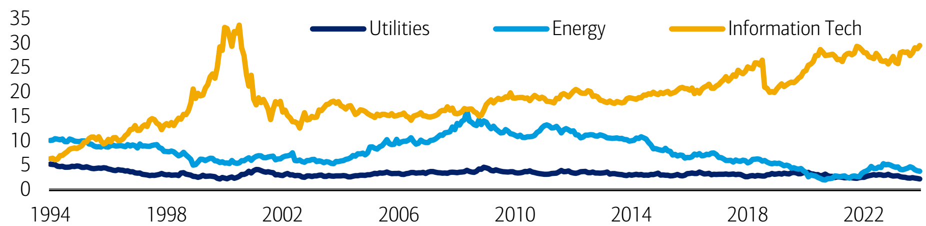
In last month's RIC report, we took a deep dive on GICS sectors. We found that when a company changes GICS sectors, it can positively impact price returns. This month, the BofA Utilities and Clean Tech team takes a deep dive on the shrinking share of the utilities sector in the S&P 500.

While utilities have always represented a small fraction of S&P 500 market cap, increasing concentration in the technology has further crowded out the sector. Utilities weight in the S&P 500 is now at an all-time low.

Investors that anticipate a correction in the Magnificent 7 may look to utilities' cheap relative valuation to the S&P 500. However, Julien Dumoulin Smith points out that utilities are closer to fair value when looking beyond simple valuation metrics.

**Exhibit 25: S&P Subsector Long-Term Comparison: Tech approaching its 1999-2000 high mix of S&P while Utilities hit record low**

Utility shrinking has accelerated as tech has been a 'winner take all' sector




**Source:** Bloomberg

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## Nothing can stay gold forever: downgrading CRE mREITs

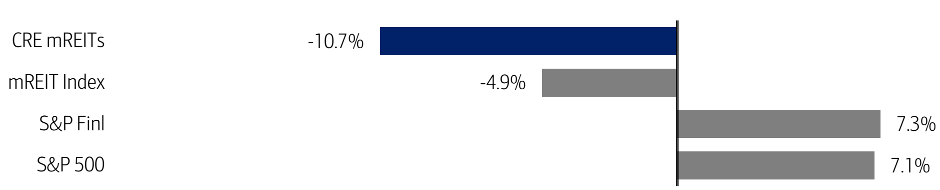
Weakening fundamentals lead Eric Dray and Derek Hewitt to take a cautious outlook on CRE mREITs. Despite a relatively strong 2023, higher for longer rates add uncertainty across collateral types, vintages, and maturities. The team has downgraded 6 CRE mREITs, with no Buy-rated mREITs currently in their coverage.

Applying their risk framework, Hewitt and Dray see headwinds in: 1.) US office fundamentals; 2.) Loans originated post-COVID; and 3.) Portfolios maturing in 2024. Further, 4Q earnings showed some cracks in credit, and management commentary was cautious. In their view, CRE mREITs are trading below their long-term average but are not discounted enough to reflect current risks.

For transaction volumes to rebound, management teams say the front end of the curve needs to fall 150bps. For reference, our economics team only has 75bps of rate cuts priced in for 2024.

**Exhibit 26: CRE mREIT performance in 2024 YTD has lagged**

Total return, 1/1/2024 – 3/1/2024




**Source:** Bloomberg, BofA Global Research

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## Eli Lilly has a wide moat despite GLP-1 frenzy

GLP-1s, AI, bubbles, and market euphoria have left investors searching for great opportunities without added euphoria. Geoff Meacham recently raised his PO 25% for Eli Lilly pointing to a wide moat and secular healthcare trends.

Eli Lilly is a top pick among Geoff Meacham's coverage, partially due to opportunities in Mounjaro (diabetes) and Zepbound (obesity). In his view, Lilly's positioning in the competitive landscape means that there is a wide moat for new entrants entering the space.

It's more than just weight loss: Meacham points out that additional opportunities in heart disease, sleep apnea, and liver disease are underappreciated. Combine this with a lack of growth stories in the healthcare sector, and LLY is set up for a strong 2024.

## Despite growing deficit, defense remains mission critical

There are lots of ways to take bets on an election year, but bipartisan support for defense spending seems to stand out among otherwise binary trades. TJ Thornton and Ronal Epstein sat down in February on the BofA Global Research Unlocked podcast to dissect opportunities in the defense rector. Even as US budget deficits are rising, putting other spending at risk, Epstein is confident in the growth of defense spending. He anticipates defense spending to rise from 2.8% of US GDP to 4% of GDP or more.

Specifically, Epstein finds a $15bn opportunity in fighter aircraft and plans for transformation in the US Army. Outside of the US, Benjamin Heelan estimates $63bn in defense spending from NATO allies, where defense budgets are already rising.

## AI adoption is fervent, but monetization is on the horizon

Alkesh Shah and Andrew Moss are checking in on their '24 Software Year Ahead call from January. From their year ahead, they expect a significant number of software companies to rapidly develop AI products, but do not see incremental revenue opportunities in the near term.

Their view was confirmed by several software company weak earnings announcements this month. In their view, meaningful revenue will come more slowly over a multiyear cycle. While past cycles for disruptive technologies have taken 15-30 years, they expect AI's path to monetization to last roughly 3-5 years.

Right now, software companies are coming off strong '23 performance (+58%) and combatting weak 4Q23 earnings. Despite these headwinds, Shah anticipates that these factors will translate to tailwinds for software names in 2H24.

# BofA Global Research house view

**Exhibit 27: BofA Global Research House View**

Near-term outlook of our BofA macro & market strategists across key regions and asset classes

| | Core view (3-6 months) | | Rationale |
|---|---|---|---|
| Investment Strategy | | Bearish | We own Bonds, Bullion, but believe the Q4 rental of Breadth tactically stretched (China is the only leveraged asset left to rally); more broadly while center of gravity for US yields in Q4 ~4%, and bond yields 5% to 4% has been bullish, ultimately we say fall in yields from 5% to 3% = hard landing = bearish, we say Q4 "lower yields = higher stocks" flips to "lower yields = lower stocks" in Q1. |
| Economics | | Neutral | In our baseline scenario, we expect a soft landing for the US economy, with positive but below-potential sequential growth for the next 6 quarters. These growth dynamics imply gradual disinflation and a slowdown in employment, which should allow the Fed to start cutting rates by 25bp per quarter in June, until it reaches a terminal rate of 3% in 2026. In 2023, global growth was stronger than expected, driven by the resilience of the US. We forecast a mild deceleration in global growth in 2024, and a gradual recovery in 2025. We expect heterogeneous growth dynamics across regions to persist, but we foresee more homogeneous inflation dynamics, gradually moving lower and allowing central banks to cut rates. Elections will take place in several countries next year. With polarization and populism on the rise, expect volatility driven by the political cycle |
| Rates & FX | | Neutral | Central banks including the Fed and the ECB are happy to signal that they are done hiking. Dovish turns by central banks combine with downside surprises on inflation to deliver a weaker dollar and lower rates. However, we are concerned that at this stage markets have pivoted too far towards a hard, rather than soft landing which creates scope for both rates and the dollar to retrace and consolidate before resuming their medium term trend which we still expect as weaker USD and steeper rate curves globally. |
| **Region** | **Ticker** | **Core view** | **Rationale** |
| Equities | MXWD | Neutral | |
| North America | MXNA | Bullish | Savita Subramanian targets 5400 on the S&P 500 by YE24. She is bullish not because she expects an aggressive Fed easing cycle, but because of what the Fed has accomplished. US corporates have adapted to non-zero hurdle rates, some inflation and a more rational market backdrop, and margins have remained surprisingly resilient. She has raised her 2024 S&P 500 EPS estimate to $250 (+12% YoY; vs. $235 previously). Companies delivered another strong beat in 4Q and our economists raised their 2024 GDP forecast to +2.7% YoY. Bull markets typically end with euphoria, but sentiment is still neutral. Election years have been positive for equities and bipartisan support on maintaining defense spending as well as near-shoring / US manufacturing and jobs are pro-cyclical. She is overweight Financials, Consumer Discretionary, Energy and Real Estate, and are underweight Tech, Consumer Staples, and Health Care. |
| Eurozone | MXEM | Bearish | Bearish: Sebastian Raedler expects a slowdown in global growth momentum driven by tightening credit conditions, fading US fiscal support and depleting order backlogs. This is set to translate into widening risk premia and downgrades to EPS expectations, with the resulting drag on equities only mildly offset by falling real bond yields (i.e. a lower discount rate for equities) on the back of dovish central banks. His macro projections imply around 15% downside for the Stoxx 600 to 420 by Q4, followed by a rebound to 440 early next year, as improving growth momentum and a continued fade in real rates lead to renewed multiple expansion. |
| UK | MXGB | Bearish | Bearish: Sebastian Raedler remains negative on UK relative to European equities, given his expectation for energy sector underperformance, with energy a key overweight in the UK index. On an absolute basis, he sees scope for the FTSE 100 to decline to a trough of 6,500 by Q4 (around 15% downside from current levels), before a recovery to 6,750 by early next year. |
| Japan | MXJP | Bullish | Masashi Akutsu has raised his year-end TOPIX and Nikkei forecasts to 2,950 and 43,500, respectively (vs. 2,850 and 41,000 previously). Akutsu believes that market selection should broaden during Apr-Jun quarter, thanks to the improving real wages growth and the manufacturing-cycle recovery; he recommends stocks with P/B upside if the BoJ removed negative interest rate policy (NIRP) -- names where ROE and recurring profit are higher than in FY15 but P/B is below 1.7x. |
| Fixed Income | GFIM | Neutral | |
| Government | W0G1 | Neutral | We have closed our long duration bias in both the US and the Euro Area. Markets are pricing in more aggressive cutting cycles than our economists expect – especially for 2024. Supply pressures remain high – in particular in 1Q24, and real money investors are already long duration, which suggests some concession may be necessary to allow for the supply to be absorbed. More medium-term, we continue to see room for term and inflation risk premia to rebuild along the US curve which suggests this cutting cycle may see structurally steeper curves than what we have seen in prior cycles. Finally, we expect to see much more persistent interest differentials between the US and the Euro Area as fundamental differences between the growth and inflation stories since the pandemic remain stark and much more persistent than markets are pricing. |
| Investment Grade | G0LC | Neutral | Credit spreads are trading near the tight end of our expected 100 – 120bps range on the ICE BofA US IG index over the next three months. As the outlook for fundamentals is strong, spreads are driven more by technicals. The IG credit market technicals have been very strong due to attractive yields. On top of that IG new issue supply is expected to slow in March from the very heavy pace in January and February. As a result, we look for spreads to remain near the tight end of the range in the near term. Longer term the expected moderation in US growth could lead to lower Treasury yields and weaken yield-sensitive demand, leading to moderately wider spreads. We prefer rotating out of US into underperforming European industrials on relative value. We prefer banks over industrials, BBBs over single-A industrials, and front-end over 30yr. |
| High Yield | HW00 | Neutral | Credit market stalls; judges prospects of the steepest rate hiking campaign being followed by the shallowest cutting path. Funding availability returns to more normalized levels post-Jan burst; cracks in the Mag 7 provide more reasons for caution. The barbell of elevated cash + low quality tilt has worked well ytd and should continue to do so. |
| EM debt | DXEM | Neutral | Sovereign: Neutral. EM sovereigns returns should come mostly from yield, given that spreads and UST yields are already near our year-end 2024 targets. The high duration of the sovereign bonds provides some protection in case of a hard landing scenario, as decline in UST yields could offset spread widening. Corp: Neutral positioning on tight spreads following the Nov/Dec '23 rally. Expect 2024E returns at 4.5% driven by carry, with possible mild spread expansion. |
| Securitized Products | G0LL | Neutral | Securitized products credit spreads have tightened significantly since October. We remain neutral. |
| Commodities | MLCXTR | Bullish | |
| Energy | MLCXENTR | Neutral | We project Brent and WTI to average $80/bbl and $75/bbl, respectively, in 2024. The global oil balance should remain in a mild surplus during 2024, as OPEC+ withholds more supply from the market to counteract slowing demand growth |
| Industrial Metals | MLCXIMTR | Neutral | Michael Widmer notes that metal markets have remained tight despite the global macro weakness, as green energy investment has paced ahead especially in China. Going forward, we expect that 1) continued investment in green technologies, 2) an acceleration of the global economy, 3) an end to destocking, 4) rate cuts/ a weaker USD and 5) ongoing supply issues push especially copper and aluminium higher in 2H |
| Precious Metals | MLCXPMTR | Neutral | As Michael Widmer notes, gold had held up around $2,000/oz through 2023, notwithstanding the recent monetary tightening. We had a $2400/oz price target if the Fed started to cut rates in 1Q. Easing is now on the cards for the second quarter, which keeps our bullish target alive. Beyond that, there is also ongoing support from central bank buying; gold purchases in China have also been strong. |
| Cash | G0B1 | Bullish | |

**Exhibit 28: BofA Year-end 2024 Forecasts vs. Consensus**

BofA year-end forecasts, consensus year-end 2024 forecasts for GDP, CPI, rates, and global markets

**FX and Rates**

| FX | Latest Value | BofA | Consensus | 3 year range | High/Low | Rates | Latest Value | BofA | Consensus | 3 year range | High/Low |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EUR-USD | 1.08 | 1.15 | 1.11 | | 1.22<br>0.98 | US 10-year | 4.30 | 4.25 | 3.83 | | 4.93<br>1.22 |
| USD-JPY | 151 | 142 | 139 | | 152<br>109 | Germany 10-year | 2.46 | 2.10 | 2.14 | | 2.84<br>-0.46 |
| EUR-JPY | 163 | 163 | 155.5 | | 162<br>128 | Japan 10-year | 0.69 | 1.05 | 0.92 | | 0.95<br>0.02 |
| GBP-USD | 1.27 | 1.37 | 1.28 | | 1.42<br>1.12 | UK 10-year | 4.20 | 4.00 | 3.59 | | 4.51<br>0.57 |
| USD-CNY | 7.20 | 6.90 | 7.06 | | 7.32<br>6.31 | | | | | | |

**Equities and Commodities**

| Equities | Latest Value | BofA | Consensus | 3 year range | High/Low | Commodities | Latest Value | BofA | Consensus | 3 year range | High/Low |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S&P 500 | 5,078 | 5,400 | 4,897 | | 5096<br>3586 | WTI Crude - $/bbl | 79 | 75 | 80 | | 115<br>59 |
| 2024 EPS | 223 | 250 | 241 | | 246<br>180 | Brent Crude - $/bbl | 84 | 80 | 84 | | 123<br>64 |
| Stoxx 600 | 496 | 420 | 554 | | 495<br>388 | Gold $/oz | 2,030 | 2,000 | 2,100 | | 2063<br>1634 |
| FTSE 100 | 7,683 | 6,500 | 8,965 | | 7876<br>6714 | | | | | | |
| Nikkei 225 | 39,240 | 43,500 | 40,490 | | 39166<br>25937 | | | | | | |

**GDP and CPI Inflation**

| GDP growth | Latest Value | BofA | Consensus | High/Low | CPI inflation | Latest Value | BofA | Consensus | High/Low |
|---|---|---|---|---|---|---|---|---|---|
| US | 3.2 | 2.7 | 2.1 | 7.0<br>-2.0 | US | 3.1 | 3.2 | 2.7 | 9.1<br>2.6 |
| Euro area | 0.1 | 0.4 | 0.5 | 14.8<br>-0.2 | Euro area | 2.6 | 2.3 | 2.3 | 10.6<br>1.3 |
| Japan | 1.0 | 0.3 | 0.7 | 8.0<br>-0.6 | Japan | 2.6 | 2.5 | 2.2 | 4.4<br>-1.2 |
| UK | -0.3 | 0.3 | 0.4 | 7.3<br>-1.0 | UK | 4.0 | 2.4 | 2.6 | 11.1<br>0.7 |
| China | 5.2 | 4.8 | 4.6 | 18.7<br>0.4 | China | -0.8 | 0.8 | 0.8 | 2.8<br>-0.8 |

**Source:** BofA Global Research, Bloomberg, Datastream; FX, rates, equities and commodities data as of 2/29/2024; GDP data of 12/31/2023. CPI data for CPI through 2/29/2024; Equity consensus price and EPS forecasts as of 2/29/2024.

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# BofA US equity sector views

**Exhibit 29: BofA US Equity Strategy sector views**
Bull & bear case by sector

| Sector | Weight in S&P 500 | BofA View | Bull case | Bear case |
|---|---|---|---|---|
| Energy | 3.8% | O/W | Commodity cycles end w/ oversupply; not likely if CEO pay is on ESG /div targets, not production.<br>Avg. $80/bbl Brent in 2023 (house view); attractive FCF even at $70<br>Inflation-protected yield; peak USD?<br>War pushes energy security ahead of decarbonization<br>Re-rating on capital and supply discipline, IRA beneficiary | Lowest Quality sector based on S&P rankingsHigh GHG direct emissions profile + secular headwinds from renewables, green capexCeasefires, peace breaks out |
| Consumer Discretionary | 10.4% | O/W | Housing (leading indicator) benefits from structural shortages<br>long-only fund and hedge fund positioning near historical lows<br>Real wage growth now positive, #3 in Quant model, Recovery regime beneficiary<br>Secular shift into e-commerce / EVs (AMZN + TSLA: ~50% of the sector)<br>Consumer still resilient - 85% of US mortgages are fixed<br>Fed is done hiking | Risk if job losses extend beyond Silicon Valley/Wall Street<br>Long duration (AMZN + TSLA represent 50% of the sector), AMZN = COVID demand pull forward<br>Expensive (but in line ex. TSLA/AMZN)<br>Continued Fed hiking<br>Temu |
| Financials | 13.0% | O/W | Contagion risk largely mitigated - Regional Banks = 2.5% of the sector<br>High quality and low leverage<br>Mispriced risk: Lower EPS vol than S&P 500 but high price beta<br>Higher interest rates vs. prior cycle<br>100% hit rate in Recovery regimes; historically inexpensive | Rising deposit costs & increased regulatory risk after bank fallouts<br>Commercial Real Estate (23% of total loans) |
| Real Estate | 2.3% | O/W | Dividend yield (~50% of stocks yielding higher than the 10yr)<br>Inexpensive and unloved by long-only funds and hedge funds<br>Real asset, but also a bond proxy | Commercial real estate risk (but only 14% of sector)<br>Biggest exposure to refinancing risk & most hurt by rising real rates |
| Materials | 2.3% | M/W | Underinvestment in manufacturing, single family, mining over last decade drives higher returns<br>Continued capex cycle<br>Attractive FCF/EV<br>Potential recovery in goods spending (exposed to housing/autos/etc.) | Most exposed sector to China (along with Tech)<br>Overweight by hedge funds, long-only positioning is near a 7-yr high<br>Ranks last in Quant model<br>Commodity chemicals may be near a bottom but recovery could be slow |
| Industrials | 8.8% | M/W | Capex, automation, re-shoring beneficiary<br>Half cyclical, half Quality<br>Fiscal stimulus (bipartisan infrastructure bill = 11% of nonresidential construction spend) | Industrials is crowded (only cyclical sector overweight by both long-only and hedge funds)<br>Rising earnings volatility amid de-globalization / loss of diversification |
| Communication Services | 9.8% | M/W | #2 in our tactical quant model<br>Big buybacks and cash returns mean duration risk shortening<br>Valuations reasonable | Positioning risk rising after strong YTD performance<br>Headline risk in 2024 regulatory, anti-monopolistic<br>Too big to grow<br>Corp ad spend slowdown potential |
| Utilities | 2.2% | M/W | Stable fundamentals / defensive hedge / Quality<br>IRA / energy transition beneficiary<br>Disinflation and lower rates | Positioning risk: HFs are overweight, long only positioning near decade highs<br>Dividend yield vs. 10-yr yield below post-GFC avg.<br>Underperforms in Recovery regimes with a 100% hit rate |
| Technology | 29.8% | U/W | Secular themes (AI, cloud, telecommuting, robotics, etc.) and onshoring automation & capex<br>Long-only positioning risk has largely subsided<br>Clean balance sheets, strong margins, and improving earnings trends<br>AI arms race | Peak globalization (most multinational sector)<br>COVID demand pull-forward was just as extreme as into Y2K<br>Regulatory / anti-monopolistic overhang<br>Expensive, Mag 7 crowding risk<br>Destocking risk evident for semis, tech hardware & autos |
| Health Care | 12.6% | U/W | Defensive sector offering secular growth<br>Baby Boomer spend beneficiary<br>Select stocks can benefit from AI | Crowded (overweight by both long-only funds and hedge funds) after a year of preparing for a recession<br>Government sales exposure ahead of fiscal cuts, overhang from drug pricing pressure<br>Labor tightness not likely to be automated or AI'd away<br>Floating rate risk .. Higher refinancing dollar risks than other sectors<br>Election year - drug price regulations likely to hit headlines |
| Consumer Staples | 6.0% | U/W | No matter what, we still have to eat - defensive hedge<br>Benefits from consumers trading down<br>Weakening USD | Elevated positioning: funds have been preparing for recession but soft landing more likely<br>Typically underperforms in Recovery regime<br>Ranks poorly in Quant model; lower quality vs. history<br>Citing deflation trends<br>GLP-1 = thematic overhang |

**Note:** O/W = overweight, M/W = market weight, U/W = underweight. Weights in S&P 500 as of 3/5/2024 and may not add to 100% due to rounding. **Source:** BofA US Equity & Quant Strategy

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# Global cross-asset returns

## February 2024 Review

- Global equity markets rose 3.8% on average in February, lifted by a large reversal in China. This month, the Hang Seng (+6.5%) and the NASDAQ (+6.2%) were the best performers. The FTSE was down -0.3% this month.
- SMID caps were the best performing size factor in February (+5.6%), outperforming large caps by a slim margin (0.2%). Growth outperformed value across all size factors by 3.6% on average.
- All sectors were positive on the month. Strong earnings supported growth sectors like discretionary (+8.7%) and technology (+6.3%). Cyclicals like industrials (+7.2%) and materials (+6.5%) also rose on an improving economic outlook.
- Credit outperformed government bonds in February. Long duration US Treasuries continued to fall, losing >2% for the second month in a row. Preferred performed best, gaining almost 1.3%.
- Oil started continues its rally, up 3% in February. Gold returns were subdued in February (+0.3%) before beginning to rally in March.

**Exhibit 30: Equity Indexes**

Total return (%)

| | As of 29 February 2024 | | | | | | |
|---|---|---|---|---|---|---|---|
| Asset class | 1mo | 3mo | 12mo | YTD | 3yr[2] | 5yr[2] | 10yr[2] |
| Equity Indices (%, US dollar terms) | | | | | | | |
| S&P 500 | 5.3 | 12.0 | 30.5 | 7.1 | 11.0 | 14.6 | 12.7 |
| Dow Jones Industrial Avg. | 2.5 | 9.0 | 22.0 | 3.8 | 9.5 | 10.8 | 11.6 |
| NASDAQ Comp | 6.2 | 13.3 | 41.6 | 7.3 | 6.6 | 17.2 | 15.2 |
| MSCI All Country World | 4.3 | 10.0 | 23.8 | 5.0 | 6.6 | 10.9 | 8.9 |
| FTSE 100 | -0.3 | 3.0 | 5.1 | -1.9 | 5.5 | 4.3 | 2.2 |
| DJ Euro Stoxx 50 | 4.6 | 10.7 | 20.2 | 5.5 | 8.2 | 9.5 | 4.5 |
| MSCI EAFE | 1.8 | 7.9 | 15.0 | 2.4 | 4.5 | 7.2 | 4.9 |
| TOPIX | 2.4 | 11.5 | 24.6 | 6.2 | 2.5 | 6.9 | 6.5 |
| Hang Seng | 6.5 | -3.2 | -13.1 | -3.4 | -15.1 | -7.5 | 0.2 |
| MSCI Emerging Markets | 4.8 | 3.9 | 9.2 | -0.1 | -6.5 | 2.3 | 3.4 |
| Size & Style (%, US dollar terms) | | | | | | | |
| Russell 1000 | 5.4 | 12.1 | 29.8 | 6.9 | 9.8 | 14.3 | 12.4 |
| Russell 1000 Growth | 6.8 | 14.3 | 45.9 | 9.5 | 11.5 | 18.6 | 15.7 |
| Russell 1000 Value | 3.7 | 9.5 | 14.0 | 3.8 | 7.6 | 9.3 | 8.7 |
| Russell Midcap | 5.6 | 12.1 | 15.5 | 4.1 | 4.7 | 10.2 | 9.5 |
| Russell Midcap Growth | 7.5 | 15.0 | 25.0 | 6.9 | 2.2 | 11.4 | 10.9 |
| Russell Midcap Value | 4.8 | 10.9 | 10.9 | 2.9 | 6.0 | 8.8 | 8.2 |
| Russell 2000 | 5.7 | 14.0 | 10.0 | 1.5 | -2.0 | 6.7 | 7.1 |
| Russell 2000 Growth | 8.1 | 17.2 | 14.2 | 4.7 | -5.6 | 6.2 | 7.3 |
| Russell 2000 Value | 3.3 | 10.8 | 5.6 | -1.4 | 1.4 | 6.5 | 6.5 |
| S&P 500 Sectors (%, US dollar terms) | | | | | | | |
| Consumer Discretionary | 8.7 | 11.3 | 32.6 | 4.9 | 4.8 | 12.2 | 12.2 |
| Consumer Staples | 2.3 | 6.7 | 8.0 | 3.9 | 9.3 | 10.1 | 9.1 |
| Energy | 3.2 | 2.8 | 6.2 | 2.8 | 25.8 | 10.7 | 3.9 |
| Financials | 4.2 | 13.1 | 15.3 | 7.3 | 8.8 | 11.0 | 10.9 |
| Health Care | 3.2 | 10.9 | 15.9 | 6.3 | 10.1 | 11.3 | 11.3 |
| Industrials | 7.2 | 13.7 | 22.1 | 6.3 | 11.1 | 11.7 | 10.8 |
| Information Technology | 6.3 | 14.7 | 58.8 | 10.5 | 17.7 | 25.9 | 21.8 |
| Materials | 6.5 | 7.0 | 9.2 | 2.3 | 7.3 | 12.2 | 8.6 |
| Real Estate | 2.6 | 6.2 | 6.2 | -2.3 | 5.1 | 6.0 | 7.9 |
| Communication Services | 5.7 | 16.3 | 58.4 | 11.0 | 5.6 | 13.1 | 9.4 |
| Utilities | 1.1 | 0.0 | -1.2 | -1.9 | 4.6 | 5.1 | 8.0 |

**Source:** BofA Global Research, S&P, MSCI, Bloomberg. Notes: * Performance is gross of foreign dividend withholding taxes, [2]3yr, 5yr, and 10yr returns are annualized.

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**Exhibit 31: Bond/currency/commodity/hedge fund indexes**

Total return (%)

| | As of 29 February 2024 | | | | | | |
|---|---|---|---|---|---|---|---|
| Asset class | 1mo | 3mo | 12mo | YTD | 3yr[2] | 5yr[2] | 10yr[2] |
| BofA Global Research Bond Indices (%, US dollar terms) | | | | | | | |
| 2-Year Treasury | -0.5 | 1.0 | 3.7 | -0.1 | -0.5 | 0.9 | 0.8 |
| 5-Year Treasury | -1.4 | 1.1 | 3.0 | -1.2 | -3.0 | 0.4 | 0.8 |
| 10-Year Treasury | -2.1 | 1.7 | 0.7 | -2.2 | -5.3 | -0.5 | 0.7 |
| 30-Year Treasury | -2.2 | 3.5 | -4.5 | -4.4 | -11.1 | -3.0 | 0.6 |
| US Broad Market Index | -1.4 | 2.2 | 3.4 | -1.5 | -3.1 | 0.6 | 1.5 |
| TIPS | -1.1 | 1.8 | 2.3 | -0.7 | -0.9 | 2.7 | 2.1 |
| Municipals* | 0.0 | 2.2 | 5.7 | -0.2 | -0.2 | 2.0 | 2.7 |
| US Corporate Bonds | -1.4 | 2.7 | 6.1 | -1.3 | -2.5 | 1.9 | 2.6 |
| US High Yield Bonds | 0.3 | 4.0 | 11.0 | 0.3 | 1.8 | 4.0 | 4.3 |
| Emerging Mkt Corp Bonds | 0.1 | 3.5 | 7.0 | 0.2 | -3.1 | 1.1 | 2.4 |
| Emerging Mkt Sov Bonds | 0.4 | 4.0 | 9.3 | -1.0 | -3.8 | -0.1 | 1.9 |
| Preferreds | 1.3 | 7.6 | 4.1 | 5.0 | -1.0 | 3.1 | 4.8 |
| Foreign exchange | | | | | | | |
| DXY Index | 0.9 | 0.6 | -0.7 | 2.8 | 4.6 | 1.5 | 2.7 |
| GBP/USD | -0.5 | 0.0 | 5.0 | -0.8 | -3.2 | -0.9 | -2.8 |
| EUR/USD | -0.1 | -0.8 | 2.2 | -2.1 | -3.6 | -1.0 | -2.4 |
| USD/JPY | 2.1 | 1.2 | 10.1 | 6.3 | 12.0 | 6.0 | 4.0 |
| Commodities** (%, US dollar terms) | | | | | | | |
| CRB Index | 1.0 | 0.5 | 1.9 | 4.3 | 13.3 | 8.7 | -0.9 |
| Gold | 0.3 | 0.8 | 11.9 | -0.8 | 6.0 | 9.6 | 4.5 |
| WTI Crude Oil | 3.2 | 3.0 | 1.6 | 9.2 | 8.9 | 7.0 | - |
| Brent Crude Oil | 2.3 | 1.0 | -0.3 | 8.5 | 9.5 | 5.1 | -2.6 |
| Alternative Investments† (%, US dollar terms) | | | | | | | |
| Hedge Fund - CS Tremont[1] | 1.4 | 3.6 | 5.4 | 1.4 | 5.6 | 6.0 | 4.0 |
| Hedge Fund - Bloomberg[1] | 0.2 | 6.0 | 4.5 | 0.2 | 3.0 | 5.1 | 3.9 |

**Source:** S&P, MSCI, Bloomberg, FactSet, BofA Bond Indices (US Treasury Current 10yr, Current 2yr, Inflation-Linked; Muni Master, US Corp Master, US HY Master II, EM Corp Plus Index; EM External Debt Sovereign Index; US Preferred Stock Index).

Notes: * Not tax adjusted. **BoE calculated effective FX indices. [1]Data lagged by one month; [2]3yr, 5yr, and 10yr returns are annualized; CS AUM-weighted, HFRI equal-weighted; †AI data not comparable to other asset classes because of reporting delays, lack of standardized reporting, and survivorship and self-selection biases. Crude oil prices are spot USD.

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# Appendix

## Tax disclosure

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.

**Exhibit 32: ETFs mentioned**

Ticker, name, price, rating

| Ticker | Name | Price | Rating |
|---|---|---|---|
| TLT | iShares 20+ Year Treasury Bond ETF | 96 | 1-NV MORE ATTRACTIVE |
| HYMB | SPDR Nuveen Bloomberg High Yield Municipal Bond ETF | 26 | 1-FV MORE ATTRACTIVE |
| HYD | VanEck High Yield Muni ETF | 52 | 1-FV MORE ATTRACTIVE |
| FMHI | First Trust Municipal High Income ETF | 48 | 1-FV MORE ATTRACTIVE |
| PFFD | Global X US Preferred ETF | 20 | 1-FV MORE ATTRACTIVE |
| PFXF | VanEck Preferred Securities ex Financials ETF | 18 | 1-FV MORE ATTRACTIVE |
| DIVB | iShares Core Dividend ETF | 43 | 1-FV MORE ATTRACTIVE |
| PKW | Invesco BuyBack Achievers ETF | 103 | 1-FV MORE ATTRACTIVE |
| SPYD | SPDR Portfolio S&P 500 High Dividend ETF | 40 | 1-FV MORE ATTRACTIVE |
| RDVY | First Trust Rising Dividend Achievers ETF | 54 | 1-FV MORE ATTRACTIVE |
| VYM | Vanguard High Dividend Yield ETF | 117 | 1-FV MORE ATTRACTIVE |
| SCHD | Schwab US Dividend Equity ETF | 78 | 1-FV MORE ATTRACTIVE |
| FDL | First Trust Exchange-Traded Fund-First Trust Morningstar Dividend Leaders Index | 37 | 1-FV MORE ATTRACTIVE |
| MLPX | Global X MLP & Energy Infrastructure ETF | 47 | 1-FV MORE ATTRACTIVE |
| MLPA | Global X MLP ETF | 47 | 1-FV MORE ATTRACTIVE |
| IYK | iShares U.S. Consumer Staples ETF | 66 | 1-FV MORE ATTRACTIVE |
| XLU | Utilities Select Sector SPDR Fund | 64 | 1-NV MORE ATTRACTIVE |
| EIDO | iShares MSCI Indonesia ETF | 23 | 1-FV MORE ATTRACTIVE |
| ILF | iShares Latin America 40 ETF | 28 | 2-FV ATTRACTIVE |
| PICK | iShares MSCI Global Metals & Mining Producers ETF | 40 | 2-FV ATTRACTIVE |
| IDV | iShares International Select Dividend ETF | 28 | 2-FV ATTRACTIVE |
| ESGE | iShares ESG Aware MSCI EM ETF | 32 | 3-NV LESS ATTRACTIVE |
| IRBO | iShares Robotics and Artificial Intelligence Multisector ETF | 35 | 3-NV LESS ATTRACTIVE |
| MFM | MFS Municipal Income Trust | 5 | F-1 BUY |
| NZF | Nuveen Municipal Credit Income Fund | 12 | F-1 BUY |
| NMZ | Nuveen Municipal High Income Opportunity Fund | 11 | F-1 BUY |
| AGD | abrdn Global Dynamic Dividend Fund | 9 | F-1 BUY |
| ETG | Eaton Vance Tax-Advantaged Global Dividend Income Fund | 18 | F-1 BUY |
| GDV | Gabelli Dividend & Income Trust/The | 22 | F-1 BUY |
| HTD | John Hancock Tax-Advantaged Dividend Income Fund | 19 | F-1 BUY |
| XLC | Communication Services Select Sector SPDR Fund | 80 | 1-UF MORE ATTRACTIVE |
| XLE | Energy Select Sector SPDR Fund | 88 | 1-FV MORE ATTRACTIVE |
| XLRE | Real Estate Select Sector SPDR Fund | 40 | 1-NV MORE ATTRACTIVE |
| VCR | Vanguard Consumer Discretionary ETF | 309 | 1-UF MORE ATTRACTIVE |
| XLF | Financial Select Sector SPDR Fund | 40 | 1-FV MORE ATTRACTIVE |
| XLI | Industrial Select Sector SPDR Fund | 121 | 1-NV MORE ATTRACTIVE |
| FXZ | First Trust Materials AlphaDEX Fund | 68 | 1-NV MORE ATTRACTIVE |
| XLV | Health Care Select Sector SPDR Fund | 146 | 1-FV MORE ATTRACTIVE |
| XLK | Technology Select Sector SPDR Fund | 207 | 1-UF MORE ATTRACTIVE |
| VYMI | Vanguard International High Dividend Yield ETF | 68 | 1-FV MORE ATTRACTIVE |
| VTV | Vanguard Value ETF | 158 | 1-FV MORE ATTRACTIVE |
| COWZ | Pacer US Cash Cows 100 ETF | 55 | 1-FV MORE ATTRACTIVE |
| SCHG | Schwab U.S. Large-Cap Growth ETF | 91 | 1-FV MORE ATTRACTIVE |
| CALF | Pacer US Small Cap Cash Cows 100 ETF | 47 | 1-FV MORE ATTRACTIVE |
| SCHM | Schwab U.S. Mid-Cap ETF | 79 | 1-FV MORE ATTRACTIVE |
| FNDX | Schwab Fundamental U.S. Large Company Index ETF | 65 | 1-NV MORE ATTRACTIVE |
| IVV | iShares Core S&P 500 ETF | 513 | 1-NV MORE ATTRACTIVE |
| ICLN | iShares Global Clean Energy ETF | 14 | 1-NV MORE ATTRACTIVE |
| VOTE | TCW Transform 500 ETF | 60 | 1-NV MORE ATTRACTIVE |
| AIQ | Global X Artificial Intelligence & Technology ETF | 34 | 1-NV MORE ATTRACTIVE |
| KSA | iShares MSCI Saudi Arabia ETF | 44 | 1-FV MORE ATTRACTIVE |
| EWW | iShares MSCI Mexico ETF | 66 | 1-FV MORE ATTRACTIVE |
| KBA | KraneShares Bosera MSCI China A 50 Connect Index ETF | 22 | 1-UF MORE ATTRACTIVE |
| FLCA | Franklin FTSE Canada ETF | 34 | 1-FV MORE ATTRACTIVE |
| FEZ | SPDR EURO STOXX 50 ETF | 51 | 1-NV MORE ATTRACTIVE |

**Exhibit 32: ETFs mentioned**

Ticker, name, price, rating

| Ticker | Name | Price | Rating |
|---|---|---|---|
| HEFA | iShares Currency Hedged MSCI EAFE ETF | 34 | 1-NV MORE ATTRACTIVE |
| VEU | Vanguard FTSE All-World ex-US ETF | 58 | 1-NV MORE ATTRACTIVE |
| EMXC | iShares MSCI Emerging Markets ex China ETF | 57 | 1-FV MORE ATTRACTIVE |
| DXJ | WisdomTree Japan Hedged Equity Fund | 102 | 1-FV MORE ATTRACTIVE |
| EPI | WisdomTree India Earnings Fund | 44 | 1-FV MORE ATTRACTIVE |
| IYZ | iShares U.S. Telecommunications ETF | 22 | 3-UF LESS ATTRACTIVE |
| PXI | Invesco Exchange-Traded Fund Trust Invesco Dorsey Wright Energy Momentum ETF | 46 | 3-FV LESS ATTRACTIVE |
| RSPU | Invesco S&P 500 Equal Weight Utilities ETF | 55 | 3-NV LESS ATTRACTIVE |
| SCHH | Schwab U.S. REIT ETF | 20 | 3-NV LESS ATTRACTIVE |
| RSPS | Invesco S&P 500 Equal Weight Consumer Staples ETF | 32 | 3-FV LESS ATTRACTIVE |
| IYC | iShares U.S. Consumer Discretionary ETF | 80 | 3-UF LESS ATTRACTIVE |
| FXO | First Trust Financial AlphaDEX Fund | 45 | 2-FV ATTRACTIVE |
| FXR | First Trust Industrials/Producer Durables AlphaDEX Fund | 70 | 3-NV LESS ATTRACTIVE |
| IYM | iShares U.S. Basic Materials ETF | 142 | 2-NV ATTRACTIVE |
| PTH | Invesco Exchange-Traded Fund Trust Invesco Dorsey Wright Healthcare Momentum ETF | 45 | 3-FV LESS ATTRACTIVE |
| QTEC | First Trust NASDAQ-100 Technology Index Fund | 189 | 3-UF LESS ATTRACTIVE |
| PID | Invesco International Dividend Achievers ETF | 19 | 3-FV LESS ATTRACTIVE |
| IPKW | Invesco International BuyBack Achievers ETF | 39 | 2-FV ATTRACTIVE |
| AIVL | WisdomTree US AI Enhanced Valu | 99 | 3-FV LESS ATTRACTIVE |
| RPV | Invesco Exchange-Traded Fund Trust - Invesco S&P 500 Pure Value ETF | 84 | 3-FV LESS ATTRACTIVE |
| QLC | FlexShares US Quality Large Cap Index Fund | 57 | 3-FV LESS ATTRACTIVE |
| IVW | iShares S&P 500 Growth ETF | 83 | 3-FV LESS ATTRACTIVE |
| FYX | First Trust Small Cap Core AlphaDEX Fund | 90 | 3-FV LESS ATTRACTIVE |
| IJH | iShares Core S&P Mid-Cap ETF | 59 | 2-FV ATTRACTIVE |
| LRGF | iShares U.S. Equity Factor ETF | 52 | 3-NV LESS ATTRACTIVE |
| OEF | iShares S&P 100 ETF | 242 | 3-NV LESS ATTRACTIVE |
| PBW | Invesco WilderHill Clean Energy ETF | 24 | 3-NV LESS ATTRACTIVE |
| DTEC | ALPS Disruptive Technologies ETF | 43 | 3-NV LESS ATTRACTIVE |
| VNM | VanEck Vietnam ETF | 13 | 3-FV LESS ATTRACTIVE |
| ECH | iShares MSCI Chile ETF | 26 | 3-FV LESS ATTRACTIVE |
| EWH | iShares MSCI Hong Kong ETF | 16 | 3-UF LESS ATTRACTIVE |
| EWC | iShares MSCI Canada ETF | 38 | 2-FV ATTRACTIVE |
| FDD | First Trust STOXX European Select Dividend Index Fund | 11 | 3-NV LESS ATTRACTIVE |
| RODM | Hartford Multifactor Developed Markets ex-US ETF | 28 | 3-NV LESS ATTRACTIVE |
| ACWX | iShares MSCI ACWI ex U.S. ETF | 53 | 3-NV LESS ATTRACTIVE |
| DBEM | Xtrackers MSCI Emerging Markets Hedged Equity ETF | 24 | 3-FV LESS ATTRACTIVE |
| JPXN | iShares JPX-Nikkei 400 ETF /US | 73 | 3-FV LESS ATTRACTIVE |
| SMIN | iShares MSCI India Small-Cap ETF | 71 | 2-FV ATTRACTIVE |
| URA | Global X Uranium ETF | 28 | 1-FV MORE ATTRACTIVE |
| NLR | VanEck Uranium + Nuclear Energy ETF | 74 | 1-FV MORE ATTRACTIVE |
| XME | SPDR S&P Metals & Mining ETF | 58 | 2-FV ATTRACTIVE |

**Source:** BofA Global Research, Bloomberg

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**Exhibit 33: Stocks mentioned**

Ticker, name, rating, price

| Ticker | Name | Price | Rating | |
|---|---|---|---|---|
| LLY | Eli Lilly & Co | 729 | B-1-7 | BUY |

**Source:** BofA Global Research, Bloomberg

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## Price objective basis & risk

**Eli Lilly and Company (LLY)**

Our $1000 price objective is based on a probability-adjusted net present value (NPV) analysis of franchise verticals including Endocrinology ($691/share), Oncology ($135/share), Cardiovascular ($4/share), Neuroscience ($14/share), Immunology ($46/share), other pharmaceutical products and early pipeline assets ($128/share), as well as approximately -$17/share in net cash. We use a WACC ranging from 5% for approved products to 8% for pipeline products, depending on the stage of development. We apply terminal values ranging from -12% (cardiology) to 1% (endocrinology) based on projected sales decline following loss of exclusivity within each business vertical.

Risks to our price objective are 1) better-than-expected launches of competing products, 2) emerging clinical data for pipeline assets that does not confirm prior observations, 3) failure to effectively commercialize approved products, 4) potential drug pricing system restructuring in the US.

## Analyst Certification

We, Jared Woodard and Geoff Meacham, hereby certify that the views expressed in this research report accurately reflect our personal views about the subject equity securities and issuers. We also certify that no part of our compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this research report.

## Special Disclosures

BofA Securities is currently acting as a Financial Advisor to Canadian Solar Inc in connection with its subsidiary Recurrent Energy LLC's secured preferred equity investment commitment, convertible into common equity, for Recurrent Energy BV from BlackRock Inc through a fund managed by its Climate Infrastructure business, which was announced on January 23, 2024.

**US - Biopharmaceuticals Coverage Cluster**

| Investment rating | Company | BofA Ticker | Bloomberg symbol | Analyst |
|---|---|---|---|---|
| **BUY** | | | | |
| | 89bio, Inc | ETNB | ETNB US | Geoff Meacham |
| | Acumen Pharma | ABOS | ABOS US | Geoff Meacham |
| | Agios Pharmaceuticals | AGIO | AGIO US | Greg Harrison, CFA |
| | BioMarin | BMRN | BMRN US | Geoff Meacham |
| | BioXcel Therapeutics | BTAI | BTAI US | Greg Harrison, CFA |
| | BridgeBio Pharma | BBIO | BBIO US | Greg Harrison, CFA |
| | Caribou | CRBU | CRBU US | Geoff Meacham |
| | CRISPR Therapeutics | CRSP | CRSP US | Geoff Meacham |
| | Eli Lilly and Company | LLY | LLY US | Geoff Meacham |
| | Gilead Sciences Inc. | GILD | GILD US | Geoff Meacham |
| | HUTCHMED | HCM | HCM US | Alec W. Stranahan |
| | Immatics | IMTX | IMTX US | Alec W. Stranahan |
| | Insmed Incorporated | INSM | INSM US | Jason Zemansky |
| | Intellia Therapeutics | NTLA | NTLA US | Greg Harrison, CFA |
| | Janux Therapeutics | JANX | JANX US | Alec W. Stranahan |
| | Keros | KROS | KROS US | Greg Harrison, CFA |
| | Kiniksa Pharmaceuticals, Ltd. | KNSA | KNSA US | Geoff Meacham |
| | Krystal Biotech | KRYS | KRYS US | Alec W. Stranahan |
| | Kura Oncology | KURA | KURA US | Jason Zemansky |
| | Liquidia Corporation | LQDA | LQDA US | Greg Harrison, CFA |
| | Lyell Immunopharma | LYEL | LYEL US | Geoff Meacham |
| | MeiraGTx | MGTX | MGTX US | Alec W. Stranahan |
| | Merck & Co. | MRK | MRK US | Geoff Meacham |
| | Mineralys Therapeutics | MLYS | MLYS US | Greg Harrison, CFA |
| | Neumora Therapeutics | NMRA | NMRA US | Geoff Meacham |
| | Rani Therapeutics | RANI | RANI US | Geoff Meacham |
| | Regenxbio, Inc. | RGNX | RGNX US | Alec W. Stranahan |
| | Revolution Medicines | RVMD | RVMD US | Alec W. Stranahan |
| | Rocket Pharmaceuticals, Inc. | RCKT | RCKT US | Greg Harrison, CFA |
| | Royalty Pharma | RPRX | RPRX US | Geoff Meacham |
| | Sana Biotechnology | SANA | SANA US | Geoff Meacham |
| | SpringWorks | SWTX | SWTX US | Alec W. Stranahan |
| | Syndax Pharmaceuticals | SNDX | SNDX US | Jason Zemansky |
| | Travere Therapeutics Inc | TVTX | TVTX US | Greg Harrison, CFA |
| | Turnstone Biologics | TSBX | TSBX US | Geoff Meacham |
| | Vertex Pharmaceuticals Inc. | VRTX | VRTX US | Geoff Meacham |
| | Werewolf Therapeutics | HOWL | HOWL US | Jason Zemansky |
| | Xencor | XNCR | XNCR US | Alec W. Stranahan |
| **NEUTRAL** | | | | |
| | AbbVie | ABBV | ABBV US | Geoff Meacham |
| | Alector, Inc | ALEC | ALEC US | Greg Harrison, CFA |
| | Amgen Inc. | AMGN | AMGN US | Geoff Meacham |
| | Amylyx Pharmaceuticals | AMLX | AMLX US | Geoff Meacham |
| | Arcus Biosciences | RCUS | RCUS US | Jason Zemansky |
| | Beam Therapeutics | BEAM | BEAM US | Greg Harrison, CFA |
| | Biogen Inc. | BIIB | BIIB US | Geoff Meacham |
| | Bristol-Myers Squibb | BMY | BMY US | Geoff Meacham |
| | Cytokinetics, Incorporated | CYTK | CYTK US | Jason Zemansky |
| | Editas Medicine | EDIT | EDIT US | Greg Harrison, CFA |
| | Erasca | ERAS | ERAS US | Alec W. Stranahan |
| | Esperion | ESPR | ESPR US | Jason Zemansky |
| | Exscientia | EXAI | EXAI US | Alec W. Stranahan |
| | IGM Biosciences | IGMS | IGMS US | Greg Harrison, CFA |
| | Johnson & Johnson | JNJ | JNJ US | Geoff Meacham |
| | Kymera Therapeutics | KYMR | KYMR US | Geoff Meacham |
| | Moderna | MRNA | MRNA US | Geoff Meacham |
| | Pfizer | PFE | PFE US | Geoff Meacham |
| | Recursion Pharmaceuticals, Inc. | RXRX | RXRX US | Alec W. Stranahan |
| | Tyra Biosciences | TYRA | TYRA US | Greg Harrison, CFA |
| | Vir | VIR | VIR US | Alec W. Stranahan |
| | Y-mAbs Therapeutics, Inc | YMAB | YMAB US | Alec W. Stranahan |
| **UNDERPERFORM** | | | | |
| | AlloVir, Inc. | ALVR | ALVR US | Jason Zemansky |

**US - Biopharmaceuticals Coverage Cluster**

| Investment rating | Company | BofA Ticker | Bloomberg symbol | Analyst |
|---|---|---|---|---|
| | CureVac | CVAC | CVAC US | Geoff Meacham |
| | Day One Biopharmaceuticals | DAWN | DAWN US | Alec W. Stranahan |
| | Novavax | NVAX | NVAX US | Alec W. Stranahan |
| | Regeneron Pharmaceuticals Inc. | REGN | REGN US | Geoff Meacham |
| | Reneo Pharmaceuticals | RPHM | RPHM US | Jason Zemansky |
| | TG Therapeutics | TGTX | TGTX US | Alec W. Stranahan |
| | United Therapeutics Corporation | UTHR | UTHR US | Greg Harrison, CFA |

# Disclosures

## Important Disclosures

**Equity Investment Rating Distribution: Health Care Group (as of 31 Dec 2023)**

| Coverage Universe | Count | Percent | Inv. Banking Relationships R1 | Count | Percent |
|---|---|---|---|---|---|
| Buy | 234 | 60.94% | Buy | 115 | 49.15% |
| Hold | 80 | 20.83% | Hold | 36 | 45.00% |
| Sell | 70 | 18.23% | Sell | 29 | 41.43% |

**Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)**

| Coverage Universe | Count | Percent | Inv. Banking Relationships R1 | Count | Percent |
|---|---|---|---|---|---|
| Buy | 1895 | 53.62% | Buy | 1083 | 57.15% |
| Hold | 832 | 23.54% | Hold | 454 | 54.57% |
| Sell | 807 | 22.84% | Sell | 383 | 47.46% |

R1 Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

**Closed End Funds Investment Rating Distribution: Global Group (as of 31 Dec 2023)**

| Coverage Universe | Count | Percent | Inv. Banking Relationships R2 | Count | Percent |
|---|---|---|---|---|---|
| Buy | 42 | 41.58% | Buy | 31 | 73.81% |
| Hold | 52 | 51.49% | Hold | 39 | 75.00% |
| Sell | 7 | 6.93% | Sell | 5 | 71.43% |

R2 Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only closed end funds. A closed end fund rated Neutral is included as a Hold, and a closed end fund rated Underperform is included as a Sell.

**Exchange-Traded Funds Investment Rating Distribution: Global Group (as of 31 Dec 2023)**

| Coverage Universe | Count | Percent | Inv. Banking Relationships R3 | Count | Percent |
|---|---|---|---|---|---|
| Buy | 80 | 19.61% | Buy | 53 | 66.25% |
| Hold | 317 | 77.70% | Hold | 241 | 76.03% |
| Sell | 11 | 2.70% | Sell | 7 | 63.64% |

R3 Exchange-traded funds (ETFs), or the ETF providers, that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only ETFs. An ETF rated 1-FV is included as a Buy; an ETF rated 2-FV, 3-FV, 1-NV, 2-NV, 3-NV, 1-UF or 2-UF is included as a Hold; and an ETF rated 3-UF is included as a Sell.

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 R4 |
|---|---|---|
| Buy | ≥ 10% | ≤ 70% |
| Neutral | ≥ 0% | ≤ 30% |
| Underperform | N/A | ≥ 20% |

R4 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.

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decrease and that the stock price is expected to decline.
EXCHANGE-TRADED FUNDS (ETF) INVESTMENT OPINION KEY: Opinions reflect both an Outlook Rating and a Category Rating. OUTLOOK RATINGS reflect the analyst's assessment of the ETF's attractiveness relative to other ETFs within its category (including sector, region, asset class, thematic, and others). There are three outlook ratings: 1 - the ETF is more attractive than covered peers in the same category over the next 12 months; 2 - the ETF is similarly attractive to covered peers in the same category over the next 12 months; and 3 - the ETF is less attractive than covered peers in the same category over the next 12 months. CATEGORY RATINGS, indicators of the analyst's view of the ETF's category and which incorporate published views of BofA Global Research department analysts, are: FV - Favorable view, NV - Neutral view and UF - Unfavorable view.

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