

CIO VIEWS: STRATEGY AND PORTFOLIO CONSTRUCTION

A climate change for markets

Bottom line up top:

A ripple builds into a wave. The importance of climate change in investing has grown exponentially in just the past several years. Investors should recognize climate risk as investment risk with the confluence of forces at play. Nuveen's 7th Annual Responsible Investing (RI) Survey found 76% of respondents believe that RI risks and opportunities should be incorporated into investment processes. Over the coming decade, we expect climate volatility to have a cascading effect on the global economy and markets, resulting from a scarcity of energy and food insecurity that may lead to higher rates and even fuel inflation.

Money is "going green." Globally, money is in motion when it comes to bridging the gap between current sources of emissions and energy and where business leaders, politicians and scientists hope to land in the future. In the U.S., the Inflation Reduction Act (IRA) alone will funnel \$370B into "green" infrastructure – including tens of billions of dollars in tax incentives over the coming decade (Figure 1).

Walk the talk. Above and beyond government investment, developing and passing energy-oriented legislation will force the transition from dialogue in the boardrooms to measurable actions. What does this mean for investors? We believe the intersection of climate change, rising prices and proactive investments creates a strong investment thesis, especially for industries heavily involved with current emissions, as well as those redeveloping critical infrastructure.



Saira Malik, CFA

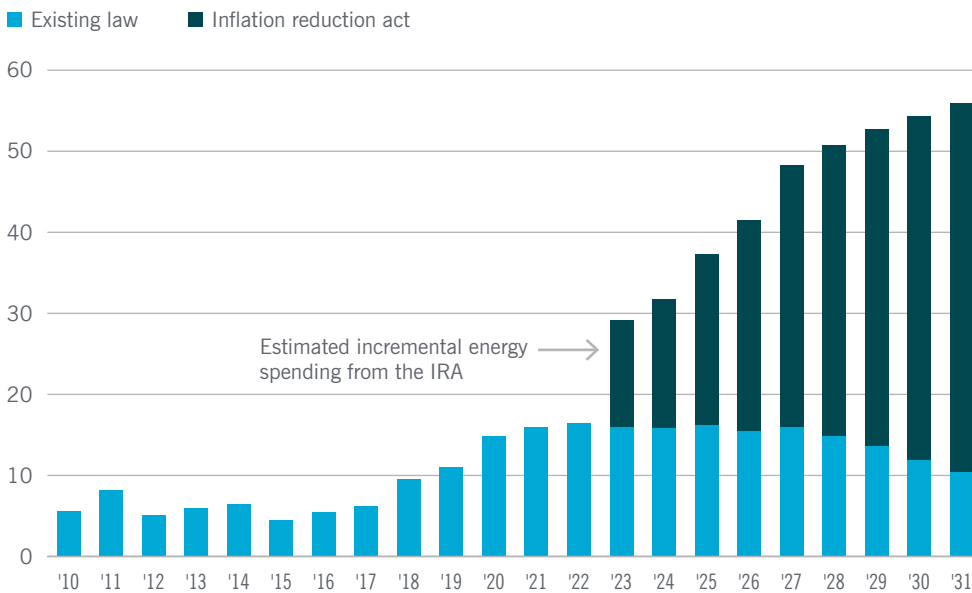
Chief Investment Officer

On behalf of Nuveen's Global Investment Committee

As Nuveen's CIO and leader of our Global Investment Committee, Saira drives market and investment insights, delivers client asset allocation views and brings together the firm's most senior investment leaders to deliver our best thinking and actionable investment ideas. In addition, she chairs Nuveen's Equities Investment Council and is a portfolio manager for several key investment strategies.

FIGURE 1: BY 2031, THE IRA IS ESTIMATED TO TRIPLE U.S. FEDERAL TAX INCENTIVES ON ENERGY

Budgetary effect of federal energy tax incentives (\$ billions)



Data source: U.S. Treasury, Congressional Budget Office, Goldman Sachs Global Investment Research.

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Portfolio considerations:

As the largest climate-related legislation in U.S. history, the IRA should be integral to global decarbonization. The legislation will drive green spending and could provide investors with the potential for long-term opportunities. Industries and companies that invest in green spending should see improved costs of capital and avoid the financial, legal and reputational risks associated with carbon-intensive assets. As a result, we believe investors should consider renewable energy when making decisions involving asset allocation.

Going forward, increased spending on renewable energy should have a profound effect on infrastructure investments. In 2021, 28% of global electricity generation came from renewables, per the International Energy Agency. Renewables are relatively cheap and should become the largest source of electricity by 2025, reaching 38% by 2027. Not only can infrastructure provide defensive positioning in the current economic climate, but it can also serve as a long-term solution for managing climate volatility.

We estimate natural capital offers attractive opportunities to invest in timber and agriculture. Additionally, agriculture is responsible for 20% of all greenhouse emissions, and is extremely vulnerable to climate change and has the largest labor force in the world. Climate factors, in fact, account for 20% to 49% of the variability in crop yields. The

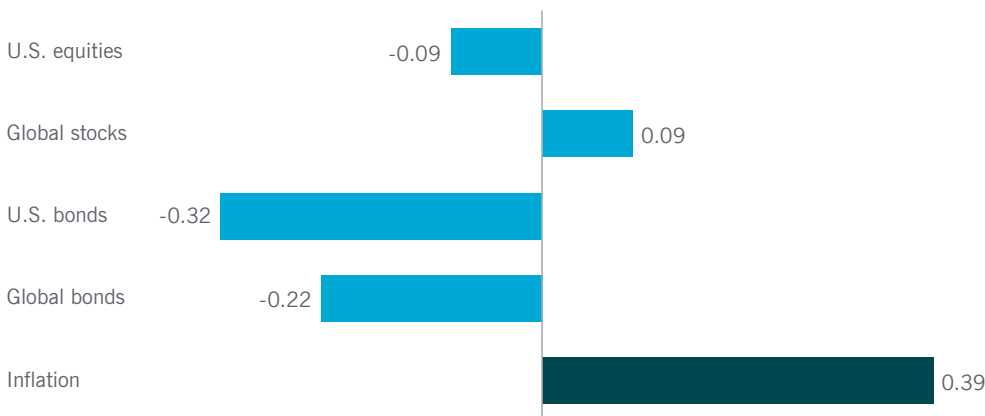
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Global demand for timber is expected to double in 2024 from 2020.

agriculture industry has transformed due to the technology developed to help farmers optimize their use of land, improve water management and create fertilizers that help protect crops from heat and droughts. We expect demand for timber to double in 2024 from 2020. Over the past two decades, the U.S. has underbuilt while experiencing an aging housing supply; both bode well for supporting long-term industry growth. Timberland offers sustainable investing with the potential for competitive risk-adjusted returns, a hedge to inflation and diversification benefits (Figure 2). Within timberland, forestry is evolving with carbon-efficient production, yield-enhancing technologies and carbon credits.

FIGURE 2: TIMBERLAND OFFERS LOW CORRELATION TO OTHER ASSET CLASSES AND A POTENTIAL INFLATION HEDGE

Correlation of select assets vs. U.S. timberland (2002 – 2022)



Data Source: NCREIF, Bloomberg, Federal Reserve Bank of St. Louis, period is from 2002 to 2022. Performance data shown represents past performance and does not predict or guarantee future results. Representative indexes: U.S. timberland (NCREIF Timberland Index); U.S. equities (Russell 3000 Index); U.S. bonds (Barclays US Aggregate Bond Index); Global stocks (MSCI World ex-US Index); Global bonds (Barclays Global Aggregate Bond Index); Inflation (Consumer Price Index for All Urban Consumers: All Items in the U.S. City Average, Index 1982-1984=100, Seasonally Adjusted).

About Nuveen's Global Investment Committee

Nuveen's Global Investment Committee (GIC) brings together the most senior investors from across our platform of core and specialist capabilities, including all public and private markets.

Regular meetings of the GIC lead to published outlooks that offer:

- macro and asset class views that gain consensus among our investors
- insights from thematic “deep dive” discussions by the GIC and guest experts (markets, risk, geopolitics, demographics, etc.)
- guidance on how to turn our insights into action via regular commentary and communications

For more information, please visit nuveen.com.

Endnotes

Sources

All market and economic data from Bloomberg, FactSet and Morningstar.

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please access the glossary on nuveen.com. **Please note, it is not possible to invest directly in an index.**

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Nuveen provides investment advisory services through its investment specialists.

This information does not constitute investment research as defined under MiFID.

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