

## Quick RIC

## Tax-efficient upgrades hiding in plain sight

## 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.

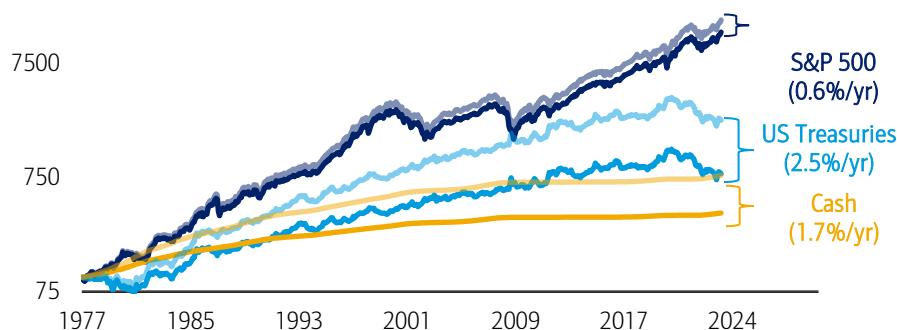
## Five ways to make portfolios more tax-efficient

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 &amp; 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=G802; Cash=G001. See appendix for tax disclosures.

BofA GLOBAL RESEARCH

12 March 2024

Investment Strategy  
Global

Research Investment Committee  
BofAS

**Jared Woodard**  
Investment & ETF Strategist  
BofAS  
+1 646 855 2600  
jared.woodard@bofa.com

**John Glascock**  
Investment & ETF Strategist  
BofAS  
+1 646 855 3402  
john.glascock@bofa.com

**Phoebe Block**  
Investment & ETF Strategist  
BofAS  
+1 646 241 5941  
phoebe.block@bofa.com

**Derek Harris**  
Portfolio Strategist  
BofAS  
+1 646 743 0218  
derek.harris@bofa.com

**Chris Flanagan**  
FI/MBS/CLO Strategist  
BofAS  
+1 646 855 6119  
christopher.flanagan@bofa.com

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.

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

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

**Refer to important disclosures on page 13 to 16. Analyst Certification on page 12. 12669797**

Timestamp: 12 March 2024 03:27PM EDT

# 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.

## 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 2: Bonds only hedge stocks when inflation is at record lows

Rolling 10-year correlation between US stocks and Treasury bonds

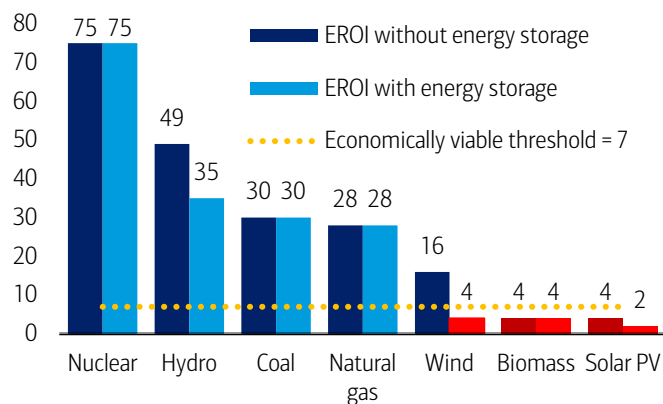


Source: BofA Research Investment Committee, Global Financial Data. Note: stocks = S&P 500 total return; bonds = 10-year US Treasury bond.

BofA GLOBAL RESEARCH

## 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

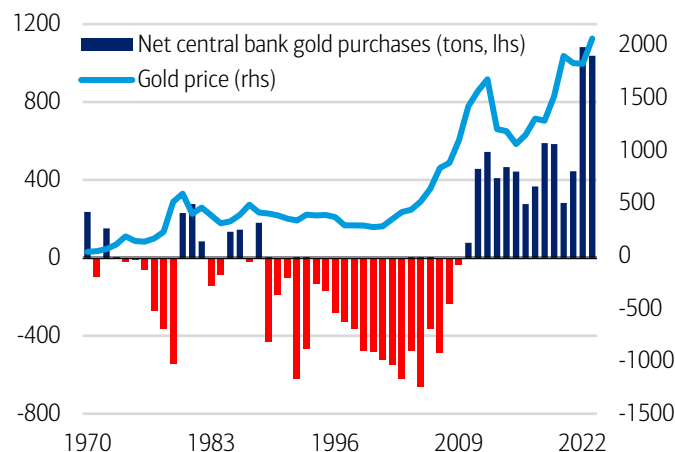


Source: BofA Research Investment Committee, D. Weißbach, G. Ruprecht, A. Huke, K. Czerski, S. Gottlie, A. Hussein (2013); Red bars signal EROI below the economically viable threshold.

BofA GLOBAL RESEARCH

## 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

BofA GLOBAL RESEARCH

## 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.

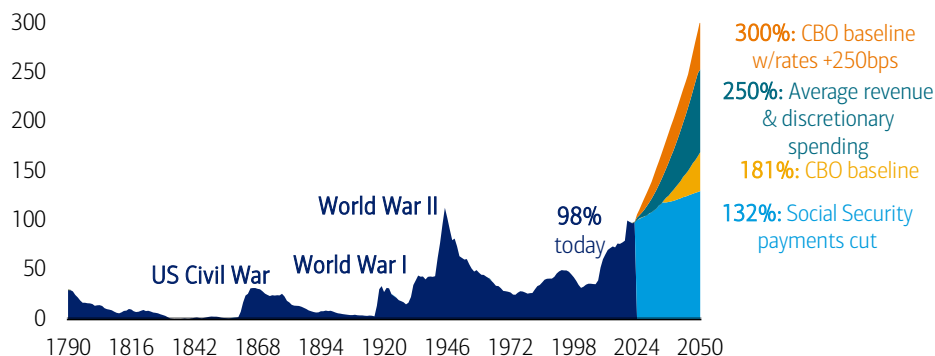
## Higher government debt will likely put upward pressure on yields

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.

BofA GLOBAL RESEARCH

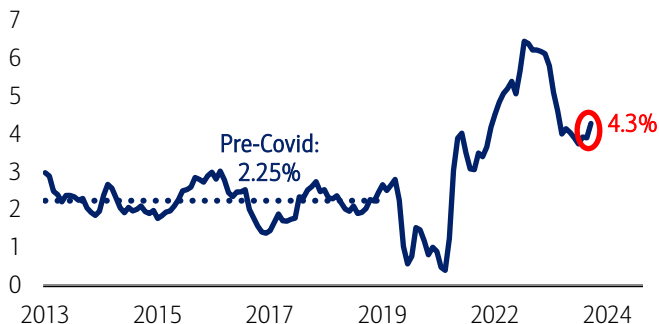
## Spiraling government debt ends with higher taxes or higher inflation

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%

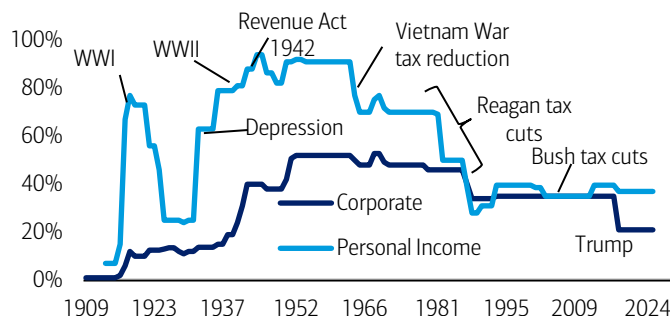


**Source:** BofA Research Investment Committee, Bloomberg

BofA GLOBAL RESEARCH

### Exhibit 7: Taxes are already near 100-year lows

Corporate & personal income taxes since 1909 (top tax bracket)



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

BofA GLOBAL RESEARCH



# 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)

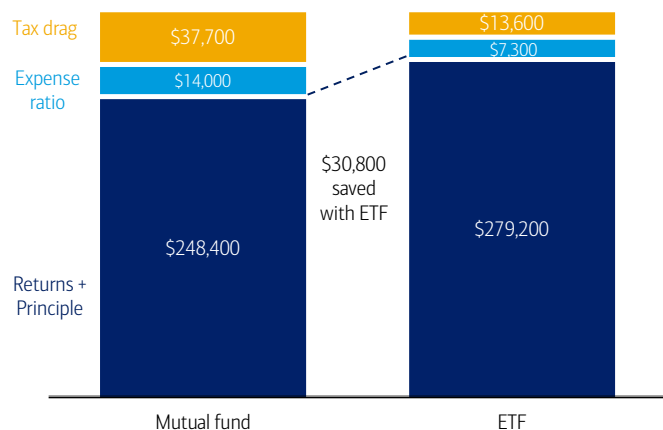
## \$250bn in tax savings & ETFs are just getting started

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

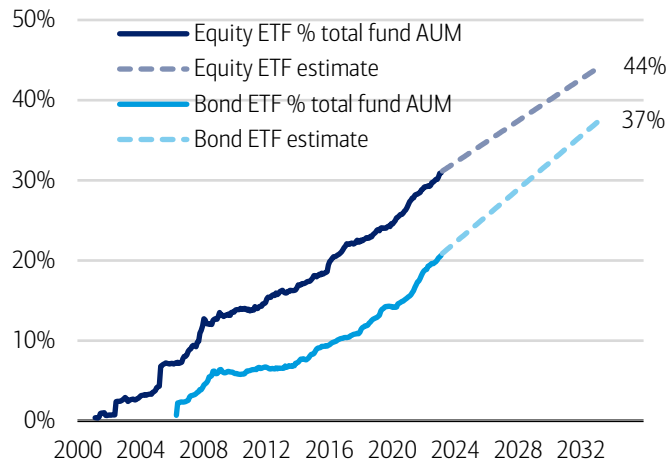


Source: BofA Research Investment Committee, Investment Company Institute, Moussawi et al. (2022), Bloomberg; ETF = SPY US Equity, mutual fund = SWPPX US Equity, relative to SPTR index. See appendix for tax disclosures.

BofA GLOBAL RESEARCH

### 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

BofA GLOBAL RESEARCH

## 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.

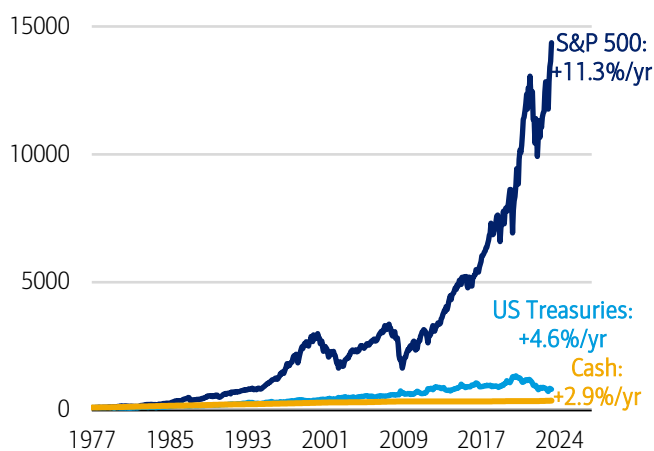
Most equity payouts, however, are classified as qualified dividend income (QDI), and taxed at a maximum rate of 20%. Equities have outperformed bonds and cash by 6.7-8.5% a year, net of taxes, for nearly 50 years (Exhibit 10).

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).

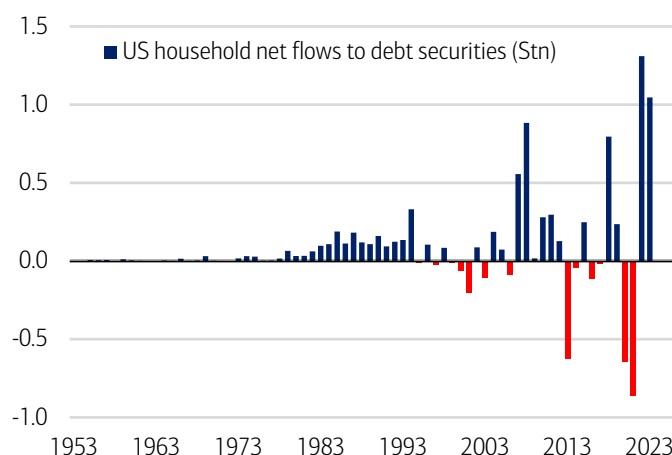
**Exhibit 10: Equities are more tax efficient than Treasuries & cash**  
Cumulative total returns for US stocks, Treasuries, and cash net of taxes\*



**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=G802; Cash=G001. See appendix for tax disclosures.

BofA GLOBAL RESEARCH

**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.

BofA GLOBAL RESEARCH

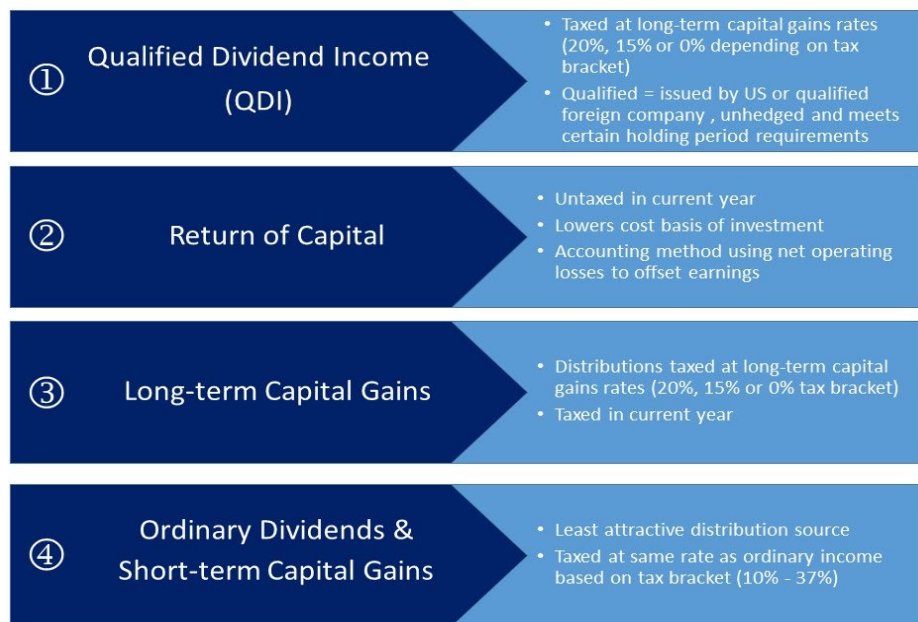
## Four sources of taxable income for investors

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.

BofA GLOBAL RESEARCH

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

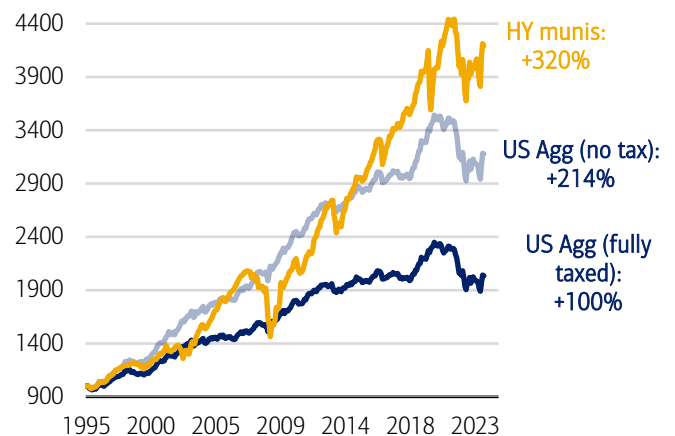
Prudent Yield sectors averaged 8.8% returns after taxes in 2023 compared to just 4.4% for the US Aggregate Bond Index and 1.5% for long term Treasuries.

- 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

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](#)).

**Exhibit 13: HY munis outperformed the US Aggregate bond index by 220% net of taxes**

Hypothetical growth of \$1000 in US Agg gross &amp; 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.

BofA GLOBAL RESEARCH



#### 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.

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).

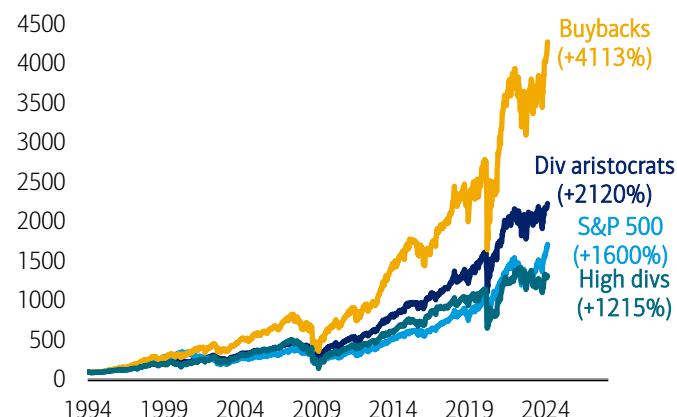
##### Dividend funds should be reserved for true income investors (SCHD, VYM)

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 14: Buybacks have been most tax-efficient capital return factor

Cumulative returns of different S&P 500 factors, net of taxes\* (%)

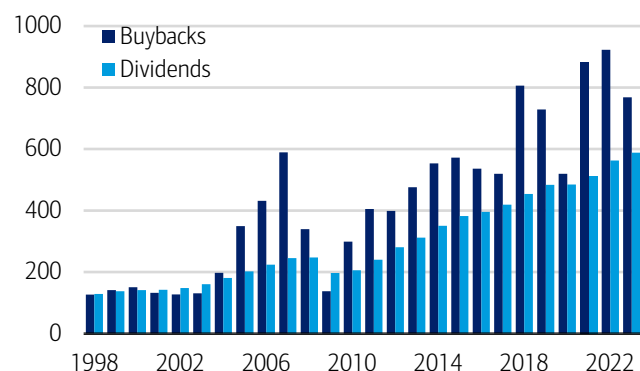


Source: BofA Research Investment Committee, Bloomberg. \*We assume a 20% tax rate on dividends assessed QDI.

BofA GLOBAL RESEARCH

#### Exhibit 15: US corporates have embraced buybacks > dividends

Aggregate value of S&P 500 gross buybacks and dividends (\$bn)

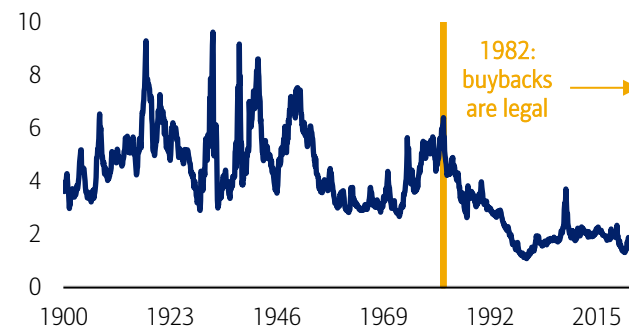


Source: BofA Research Investment Committee, Haver, Standard & Poor's. Note: 2023 data is annualized.

BofA GLOBAL RESEARCH

#### Exhibit 16: Dividend yield near all-time lows as buybacks proliferate

S&P 500 dividend yield, %



Source: BofA Research Investment Committee, Global Financial Data

BofA GLOBAL RESEARCH

## 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.

BofA GLOBAL RESEARCH

### 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.



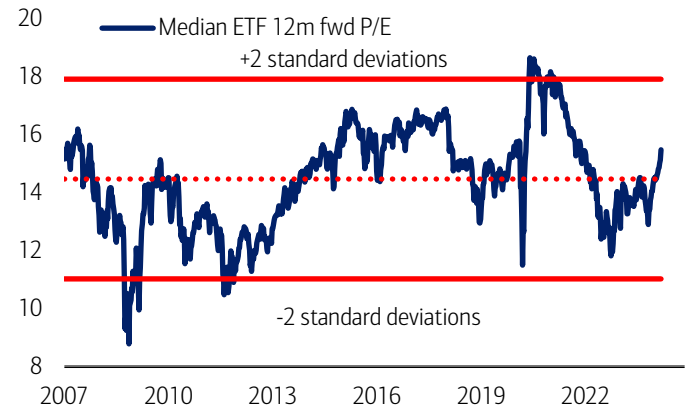
# ETF Valuation

## 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 using 12m fwd P/E ratios for all equity ETFs in our coverage.

BofA GLOBAL RESEARCH

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

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.

BofA GLOBAL RESEARCH



# 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%.

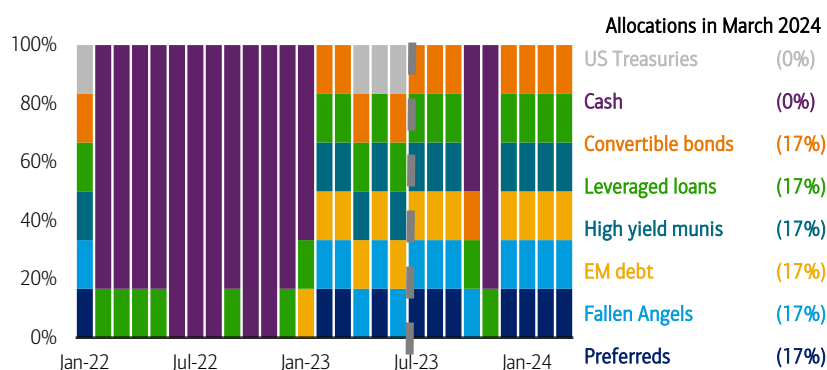
In the month that was, we reiterated our bullish view on [HY munis](#), discussed the strong 2024 outlook for [preferreds](#) with Michael Youngworth, and revisited our [preference for credit](#) over equities and bonds in a “5% world”.

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

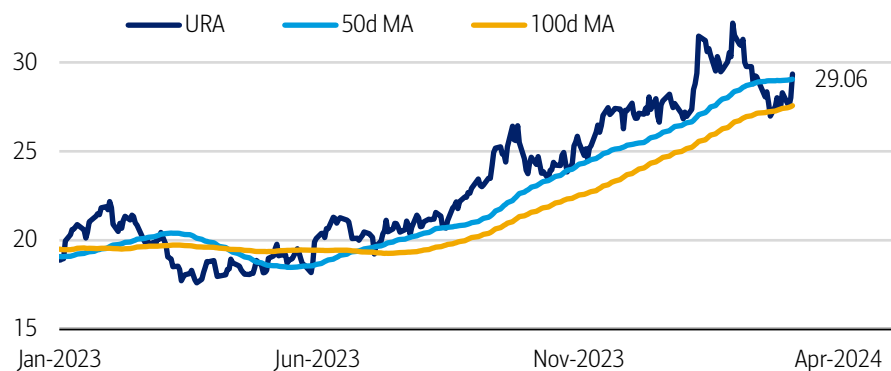
BofA GLOBAL RESEARCH

## 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

BofA GLOBAL RESEARCH

# 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
EWV	iShares MSCI Mexico ETF	66	1-FV MORE ATTRACTIVE
KBA	KraneShares Boseri 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
EWK	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

BofA GLOBAL RESEARCH

**Analyst Certification**

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



# Disclosures

## Important Disclosures

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

Coverage Universe	Count	Percent	Inv. Banking Relationships <sup>R1</sup>	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%

<sup>R1</sup> 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 <sup>R2</sup>	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%

<sup>R2</sup> 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 <sup>R3</sup>
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

<sup>R3</sup> Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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

**Closed-end Fund Investment Opinion Key:** The Opinion key includes an identifier and an investment rating. The identifier, "F," denotes a closed-end fund and the number is a fund's investment rating, which is based on our 12 month expectation of stability of the Fund's distributions (including net investment income, short and long term capital gains and return of capital) and stock price from the date of the initial rating, with 1 - Buy indicating that distributions are expected to be the same or increase and that the stock price is expected to be stable or increase; 2 - Neutral, indicating that distributions are expected to remain the same or decrease and that the stock price is expected to be stable; and 3 - Underperform, indicating that distributions are expected to 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.

Price Charts for the securities referenced in this research report are available on the [Price Charts website](#), or call 1-800-MERRILL to have them mailed.

BofAS or one of its affiliates acts as a market maker for the equity securities recommended in the report: 1st Trust Financ ETF, 1st Trust Indus Fund, 1st Trust Mater ETF, 1st Trust Techn ETF, AberdeenGlobDiv Fund, ALPS Disruptive Tech, Eaton Van-T/A, Eng Transform500 ETF, FirstTrust SmCap ETF, FlexShares Qual LC, Franklin Canada ETF, FT Muni High Income, FT Rise Div Acch ETF, FT STX EUROPE ETF, Ftrust Morning Div, Gabelli Div&Inc, Global X AI & Tech, Global X MLP ETF, Global X Uranium ETF, Global X US Pref, GlobalX MLP&Ener ETF, Hartford Dev Mkt ETF, Inv DWA EnrgMomentum, Invesco Buyback ETF, Invesco Cons ETF, Invesco DWA ETF, Invesco Intl Div, Invesco Int'lBuyback, Invesco S&P EWU ETF, Invesco Wh Cln Ener, InvescoSP500 PureVal, iShares ACWI ex US, iShares Canada ETF, iShares Chile ETF, iShares Cons Srv ETF, iShares Core S&P ETF, iShares Currency ETF, iShares Div&Buyback, iShares Edg MSCI ETF, iShares EM ex China, iShares Global Clean, iShares India SC ETF, iShares Indonesia, iShares Intl Div ETF, iShares JPX-NIKK ETF, iShares LATAM 40 ETF, iShares Long UST, iShares Material ETF, iShares Mexico ETF, iShares MSCI HK ETF, iShares MSCI M&M ETF, iShares Robo&AI ETF, iShares S&P 100 ETF, iShares S&P 500 ETF, iShares S&P Mid ETF, iShares Saudi Arabia, iShares US, iShares-DJ Telecom, iSharesESG MSCI EM, John Hancock Tax Adv, KraneS CHINA ETF, MFS Muni Income CEF, Nuveen Dvd Ad 3, NuveenMuni High Inc, Pacer US S Cap C Cow, Pacer USCashCows ETF, Schwab Div ETF, Schwab L Cap Grw, Schwab US Large ETF, Schwab US MidCap ETF, Schwab US REIT ETF, SPDR BBG HY Muni, SPDR Comm Serv ETF, SPDR Energy ETF, SPDR EuroStoxx50 ETF, SPDR Financ ETF, SPDR Healthca ETF, SPDR High Div ETF, SPDR Industr ETF, SPDR REIT ETF, SPDR S&P Met&Min, SPDR Tech ETF, SPDR Utilities ETF, VanEck HY Muni, VanEck Pref x Fin, VanEck Urn+Nud ETF, VanEck Vietnam ETF, Vanguard Cons ETF, Vanguard Div ETF, Vanguard Intl Div, Vanguard Value ETF, Vanguard World ex US, WSDTRE JPN Hdg ETF, WT Ex-Val ETF, WTree India Earnings, Xtrackers EM Hdg ETF. BofAS or an affiliate was a manager of a public offering of securities of this issuer within the last 12 months: BlackRock, Inc., Charles Schwab, Manulife, State Street, Sun Life.

The issuer is or was, within the last 12 months, an investment banking client of BofAS and/or one or more of its affiliates: Abrdn Plc, BlackRock, Inc., Charles Schwab, Deutsche Bank, Franklin Resources, GGCP, Invesco, Manulife, Morgan Stanley, Northern Trust Corpo, SS&C Technologies Ho, State Street, Sun Life, The Hartford, WisdomTree.

BofAS or an affiliate has received compensation from the issuer for non-investment banking services or products within the past 12 months: Abrdn Plc, BlackRock, Inc., Charles Schwab, Deutsche Bank, Eng Transform500 ETF, Franklin Resources, GGCP, Invesco, Krane Funds Advisors, Manulife, Mirae Asset Global, MiraeAsset Sec, Morgan Stanley, Northern Trust Corpo, Pacer Advisors, SS&C Technologies Ho, State Street, Sun Life, The Hartford, Vanek, Vanguard Group Inc, WisdomTree.

The issuer is or was, within the last 12 months, a non-securities business client of BofAS and/or one or more of its affiliates: Abrdn Plc, BlackRock, Inc., Charles Schwab, Deutsche Bank, Franklin Resources, GGCP, Invesco, Krane Funds Advisors, Manulife, Mirae Asset Global, MiraeAsset Sec, Morgan Stanley, Northern Trust Corpo, Pacer Advisors, SS&C Technologies Ho, State Street, Sun Life, The Hartford, Vanek, Vanguard Group Inc, WisdomTree.

BofAS or an affiliate has received compensation for investment banking services from this issuer within the past 12 months: Abrdn Plc, BlackRock, Inc., Charles Schwab, Deutsche Bank, Franklin



Resources, GGCP, Invesco, Manulife, Morgan Stanley, SS&C Technologies Ho, State Street, Sun Life, The Hartford, WisdomTree.

BofAS or an affiliate expects to receive or intends to seek compensation for investment banking services from this issuer or an affiliate of the issuer within the next three months: Abrdn Plc, BlackRock, Inc., Charles Schwab, Deutsche Bank, Franklin Resources, GGCP, Invesco, Manulife, Morgan Stanley, Northern Trust Corpo, SS&C Technologies Ho, State Street, Sun Life, The Hartford, WisdomTree.

BofAS together with its affiliates beneficially owns one percent or more of the shares of this fund. If this report was issued on or after the 9th day of the month, it reflects the ownership position on the last day of the previous month. Reports issued before the 9th day of the month reflect the ownership position at the end of the second month preceding the date of the report: 1st Trust Financ ETF, 1st Trust Indus Fund, 1st Trust Mater ETF, 1st Trust Techn ETF, AberdeenGlobDiv Fund, ALPS Disruptive Tech, Eaton Van-T/A, Eng Transform500 ETF, FirstTrust SmCap ETF, Franklin Canada ETF, FT Muni High Income, FT Rise Div Acch ETF, FT STX EUROPE ETF, Ftrust Morning Div, Gabelli Div&Inc, Global X AI & Tech, Global X MLP ETF, Global X Uranium ETF, Global X US Pref, GlobalX MLP&Ener ETF, Hartford Dev Mkt ETF, Inv DWA EnrgMomentum, Invesco Buyback ETF, Invesco Cons ETF, Invesco DWA ETF, Invesco Intl Div, Invesco Intl'Buyback, Invesco S&P EWU ETF, Invesco Wh Cln Ener, InvescoSP500 PureVal, iShares ACWI ex US, iShares Canada ETF, iShares Cons Srv ETF, iShares Core S&P ETF, iShares Div&Buyback, iShares Edg MSCI ETF, iShares EM ex China, iShares Global Clean, iShares India SC ETF, iShares Indonesia, iShares Intl Div ETF, iShares JPY-NIKK ETF, iShares LATAM 40 ETF, iShares Long UST, iShares Material ETF, iShares Mexico ETF, iShares MSCI M&M ETF, iShares Robo&AI ETF, iShares S&P 100 ETF, iShares S&P 500 ETF, iShares S&P Mid ETF, iShares Saudi Arabia, iShares US, iShares-DJ Telecom, iSharesESG MSCI EM, John Hancock Tax Adv, MFS Muni Income CEF, Nuveen Dvd Ad 3, Pacer US S Cap C Cow, Pacer USCashCows ETF, Schwab Div ETF, SPDR BBG HY Muni, SPDR Comm Serv ETF, SPDR Energy ETF, SPDR EuroStoxx50 ETF, SPDR Financ ETF, SPDR Healthca ETF, SPDR High Div ETF, SPDR Industr ETF, SPDR REIT ETF, SPDR S&P Met&Min, SPDR Tech ETF, SPDR Utilities ETF, VanEck HY Muni, VanEck Pref x Fin, VanEck Urn+Nudl ETF, Vanguard Cons ETF, Vanguard Div ETF, Vanguard Intl Div, Vanguard Value ETF, Vanguard World ex US, WSDTRE JPN Hdg ETF, WTree India Earnings, Xtrackers EM Hdg ETF.

BofAS or one of its affiliates is willing to sell to, or buy from, clients the common equity of the issuer on a principal basis: 1st Trust Financ ETF, 1st Trust Indus Fund, 1st Trust Mater ETF, 1st Trust Techn ETF, AberdeenGlobDiv Fund, ALPS Disruptive Tech, Eaton Van-T/A, Eng Transform500 ETF, FirstTrust SmCap ETF, FlexShares Qual LC, Franklin Canada ETF, FT Muni High Income, FT Rise Div Acch ETF, FT STX EUROPE ETF, Ftrust Morning Div, Gabelli Div&Inc, Global X AI & Tech, Global X MLP ETF, Global X Uranium ETF, Global X US Pref, GlobalX MLP&Ener ETF, Hartford Dev Mkt ETF, Inv DWA EnrgMomentum, Invesco Buyback ETF, Invesco Cons ETF, Invesco DWA ETF, Invesco Intl Div, Invesco Intl'Buyback, Invesco S&P EWU ETF, Invesco Wh Cln Ener, InvescoSP500 PureVal, iShares ACWI ex US, iShares Canada ETF, iShares Chile ETF, iShares Cons Srv ETF, iShares Core S&P ETF, iShares Currency ETF, iShares Div&Buyback, iShares Edg MSCI ETF, iShares EM ex China, iShares Global Clean, iShares India SC ETF, iShares Indonesia, iShares Intl Div ETF, iShares JPY-NIKK ETF, iShares LATAM 40 ETF, iShares Long UST, iShares Material ETF, iShares Mexico ETF, iShares MSCI HK ETF, iShares MSCI M&M ETF, iShares Robo&AI ETF, iShares S&P 100 ETF, iShares S&P 500 ETF, iShares S&P Mid ETF, iShares Saudi Arabia, iShares US, iShares-DJ Telecom, iSharesESG MSCI EM, John Hancock Tax Adv, MFS Muni Income CEF, Nuveen Dvd Ad 3, NuveenMuni High Inc, Pacer US S Cap C Cow, Pacer USCashCows ETF, Schwab Div ETF, Schwab L Cap Grw, Schwab US Large ETF, Schwab US MidCap ETF, Schwab US REIT ETF, SPDR BBG HY Muni, SPDR Comm Serv ETF, SPDR Energy ETF, SPDR EuroStoxx50 ETF, SPDR Financ ETF, SPDR Healthca ETF, SPDR High Div ETF, SPDR Industr ETF, SPDR REIT ETF, SPDR S&P Met&Min, SPDR Tech ETF, SPDR Utilities ETF, VanEck HY Muni, VanEck Pref x Fin, VanEck Urn+Nudl ETF, VanEck Vietnam ETF, Vanguard Cons ETF, Vanguard Div ETF, Vanguard Intl Div, Vanguard Value ETF, Vanguard World ex US, WSDTRE JPN Hdg ETF, WT Ex-Val ETF, WTree India Earnings, Xtrackers EM Hdg ETF.

The issuer is or was, within the last 12 months, a securities business client (non-investment banking) of BofAS and/or one or more of its affiliates: Abrdn Plc, BlackRock, Inc., Charles Schwab, Deutsche Bank, Eng Transform500 ETF, Franklin Resources, GGCP, Invesco, Krane Funds Advisors, Manulife, Mirae Asset Global, MiraeAsset Sec, Morgan Stanley, Northern Trust Corpo, Pacer Advisors, SS&C Technologies Ho, State Street, Sun Life, The Hartford, VanEck, Vanguard Group Inc, WisdomTree.

Due to the nature of strategic analysis, the issuers or securities recommended or discussed in this report are not continuously followed. Accordingly, investors must regard this report as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or securities.

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.

BofAS and/or its affiliates participate in the creation and redemption of these ETFs and are an authorized participant for such ETFs: 1st Trust Financ ETF, 1st Trust Indus Fund, 1st Trust Mater ETF, 1st Trust Techn ETF, FirstTrust SmCap ETF, FlexShares Qual LC, FT Muni High Income, FT Rise Div Acch ETF, FT STX EUROPE ETF, Ftrust Morning Div, Global X MLP ETF, Global X US Pref, GlobalX MLP&Ener ETF, Hartford Dev Mkt ETF, Inv DWA EnrgMomentum, Invesco Buyback ETF, Invesco Cons ETF, Invesco DWA ETF, Invesco Intl Div, Invesco Intl'Buyback, Invesco S&P EWU ETF, Invesco Wh Cln Ener, InvescoSP500 PureVal, iShares ACWI ex US, iShares Canada ETF, iShares Chile ETF, iShares Cons Srv ETF, iShares Core S&P ETF, iShares Currency ETF, iShares Div&Buyback, iShares Edg MSCI ETF, iShares EM ex China, iShares Global Clean, iShares India SC ETF, iShares Indonesia, iShares Intl Div ETF, iShares JPY-NIKK ETF, iShares LATAM 40 ETF, iShares Long UST, iShares Material ETF, iShares Mexico ETF, iShares MSCI HK ETF, iShares MSCI M&M ETF, iShares S&P 100 ETF, iShares S&P 500 ETF, iShares S&P Mid ETF, iShares Saudi Arabia, iShares US, iShares-DJ Telecom, iSharesESG MSCI EM, KraneS CHINA ETF, Pacer US S Cap C Cow, Pacer USCashCows ETF, Schwab Div ETF, Schwab L Cap Grw, Schwab US Large ETF, Schwab US MidCap ETF, Schwab US REIT ETF, SPDR BBG HY Muni, SPDR EuroStoxx50 ETF, SPDR High Div ETF, VanEck HY Muni, VanEck Pref x Fin, VanEck Urn+Nudl ETF, WSDTRE JPN Hdg ETF, WT Ex-Val ETF, WTree India Earnings, Xtrackers EM Hdg ETF

## Other Important Disclosures

The covered issuer and/or one or more of its affiliates holds 5% or more of the total issued share capital of Bank of America Corporation: BlackRock, Inc., Vanguard Group Inc.

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.

One or more analysts responsible for covering the funds in this report own(s) a position in a company that constitutes a significant portion of the assets of the subject fund: URA

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

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.

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

This information has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by 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.

This report may contain a short-term trading idea or recommendation, which highlights a specific near-term catalyst or event impacting the issuer or the market that is anticipated to have a short-term price impact on the equity securities of the issuer. Short-term trading ideas and recommendations are different from and do not affect a stock's fundamental equity rating, which reflects both a longer term total return expectation and attractiveness for investment relative to other stocks within its Coverage Cluster. Short-term trading ideas and recommendations may be more or less positive than a stock's fundamental equity rating.

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 herein. Investors in such securities and instruments, including ADRs, 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.

ETFs are redeemable only in Creation Unit size through an Authorized Participant and may not be individually redeemed. ETFs also are redeemable on an "in-kind" basis. The mechanism for creation and redemption of ETFs may be disrupted due to market conditions or otherwise.

The public trading price of an ETF may be different from its net asset value, and an ETF could trade at a premium or discount to its net asset value.

Investors in ETFs with international securities assume currency risk.

U.S. exchange-listed, open-end ETFs must be offered under and sold only pursuant to a prospectus. U.S. exchange-listed ETFs may not be marketed or sold in a number of non-U.S. jurisdictions and may not be suitable for all investors. Investors should consider the investment objectives, risks, charges and expenses of the ETF carefully before investing. The prospectus for the ETF contains this and other information about the ETF. Clients may obtain prospectuses for the ETFs mentioned in this report from the ETF distributor or their Merrill Global Wealth Management





financial advisor. The prospectuses contain more complete and important information about the ETFs mentioned in this report and should be read carefully before investing. BofAS or one of its affiliates receives licensing fees in connection with certain Select Sector Indices, Select Sector SPDR Funds, and the use of various marks associated with the foregoing. Such fees are paid from The Select Sector SPDR Trust ("Trust"), in respect of each Select Sector SPDR Fund, based on the average aggregate daily net assets of such Select Sector SPDR Fund (based on net asset value as described in the Trust's prospectus). Such fees also may be made in respect of other ETF providers for the right to create ETFs based on the Select Sector Indices, or different versions thereof.

"Standard & Poor's®", "S&P®", "S&P 500®", "Standard & Poor's 500", "500", "Standard & Poor's Depositary Receipts®", "SPDRs®", "Select Sector SPDR" and "Select Sector Standard & Poor's Depositary Receipts" are trademarks of The McGraw-Hill Companies, Inc. and have been licensed for use in connection with the listing and trading of Select Sector SPDRs on the AMEX. The stocks included in each Select Sector Index (upon which the Select Sector SPDRs are based) were selected by the index compilation agent in consultation with S&P from the universe of companies represented by the S&P 500 Index. The composition and weightings of the stocks included in each Select Sector Index can be expected to differ from the composition and weighting of stock included in any similar S&P 500 sector index that is published and disseminated by S&P.

For clients in Wealth Management, to the extent that the securities referenced in this report are ETFs or CEFs, investors should note that (1) the views and ratings presented by BofA Global Research personnel may vary from those of other business units of BofA Securities, including the Due Diligence group within the Chief Investment Office of MLPF&S ("CIO Due Diligence"); and (2) the CIO Due Diligence review process is used to determine the availability of an ETF or CEF for purchase through the Wealth Management division of MLPF&S and its affiliates.

#### 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 or 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.

Subject to the quiet period applicable under laws of the various jurisdictions in which we distribute research reports and other legal and BofA Securities policy-related restrictions on the publication of research reports, fundamental equity reports are produced on a regular basis as necessary to keep the investment recommendation current.

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.