WELLS FARGO

Investment Institute

Investment Strategy



July 3, 2023

Weekly guidance from our Investment Strategy Committee

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- We are currently favorable duration. We are comfortable adding additional duration exposure, and we would be more aggressive in doing so when U.S. 10-year Treasury yields cross above 4%.
- Investors who have taken advantage of the attractive interest rates on the short end of the curve may find that adding longer-term bonds could help them mitigate reinvestment risk without incurring too much interest rate risk.

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- We expect the direct pay and transferability provisions of the Inflation Reduction Act to simplify clean energy project financing and broaden the universe of potential project developers.
- We continue to view the legislation as a significant boost to the clean energy ecosystem.

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- Higher interest rates are having a more pronounced negative effect on heavily indebted telecommunication companies within the wireline group.
- Credit risk is rising for investment grade wireline bonds, in our view, while high-yield wireline bonds are at a heightened risk of default over the next five years.

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- A number of large, publicly traded oil and gas producers have adopted a variable dividend framework over the past two years.
- We analyzed how the volatility in oil prices has impacted variable dividend yields over the past four quarters.

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- Fundraising and deal activity remains elevated in middle market funds relative to other private equity segments.
- We maintain our favorable cyclical view on middle market private equity based on the constructive environment.

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Fixed Income Spotlight

Luis Alvarado

Global Investment Strategist

The case to maintain duration exposure

We believe the next 6 to 18 months will be a tale of two or even three different environments for fixed-income investors. Currently, it appears to us that short-term interest rates could move slightly higher as the Federal Reserve (Fed) continues to battle inflation. Next, we expect rates to move lower as inflation recedes and we enter a recession, and then, as we move into an economic recovery phase, we expect rates to move slightly higher again.

Currently, duration positioning is critical for portfolios, as all else equal, when interest rates have fallen (which is our expectation), longer duration portfolios historically have outperformed short duration portfolios.

Understanding duration

Generally speaking, if interest rates move higher, bond prices fall, and if interest rates move lower, bond prices rise. Duration is one measure of the sensitivity of a bond's price to a change in interest rate movements. The duration calculation can be broadly used by investors to approximate the percentage change in price for an instantaneous one percent parallel shift in the yield curve. For example, the price of a bond with a duration of five years would be expected to rise or fall about 5% in price for every one percent change in market interest rates. The longer (higher) the duration, the more prices will fluctuate as interest rates rise and fall.

Long-term bonds tend to have longer durations, and prices can rise and fall quickly during periods of significant interest rate movements. This was evident during 2022 when the Fed raised policy interest rates at a fast pace, which caused bonds to deliver their worst returns in more than 30 years.

Let's look at a hypothetical example: the table shows that if you purchased a U.S. 30-year Treasury bond at par on June 26, 2023, you would have received a yield of 3.82%. If interest rates increase by 50 basis points (bps), or 0.5%, the price of the bond you bought would fall by close to 8% — from \$100 to \$92. On the other hand, if rates fall, investors could experience a similar increase in market value. The same dynamic also holds for the other bonds in the table below.

Table 1. The impact of duration –	- Estimated c	changes in	bond p	rices as i	interest rates cl	hange
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	Yield	Duration	Par Value	+50bp*	-50bp*	-100bp*
30-year bond	3.82%	17.77	100	92	109	120
10-year note	3.72%	8.3	100	96	104	109
5-year note	3.97%	4.49	100	98	102	105
2-year note	4.75%	1.89	100	99	101	102

Source: Wells Fargo Investment Institute and Bloomberg as of June 26, 2023. *Market value after instantaneous increase in the yield curve; 100 basis points(bps) equals 1 percent. Examples are used for illustrative purposes only and do not reflect the rates for any investment available for purchase. Duration is a measure used to determine a bond's or bond portfolio's sensitivity to movements in interest rates. Generally, the longer the duration the more sensitive a bond or bond portfolio is to changes in interest rates.

As with individual bonds, it is also possible to obtain the duration of fixed income exchange-traded funds and bond mutual funds. This number can be applied in the same manner to determine the approximate amount of price fluctuation that can be expected as interest rates change.

Duration application

On October 26, 2022, we moved to favorable on duration relative to an investor's individual benchmark. Our view was that a favorable duration stance would be an opportunity, as we believed rates had most likely peaked for this cycle and we expected rates to drift lower inside our tactical timeframe of 6 to 18 months. Rates did eventually fall (somewhat faster than we had originally anticipated) (see chart below).

Taranary Transary Tra

- Intermediate-term bonds

Chart 1. Long-term bonds have benefited since the October peak in rates

Source: Wells Fargo Investment Institute and Bloomberg as of June 26, 2023. Short-term bonds represented by the Bloomberg U.S. Aggregate 1-3 Year Bond Index. Intermediate-term bonds represented by the Bloomberg U.S. Aggregate 5-7 Year Bond Index. Long-term bonds represented by the Bloomberg U.S. Aggregate 10+ Year Bond Index. An index is not available for direct investment. **Past performance is no guarantee of future results**. See disclosure in the back for index definitions.

However, since yields have been mostly range bound for the past two months, a question we are frequently asked is at what level should we add more duration exposure? In our opinion, all else equal, we are comfortable adding additional duration exposure and would be more aggressive in doing so when U.S. 10-year Treasury yields cross above 4%.

Implications for investors

Short-term bonds

Investors can use duration as a guide to understand the potential price movements that they can expect in their portfolio in different interest rate scenarios. Through this exercise, investors can better target a duration that they are comfortable with. The right duration target for investors often depends on an investor's individual goals and preferences. We currently favor keeping durations above benchmark level. For reference, as of June 26, the Bloomberg U.S. Aggregate Index, a commonly used benchmark for investment-grade allocations, has a duration of 6.27 years.

Investors who have taken advantage of the attractive interest rates on the short end of the curve may find that adding longer-term bonds could help them mitigate reinvestment risk without incurring too much interest rate risk, as we expect interest rates to fall once the Fed finishes its hiking cycle. Longer maturity bonds not only have the potential to increase the income of an investor's portfolio — especially once interest rates begin to fall — but can also offer investors an asset class that tends to be negatively correlated with equity positions, helping to smooth portfolio returns during recessionary periods.

Equities

Joe Buffa

Equity Sector Analyst

Utilities should benefit from clean energy tax credits

In mid-June, the Internal Revenue Service (IRS) issued much-anticipated guidance related to Inflation Reduction Act (IRA) tax credits for clean energy projects. As a reminder, many of the IRA's provisions require IRS guidance on how exactly the tax benefits will be implemented; this guidance has been released as it becomes finalized.

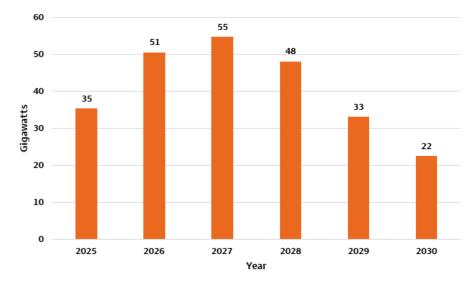
In the IRS' latest release, guidance points were for direct pay, which is formally referred to as elective payment, and transferability. In our view, these are two important parts of the landmark clean energy legislation as it relates to utilities and the continued deployment of renewable power generation.

- **Direct pay** allows tax-exempt organizations (think electric co-ops or municipally owned utilities) to claim the equivalent of a tax credit as a cash payment from the IRS for qualifying clean energy projects. This provision also applies to businesses with minimal tax liabilities many public utilities fall into this category.
- Transferability allows for-profit entities (public utilities and the like) to sell their federal tax credits to a third party. An active, liquid market for the tax credits still needs to develop, but utility management teams have already noted interest for tax credits.

A notable positive related to these two provisions is that the somewhat complicated tax structures used historically for clean energy projects (tax equity financing schemes) will no longer be necessary. This should allow the project owner the opportunity to fully capitalize on the project's financial returns, and we expect it to simplify the process.

Overall, these IRS guidance points support our initial view on the IRA, namely that the legislation will provide long-tailed support to the clean energy transition and those companies, utilities included, that will enable it.

Estimated incremental wind and solar capacity due to IRA



Sources: U.S. Energy Information Administration and Wells Fargo Investment Institute. Data as of June 26, 2023.

Fixed Income

Eric Jasso, CFA, JD, MBA

Senior Retail Fixed Income Analyst

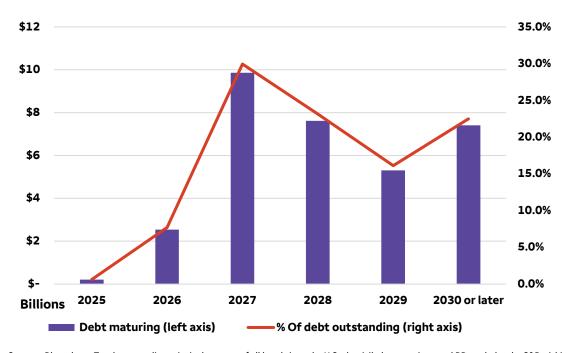
Challenges ahead for wireline providers

Telecommunication securities have long been an investor favorite when searching for higher yields and longer duration securities. Large wireline providers have utilized stable cash flow to offset sizable debt loads in maintaining investment-grade (IG) credit ratings. The risks of smaller, more heavily leveraged providers have perhaps been masked by more stable cash flows than other high-yield (HY) issuers in other sectors.

Historically, rating agencies have viewed the industry favorably, as lower interest rates had allowed for greater financial flexibility, notably to invest in more competitive fiber-based broadband offerings. However, now that the effects of rising funding costs and increasing competitive pressures from the cable and technology sectors are becoming more pronounced, we believe investors should reframe their view of the groups' risk-reward profile.

This year, wireline providers have reduced their expected investments in new fiber business in response to macroeconomic pressures and declining profitability in legacy businesses. Despite cutting back on necessary capital spending, S&P still forecasts the industry will see negative free operating cash flow and higher debt leverage through 2026, when a large portion of debt maturities begin to come due. We believe that credit risk is rising for IG wireline providers over the next five years and that current credit spreads do not offer relative value. We expect HY wireline providers to experience heightened default risk, which may put investor capital at risk of impairment.

High-yield wireline debt maturities



Sources: Bloomberg. Total outstanding principal amount of all bonds issue by U.S.-domiciled companies rated BB+ or below by S&P within the Wirelines classification maturing by year as of June 26, 2023.

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Real Assets

Ian Mikkelsen, CFA

Equity Sector Analyst

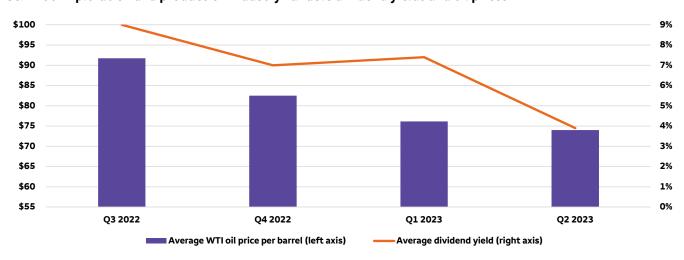
Checking in on variable dividends of E&P companies

During the commodity price recovery of 2021 - 2022, many exploration and production companies (E&Ps) adopted a variable shareholder return framework. This model is intended to reward investors with higher returns during periods of commodity price upside while protecting company balance sheets during periods of lower commodity prices. The specific formula varies by company, but the overarching framework generally consists of allocating a specific percentage of free cash flow² (typically between 50% and 75%) toward the combination of a variable dividend and share repurchases.

Considering the decline in oil prices year-to-date, we have evaluated dividend yields over the past four quarters for the E&Ps in the S&P 500 that have a variable dividend framework. These six companies have a combined market capitalization of \$301 billion and make up 21% of the S&P 500 Energy sector. Unsurprisingly, variable dividends are significantly lower in the current oil price environment. However, with an average annualized yield of 3.9% paid out in the second quarter of 2023, these yields remain highly competitive against the broader market at recent commodity price levels.

Additionally, we note that some companies have used the recent weakness in share prices to shift more of the total variable shareholder return toward opportunistic share repurchases rather than the variable dividend component. Total repurchases in the first quarter of 2023 amounted to \$3.75 billion, which represents 1.25% of the group's market capitalization (or an annualized shareholder repurchase yield of 5%). We believe that the variable shareholder return framework is working as intended.

S&P 500 Exploration and production industry variable dividend yields and oil prices



Source: Factset and Wells Fargo Investment Institute. Data as of June 23, 2023. Yields shown on an annualized basis. WTI = West Texas Intermediate. **Past** performance is not a guarantee of future results.

^{2.} Free cash flow is the amount of cash that a company has left over after it has paid all of its expenses, including investments.

Alternatives

Chao Ma, PhD, CFA, FRM

Global Portfolio and Investment Strategist

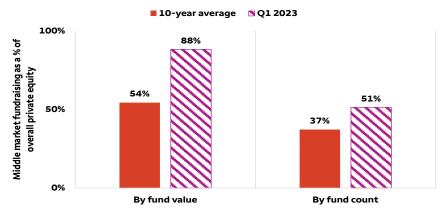
Private equity: The middle market engine is roaring

The middle market is commonly defined as companies generating revenues between \$10 million and \$1 billion. Fundraising and deal activity remains elevated in middle market funds relative to other private equity segments. The chart shows that middle market fundraising accounted for a majority of private equity capital raised in first-quarter 2023 — a level materially higher than 10-year averages. We believe the momentum in middle market private equity is due to the following drivers:

- Ample opportunities: According to National Center for the Middle Market, there are nearly 200,000 middle
 market companies in the U.S., representing one-third of total gross domestic product. More importantly,
 many middle market businesses are currently priced with a greater discount than larger companies due to
 higher exposure to economic downturn and reliance on tightening credit from regional banks.
- Growing interest from investors: Given the elevated market uncertainty and recession risks, private capital
 investors have turned more cautious. Investors have limited the size of future capital commitments and
 often seek more specialized opportunities, which should bode well for middle market funds.³
- Continued access to credit: Banks have tightened lending standards and decreased their issuance of leveraged loans that typically focus on the larger syndicated markets. Yet, well capitalized private credit providers have continued to finance middle market deals in the wake of the mini banking crisis.

It seems that the constructive environment for middle market investing is also reflected in performance. Based on data aggregated by Pitchbook, middle market funds outperformed other private equity funds by approximately 10% over the last 3 quarters of 2022. We maintain our favorable cyclical view on middle market private equity.

Middle market fundraising as a percentage of overall private equity capital raised



Sources: Pitchbook and Wells Fargo Investment Institute. Data as of March 31, 2023.

Alternative investments, such as hedge funds, private equity, private debt and private real estate funds are not appropriate for all investors and are only open to "accredited" or "qualified" investors within the meaning of U.S. securities laws.

^{3.} Pitchbook 2023 US PE Middle Market Report

Current tactical guidance

Cash Alternatives and Fixed Income

Most Unfavorable	Unfavorable	Neutral	Favorable	Most Favorable
	U.S. Intermediate Term Taxable Fixed Income High Yield Taxable Fixed Income	Cash Alternatives Developed Market Ex- U.S. Fixed Income Emerging Market Fixed Income	U.S. Taxable Investment Grade Fixed Income	U.S. Long Term Taxable Fixed Income U.S. Short Term Taxable Fixed Income

Equities

Most Unfavorable	Unfavorable	Neutral	Favorable	Most Favorable
U.S. Small Cap Equities	Emerging Market Equities	U.S. Mid Cap Equities Developed Market Ex- U.S. Equities	U.S. Large Cap Equities	

Real Assets

Most Unfavorable	Unfavorable	Neutral	Favorable	Most Favorable
		Private Real Estate	Commodities	

Alternative Investments*

Most Unfavorable	Unfavorable	Neutral	Favorable	Most Favorable
		Hedge Funds—Event Driven	Hedge Funds—Relative Value	
		Hedge Funds—Equity Hedge	Hedge Funds—Macro	
		Private Equity		
		Private Debt		

Source: Wells Fargo Investment Institute, July 3, 2023.

^{*}Alternative investments are not appropriate for all investors. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. Please see end of report for important definitions and disclosures.

Risk considerations

Each asset class has its own risk and return characteristics. The level of risk associated with a particular investment or asset class generally correlates with the level of return the investment or asset class might achieve. **Stock markets**, especially foreign markets, are volatile. Stock values may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors. **Foreign investing** has additional risks including those associated with currency fluctuation, political and economic instability, and different accounting standards. These risks are heightened in emerging markets. **Small- and mid-cap stocks** are generally more volatile, subject to greater risks and are less liquid than large company stocks. **Bonds** are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. **High yield (junk) bonds** have lower credit ratings and are subject to greater risk of default and greater principal risk. The **commodities** markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Investing in a volatile and uncertain commodities market may cause a portfolio to rapidly increase or decrease in value which may result in greater share price volatility. **Real estate** has special risks including the possible illiquidity of underlying properties, credit risk, interest rate fluctuations and the impact of varied economic conditions. **Real assets** are subject to the risks associated with real estate, commodities and other investments and may not be appropriate for all investors.

Sector investing can be more volatile than investments that are broadly diversified over numerous sectors of the economy and will increase a portfolio's vulnerability to any single economic, political, or regulatory development affecting the sector. This can result in greater price volatility.

Alternative investments, such as hedge funds, private equity/private debt and private real estate funds, are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. They entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification, absence and/or delay of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds. Hedge fund, private equity, private debt and private real estate fund investing involves other material risks including capital loss and the loss of the entire amount invested. A fund's offering documents should be carefully reviewed prior to investing.

Hedge fund strategies, such as Equity Hedge, Event Driven, Macro and Relative Value, may expose investors to the risks associated with the use of short selling, leverage, derivatives and arbitrage methodologies. Short sales involve leverage and theoretically unlimited loss potential since the market price of securities sold short may continuously increase. The use of leverage in a portfolio varies by strategy. Leverage can significantly increase return potential but create greater risk of loss. Derivatives generally have implied leverage which can magnify volatility and may entail other risks such as market, interest rate, credit, counterparty and management risks. Arbitrage strategies expose a fund to the risk that the anticipated arbitrage opportunities will not develop as anticipated, resulting in potentially reduced returns or losses to the fund.

Definitions

An index is unmanaged and not available for direct investment.

Bloomberg U.S. Aggregate Bond Index is a broad-based measure of the investment grade, US dollar-denominated, fixed-rate taxable bond market.

Bloomberg U.S. Aggregate 5-7 Year Bond Index is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index, and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities with maturities of 5-7 years.

S&P 500 Index is a market capitalization-weighted index composed of 500 widely held common stocks that is generally considered representative of the US stock market.

Standard & Poor's uses upper-case letters to identify a bond's credit quality rating. 'AAA' and 'AA' (high credit quality) and 'A' and 'BBB' (medium credit quality) are considered investment grade. Credit ratings for bonds below these designations ('BB', 'B', 'CCC', etc.) are considered low credit quality, and are commonly referred to as "junk bonds". Ratings may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

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