

Timberland Outlook

Solid Economic Fundamentals and a Growing Need for Climate Solutions

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In Brief

- As a key Natural Capital investment combining climate benefits with strong riskadjusted returns, Timberland valuations increased in 2023 amid solid economic fundamentals and a growing need for climate solutions.
- Demand for Natural Capital assets is expected to grow, with forestland investments providing a leading role in supporting numerous investor objectives including carbon removal, sustainable investing and improving biodiversity while generating long-term strong risk-adjusted returns.
- Cash yields and value increases in 2023 for timberland assets are expected to continue, supported by improving housing and lumber demand, particularly in 2024 H2 and into 2025, in response to improving affordability, as interest rates are expected to gradually decline over the next 18 months.



Timberland In Focus

The timberland asset class finished 2022 with double digit positive returns uncorrelated to other major asset classes. Subsequently, global demand for sawtimber softened in 2023, in large part due to soft economic activity in China as well as rising U.S. interest rates and related affordability challenges. Despite the latter, U.S. housing starts in 2023 were higher than most years over the last decade. The underbuilt supply of homes in the U.S. and other areas of the developed world combined with historically low levels of existing homes on the market led to increased U.S. demand for new home construction. Existing home sales are expected to remain low due to extraordinarily low mortgage rates prior to 2022, reducing the number of existing homes coming to market. Timber supply relative to demand remains balanced or constrained in many wood-consuming regions of the world.

Carbon markets are also continuing to evolve, with growing investor interest and investment in carbon offsets and projects – by both investors and users of offsets. Recent carbon project developments and announcements by high-profile publicly traded timberland REITs continue to support nature-based climate solution opportunities available to timberland investors. We believe demand for carbon offsets is likely to sustainably exceed supply over time, supporting upward value for carbon offsets and carbon assets. Forests provide a material portion of offsets generated in the voluntary carbon markets with carbon prices across markets expected to have strong support in the coming years.1 Working forests also provide investors with other tangible ESG-related opportunities that can come from natural capital investments, ranging from maintaining and improving biodiversity on landscapes to water protection to providing living-wage jobs in rural communities. Such benefits are derived and enhanced through sustainability-focused professional forest management and are verified by meeting third-party forest certification standards.

These highlights underpin our expectation of reliable income returns and capital appreciation in an asset class with inflation-hedging attributes. We anticipate strong cash yields for timberland assets in 2024, and rising prices and yields in 2025 and beyond. All of this comes from an asset, forestland, that is a natural source for additional carbon removal benefits, ESG and nature-based improvements to our world.

Key Themes

Tighter timber supply, strong timberland pricing tempered by moderating interest rates, early-stage carbon opportunities and direct fit for natural capital investing.

Pent-Up U.S. Housing and Timber Demand

New home construction, as well as repair and remodeling - together comprise about 70% of lumber demand. New home construction softened in much of 2023, but not as much as was expected. As mortgage rates continue to moderate, affordability is expected to improve. Prospective home buyers and builders are adjusting expectations with respect to home size and amenity richness in response to affordability challenges. Combined with an anticipated lower interest rate environment in the coming years, housing starts are expected to improve to meet or exceed peak levels experienced during the COVID pandemic period. Pent-up U.S. housing demand among younger homebuyers should continue to spur steady demand through 2025 and beyond, with increased demand in subsequent years² as home prices and mortgage rates continue to moderate. If affordability challenges persist, cash transactions by investors will play an increasing role in the housing sector. In addition, generational wealth transfer may lead to home-buying millennials increasingly relying on parental financial support.

Longer term, a rising proportion of single-family homes (rather than multi-family units) being built will further boost lumber demand per unit.³ Acceptance of engineered wood

³ David B. Keever and Joe Elling, "Wood products and other building materials used in new residential construction in the United States, with comparison to previous studies," APA- The Engineered Wood Association, 2015 and "Analysis and Forecast of the Main End-use Sectors for Wood Products in North America," Forest Economic Advisors, 2021.



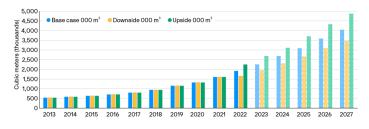
¹ The price of carbon varies globally, set either by governments that tax carbon or markets through emissions trading systems – both currently a varied patchwork. The "social cost of carbon" (currently set by the U.S. administration at USD 15 per ton for analysis and planning purposes) quantifies damages to health, property, agriculture, ecosystems, loss of life and more; some studies suggest the eventual price could be eight times higher. Dr. Sarah Kapnick, "The global carbon market: How offsets, regulations and new standards may catalyze lower emissions and create new opportunities," J.P. Morgan Asset management, October 14, 2021.

² Pent-up demand is approaching four million units due to a decade of underbuilding plus annual housing demand of about 1.5 million housing units; the industry is also seeing the long-anticipated emergence of homebuyers aged 25 to 40 purchasing their first homes.



products, such as cross-laminated timber (CLT), in medium-rise construction globally has increased lumber demand, with projections continuing to increase significantly, as illustrated in the chart below.

Global CLT consumption (construction only)



Source: Forest Economic Advisors (FEA), 2021.

Pandemic-induced supply chain disruptions diminished in 2022-2023, and lumber prices have stabilized at the upper end of historic price norms, well below the extraordinary prices realized in 2020-2021. Meanwhile, lumber production capacity increases across the U.S. South are expected to bring timber supply/demand into better balance in the coming years. Log prices are expected to remain strong in the U.S. West and to improve in the U.S. South, as U.S. lumber production capacity and efficiency improvements through modernizations, expansions and new mill construction are tightening log supply relative to demand in the region.

Increasing Global Recognition that Sustainably Managed Timberlands are a Climate Solution Imperative

Forestland is a natural carbon capture solution and fits in the Natural Capital investment space. The carbon sequestered by trees is quantified, verified, and where there is proven additionality from afforestation or improved and enhanced forest management, then turned into carbon assets (credits) that can ultimately be used to offset greenhouse gas emissions (GGEs) by companies paying asset owners for carbon or by asset owners offsetting their own emissions.

Carbon markets, especially the voluntary markets, are relatively small but growing rapidly in comparison to total annual global emissions. Net-zero commitments by a range of organizations across the globe are significant, and interest in carbon offsets is accelerating. The focus on proven carbon removal projects from forests is making a

significant contribution toward net-zero commitments and is creating a meaningful entry point for investors.

Scarcity of Timberland

Global sawtimber supply constraints moderated in 2023 with slowing demand; however, long-term supply is expected to be increasingly constrained relative to traditional demand drivers. In addition, traditional supply constraints are expected to be further restricted as timberlands are sought for carbon sequestration, increasingly limiting investment opportunities and likely leading to capital appreciation in many regions of the world.

Timberland's Inflation Hedge Characteristics, Particularly Longer Term

A forest's value is not very volatile because biological growth continues during periods of weak pricing. This biological growth also allows professional forest managers to store and increase the value of assets by reducing harvest levels at key points in time. Harvest can be delayed while trees continue to grow in size and value is stored on the stump. 2022-2023 effectively demonstrated the inflation hedging characteristics of this asset class as log prices increased, supporting increased 2022 and 2023 year-end timberland values, particularly where log supply and demand were in balance or constrained.

Timber's Alignment with Global and Corporate Sustainable Investing and ESG policy

Working forests offer an increasingly recognized array of ecosystem co-benefits, such as habitat for endangered species and shelter for much of the world's biodiversity. Forests provide sources of clean water. Importantly, wood-based construction is superior to steel or concrete from a Greenhouse Gas Emissions (GGE) perspective. Working forests align well with social goals, such as opportunities for public recreation. Working forests also provide living wage jobs, reduce urban migration, and improve quality of life in rural communities. Timberland is a key part of the growing Natural Capital investment space.





Technological Advancements

Increasingly, remotely sensed imagery and geographic information system (GIS) innovations are making forest carbon and inventory measurement more cost effective, efficient and scalable and are making carbon markets more widely accessible to large and smaller landowners. Drones are lowering operating costs and improving the safety of forest activities as well as being used for fire detection and monitoring. Other innovations are improving the costs and quality of surveying, reforestation, harvesting and wood products.

Highest Conviction Investment Idea

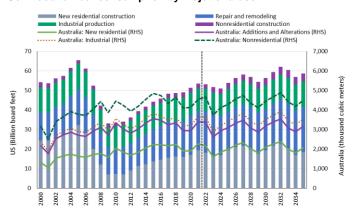
Our highest conviction is for investors to move to include timberland within their investment portfolio allocations, ranging from 1% - 5% or more. Investing in a well-diversified, global timberland portfolio should continue to be attractive as a portfolio diversifier, an inflation hedge, a natural climate solution and an investment with nature-based ESG attributes while also generating income through the sale of wood products.

As demonstrated in 2022 and early 2023, strong demand and improved prices lifted income returns. Future returns are expected to benefit further from tight log supply in the U.S. Pacific Northwest, Australia and Chile and from increasing processing facility investment in the U.S. South. Higher log values and tight log markets should help accelerate capital appreciation and support current market discount rates, particularly in tight log market areas. Carbon monetization, biodiversity, water, recreation and other important attributes can provide an additional overlay of revenue potential. Our current conviction at the asset level for beginning portfolio construction is in North America, particularly the U.S. South, with a build-out in other key forestland regions of the globe.

Looking forward, potential risks include an unanticipated economic slowdown in 2024 that materially dampens housing demand in response to government policy measures that slow economic growth. Housing affordability is currently a risk, although mortgage rates and home prices have already begun to recede. Further declines are likely, improving affordability as government policies to control inflation are no longer needed. Continued expansion of new home construction depends on construction labor availability at costs that do not impact affordability.

Based on the FEA's projections illustrated in the chart below, U.S. lumber consumption and log demand is expected to expand once again in the next 12-18 months, driven by pent-up demand for new home construction as well as repair and remodeling demand, while existing homes available for sale will continue to be constrained. Existing homeowners are reluctant to sell because they cannot replace their existing very low-rate mortgages with something similar, leading to increased reliance on new home construction. Australian lumber consumption is likely to remain elevated after recovering from a recent downturn in new home construction due to higher interest rates compared to prior decades.

Softwood lumber consumption by major end-use



Source: Forest Economic Advisors (FEA); U.S. data as of 12/31/22, Australia data as of 12/31/21.

Next steps

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