



Timberland

WHITEPAPER | OCTOBER 2026

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Timberland is a real asset typically classified within the natural resources segment of an institutional portfolio. The asset class encompasses forested land held primarily for the commercial production of timber, with returns driven by a combination of biological growth, timber pricing, land value appreciation, and management strategy. Unlike most financial assets, timberland benefits from an inherent multi-year biological growth component that accrues independently of market conditions, providing investors a degree of return stability alongside commodity price exposure and real estate dynamics. Historically, the asset class has attracted institutional investors seeking diversification, inflation protection, and long-term capital appreciation. Institutional interest has also been supported by timberland's ownership of a productive biological asset, long investment horizon, and return drivers that differ from those of traditional financial assets.

This primer provides an overview of timberland as an investment, examining the key characteristics, return drivers, and risk considerations relevant to institutional investors. It covers the primary and complementary sources of return, including biological growth, timber pricing, land value, and ancillary revenue streams such as conservation programs and recreational leases. The paper also addresses the operational flexibility inherent to timberland management, the role of the asset class within a broader portfolio context, and the principal risks investors must weigh.

Key Takeaways

- › Timberland is a real asset that derives its return from biological growth, timber pricing, land values, and management strategy. This combination produces a return profile distinct from that of traditional financial assets.
- › Historically, timberland returns have fallen between those of public equities and fixed income. A relatively stable income component and a more variable appreciation component drive overall performance.
- › Timberland has exhibited lower volatility than public equities and modest correlation to both equities and fixed income. These characteristics support its potential role as a portfolio diversifier.
- › Reported risk and correlation figures are influenced by appraisal-based valuations, which tend to smooth returns. As a result, these metrics may understate timberland's underlying sensitivity to market conditions.
- › Timberland performance varies across market environments and depends on regional factors, end-market demand, and asset-level characteristics. Evaluating both the return drivers and the implementation structure is important when assessing the asset class.

Timberland as an Investment

Timberland investing entails the direct ownership of forested land and the standing timber growing on it. At its most fundamental level, an investor is acquiring a biological asset: trees that grow in volume and quality over time, accumulating value independently of market conditions.¹ Income is generated primarily through harvesting, whereby trees are cut and sold to sawmills, paper producers, and other end users, with the timing and volume of each harvest managed in response to tree maturity, market pricing, and portfolio objectives. The underlying land is also a distinct component of the investment, with its value shaped by timber productivity, regional real estate dynamics, and potential alternative uses such as conservation or development. Timberland can be differentiated by forest type, tree species, age, size, geography, and proximity to customers and transportation infrastructure (e.g., sawmills, roads, and ports).

Timberland properties can be classified under two types of forest: plantations and managed sustainable (or natural growth) forests. Plantations are artificially created, often on bare or repurposed ground, and intensively managed with rows of densely planted trees to create a forest intended to be harvested once the trees have reached the desired size and then replanted in a similar manner. Managed sustainable forests are naturally growing forests that may have multiple uses; managers often seek to harvest a small portion each year to allow other trees within the forest to continue to grow and new trees to sprout.

Figure 1

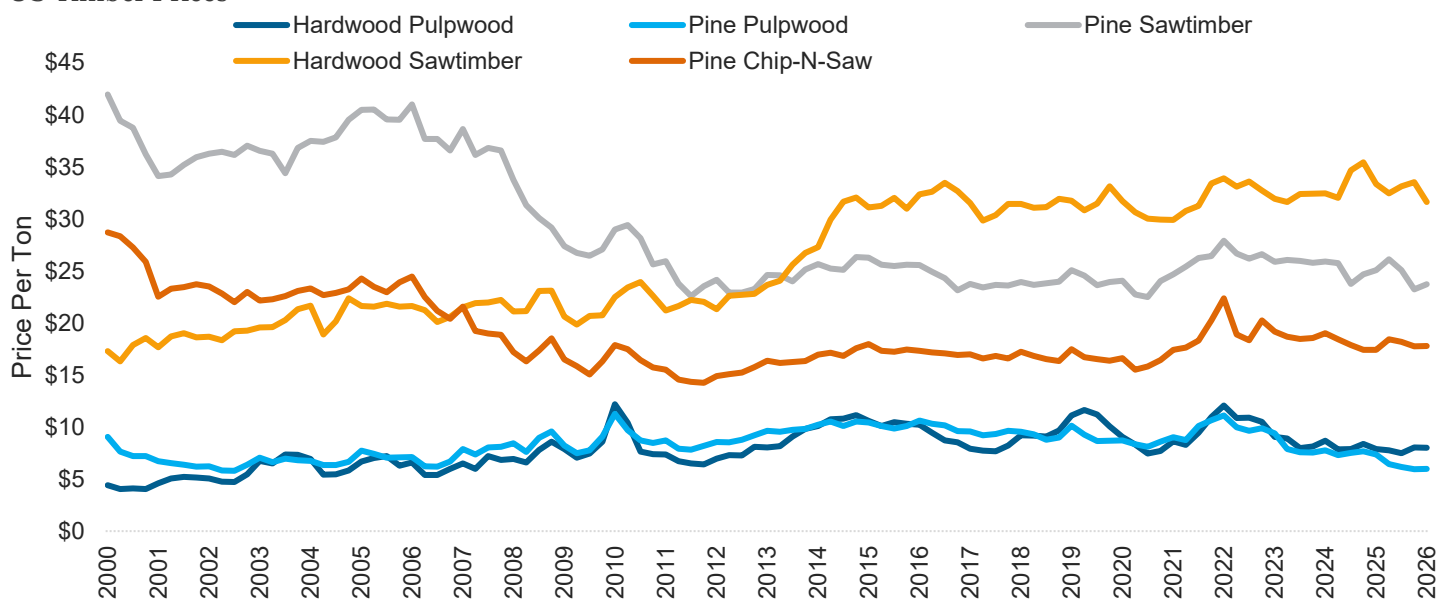
Dominant Species by Region



Source: Food and Agriculture Organization of the United Nations (FAO), Global Forest Resources Assessment 2025. Accessed June 2026. Softwood (conifer) species include Spruce Fir, Douglas Fir, Hemlock, Cedar, Loblolly Pine, and Radiata Pine. Hardwood (broadleaf) species include Alder, Cherry, Maple, Oak, Eucalyptus, and Acacia.

Another distinguishing characteristic of timberland investments is the type of tree, commonly grouped into hardwood and softwood categories. Hardwoods generally come from broadleaf deciduous trees, such as oak, maple, and cherry, and are often associated with higher-value specialty uses such as furniture, flooring, and veneer. Softwoods typically come from coniferous trees, such as pine, fir, and spruce, and are more commonly used in construction lumber, plywood, pulp, and other commodity-oriented wood products. In general, many hardwood species grow more slowly than softwood species, resulting in longer maturation and harvest cycles.

Geography is another key factor in timberland investing, as species composition, growth rates, harvesting cycles, end-market demand, and regulatory environments can vary meaningfully across regions. Timberland is a global asset class, with institutional investments spanning North America, Latin America, Europe, Oceania, and parts of Asia. Many species are region-dependent. For example, the US Pacific Northwest is populated by forests of Douglas fir, hemlock, cedar, and alder trees, while the US South is more suited to loblolly pine species. Conversely, eucalyptus and radiata pine tend to dominate many markets in the southern hemisphere (see Figure 1). These regional differences can result in distinct risk and return characteristics, making geography an important consideration when evaluating timberland investments.

Figure 2**US Timber Prices**

Source: Bloomberg, as of March 31, 2026.

Each timber category has distinct product markets and risks that call for specifically tailored investment strategies. Plantation forest owners often focus on genetically selected pines or eucalyptus trees due to their fast-growing characteristics and low harvesting cost. Prices vary by species and product, so managers must consider the trade-offs involved in allowing trees to grow into a more valuable product versus harvesting at an earlier age and replanting.

Market pricing varies by factors such as tree species and age (see Figure 2). Historically, the highest-price timber product is sawtimber, which comes from the largest trees and is often cut into lumber or veneers, or used as wood-based posts for electrical or telecommunication wires. Pulpwood comes from small to medium trees chipped into small fibers primarily for conversion into paper products. Chip-n-saw refers to medium size trees used to create pulpwood chips or small lumber and plywood with prices typically falling between those of sawtimber and pulpwood. Pulpwood prices have consistently remained lower than those for chip-n-saw and sawtimber for more than 20 years. While pine sawtimber exhibited the highest prices during the early 2000s, its prices declined meaningfully before leveling off around 2012. Conversely, hardwood sawtimber saw price increases from 2012 through 2014 and has generally been the highest-priced product since.

Forest Management and Land Stewardship

Silvicultural (i.e., forest maintenance) techniques are essential to successfully manage a plantation forest throughout the life cycle of a tree.² The science of site preparation, seed planting, thinning and pruning, and even prescribed burning helps

ensure optimal growth and other characteristics to maximize value. Active silviculture management has the potential to lessen both economically driven and physical risks. For example, removing unhealthy trees or the less desirable species from a tract encourages the growth of healthier and more favorable and valuable trees. Tree plantation managers often section forest tracts into different age classes and will actively harvest a section while allowing the rest of the plantation to mature.

Timberland ownership involves long-duration control of land assets that are managed across multi-decade biological cycles. Institutional timberland portfolios are frequently managed under third-party certification frameworks, such as the Sustainable Forestry Initiative (SFI) or Forest Stewardship Council (FSC), which establish standards for sustainable forest management practices.³ As a result, the investment horizon is often aligned with practices intended to preserve the productive capacity of the land over time, rather than maximizing short-term extraction of value from timber inventory. In this context, land management decisions are usually made with consideration to sustain future harvest potential and maintain the integrity of the underlying asset base. This approach differentiates timberland from other commodity-oriented investments, where production is typically not constrained by biological regeneration timelines. The long-term nature of these management practices introduces an additional dimension to timberland investing, reflecting the need to balance current income generation with the preservation of future economic value embedded in both the land and its biological assets.

Return Drivers

Timberland returns are driven by four primary factors: biological growth, timber prices, land values, and management strategy. While managers can influence outcomes through operational decisions, realized returns are also shaped by market conditions.

Biological growth is a central feature of timberland investing. As trees mature, both volume and quality increase, enhancing their economic value over time. Unlike most commodities, timber can generally remain unharvested without deterioration, allowing managers to defer harvest in weaker pricing environments (a practice known as “storing on the stump”). This flexibility provides a degree of stability and distinguishes timberland from other real assets.

Timber prices represent the most variable component of returns and reflect underlying supply and demand conditions. Demand is tied to economic activity in end markets such as construction and packaging, while supply is influenced by regional production capacity and forest management practices. As a result, pricing dynamics can differ across geographies and product types.

Land values contribute to returns through changes in underlying property prices and are driven largely by regional market conditions. Compared to timber prices, land values have generally been less volatile and can provide support to overall returns. In some instances, properties may offer value beyond timber production, where alternative uses or development potential can be realized through asset repositioning or sale.

Management strategy serves as an additional source of differentiation. Outcomes are influenced by decisions related to asset selection, silvicultural practices, and portfolio construction, including diversification across regions and age classes. Harvest timing and exit strategies also play a role, particularly given the flexibility inherent in managing biological growth. In certain cases, active management may also create opportunities to generate value from ancillary revenue streams associated with the underlying land. These may include conservation easements, mitigation credits, recreational leases, and other ecosystem-service-related activities. While such revenue sources have historically represented a relatively small portion of overall timberland returns, evolving environmental markets and natural capital initiatives have increased their prominence within portions of the asset class.

Relationship to Other Real Assets

Timberland is often grouped with other real assets due to its ownership of physical assets, long investment

horizon, and potential for both income generation and capital appreciation. While these asset classes share certain characteristics, the sources of return can differ meaningfully. Many real asset investments derive value from contractual cash flows, property income, regulated revenues, commodity production, or changes in underlying asset values. Timberland, by contrast, combines exposure to land values and end-market demand for wood products with the biological growth of a renewable asset, creating a return profile that differs from many other real asset categories.

As a result, the factors influencing timberland performance may not always align with those affecting other real assets. For example, real estate performance may be influenced by occupancy levels and lease rates, infrastructure assets often derive value from the provision of essential services and associated revenue streams, and farmland returns may be more directly linked to agricultural production and commodity pricing. Timberland returns are shaped by a combination of biological growth, timber markets, land values, and management decisions, resulting in different patterns of income generation and appreciation over time.

These differences have historically contributed to timberland exhibiting performance characteristics that are not identical to those of other real asset categories. Within institutional portfolios, timberland is commonly classified alongside other real assets and natural resources investments, but its return profile reflects a distinct combination of biological, commodity, and land-based exposures. Consequently, timberland is often evaluated in the context of broader real asset allocations while maintaining characteristics that differ from those of traditional real estate, infrastructure, and farmland investments.

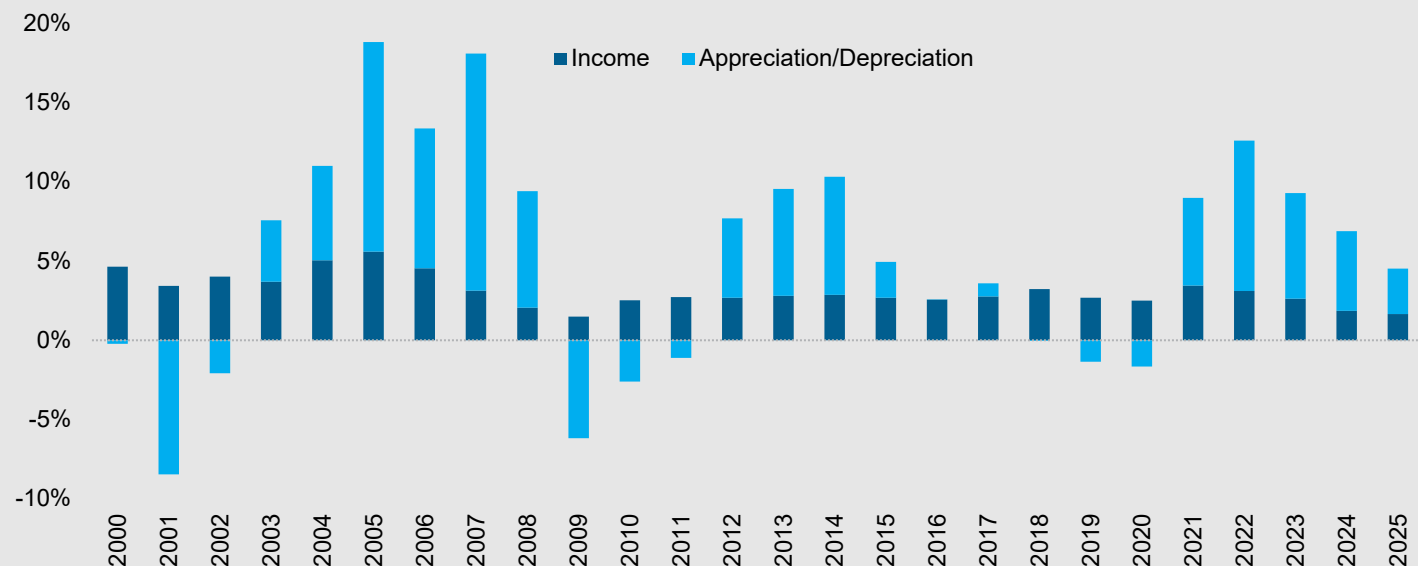
Historical Performance

The return profile of timberland is underpinned by a combination of biological growth, land value changes, and end-market demand for wood products. These drivers translate into two primary components observable in reported investor returns: income and appreciation. Income is generated through periodic timber harvests and has historically exhibited a high degree of stability, typically ranging from approximately 1.5% to 4.5% annually (see Figure 3). In contrast, the appreciation component, which reflects changes in timber prices, land values, and broader economic conditions, has been more variable, with annual returns ranging from approximately -8% to 15%. As a result, fluctuations in total returns have largely been driven by changes in appreciation, while income has provided a more consistent base of performance. This composition is central to understanding the asset class’s observed return stability, as well as its sensitivity to underlying market dynamics.

Over longer time horizons, these components combine to produce a return profile that has been between that of stocks and bonds, with the NCREIF Timberland Index generating an annualized return of approximately 6.1% over the past 20 years, compared to 7.6% for core real estate, 10.5% for US equities, and 3.3% for investment grade bonds.⁴ As with many other asset classes, timberland returns have been cyclical, producing strong returns in the years leading up to the Global Financial Crisis (GFC) and suffering immediately after the GFC (see Figure 4).

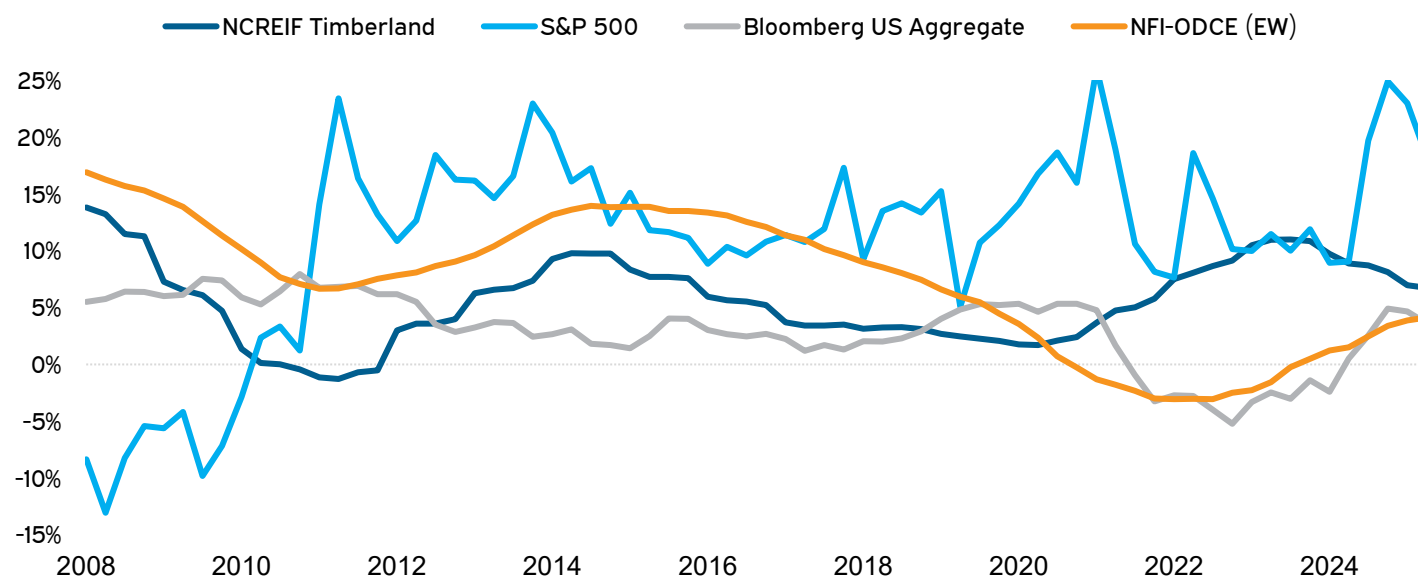
Rolling returns, volatility, and correlation provide additional context for how timberland has behaved across market environments. Observed volatility for the asset class has been low and steady over the past twenty years (see Figure 5), while correlations to equities and fixed income have generally been modest, variable, and quite often negative (see Figure 6).

Figure 3
Timberland Return Components

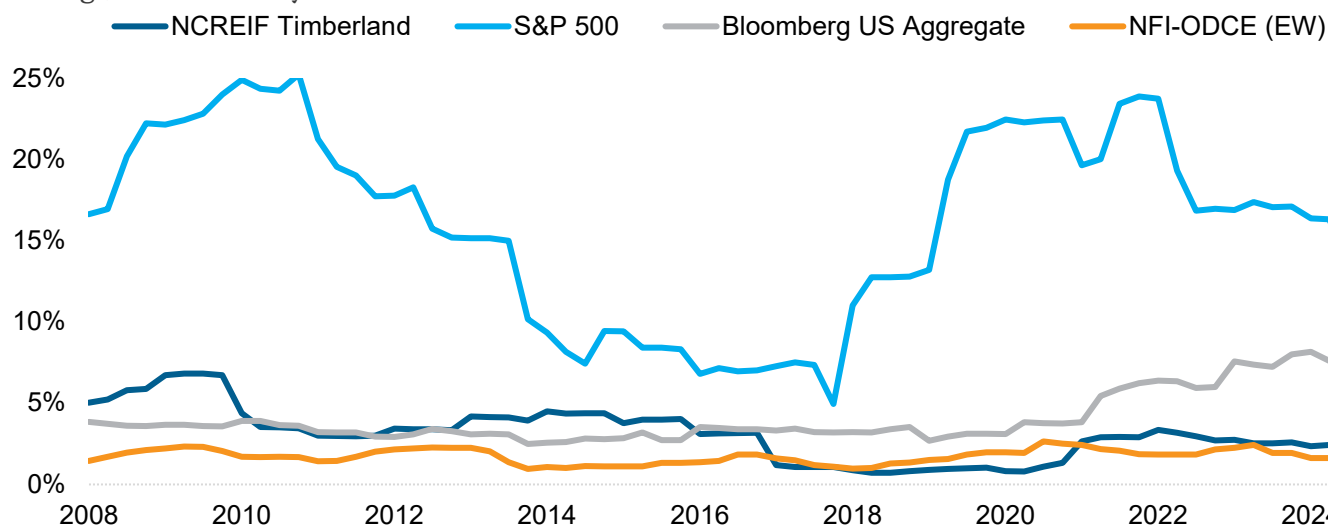


Source: NCREIF, as of March 31, 2026. The NCREIF Timberland Index is a composite of non-levered quarterly performance data of US institutional private market timber properties acquired for investment purposes only. Reflects gross-of-fee returns. NCREIF is the National Council of Real Estate Investment Fiduciaries.

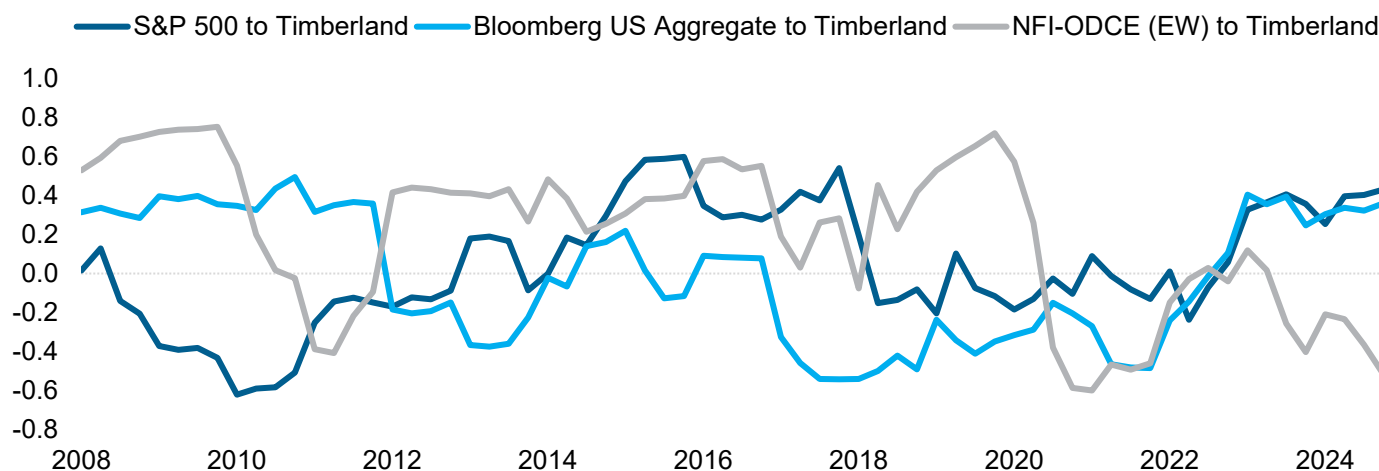
Figure 4
Rolling 3-Year Return of Timberland, Stocks, Bonds, and Real Estate



Source: NCREIF Timberland Index, S&P 500 Index, Bloomberg US Aggregate Bond Index, and NFI-ODCE Index (EW). Data as of March 31, 2026. Reflects gross-of-fee returns. The NFI-ODCE (EW) refers to the NCREIF Fund Index-Open End Diversified Core Equity, equal-weighted.

Figure 5**Rolling 3-Year Volatility of Timberland, Stocks, Bonds, and Real Estate**

Source: NCREIF Timberland Index, S&P 500 Index, Bloomberg US Aggregate Bond Index, and NFI-ODCE Index (EW). Data as of March 31, 2026.

Figure 6**Rolling 3-Year Correlation with Timberland**

Source: NCREIF Timberland Index, S&P 500 Index, Bloomberg US Aggregate Bond Index, and NFI-ODCE Index (EW). Data as of March 31, 2026.

These observed characteristics are influenced, in part, by appraisal-based valuation practices common to timberland and other private real assets. Because timberland assets are not marked to market, reported returns incorporate periodic appraisal adjustments based on comparable transactions in a relatively thin market. As a result, return series tend to exhibit smoother patterns, which can reduce measured volatility and dampen short-term correlations with other asset classes. Consequently, reported metrics may understate the underlying economic sensitivity of timberland to broader market conditions, even as the asset class maintains distinct return drivers relative to traditional financial assets.

Despite exhibiting low observed volatility and correlations with public markets, timberland has not been immune

to periods of market stress. However, it has historically exhibited lower downside participation than public equities across a range of market dislocations. As shown in Figure 7, timberland generated positive returns during several challenging market environments, including the 1987 equity crash (9.2%), the Global Financial Crisis (20.7%), the COVID-19 market shock (0.1%), and the post-COVID rate hiking cycle (20.1%), while the S&P 500 experienced material declines during those periods. Timberland also experienced only modest losses during the dot-com bear market (-1.5%) and the 2011 Eurozone debt crisis (-0.4%), compared to significantly larger declines in public equities. While performance varies across market environments, these results highlight timberland's historically lower reported sensitivity to equity market drawdowns and its potential diversification benefits within a broader portfolio.

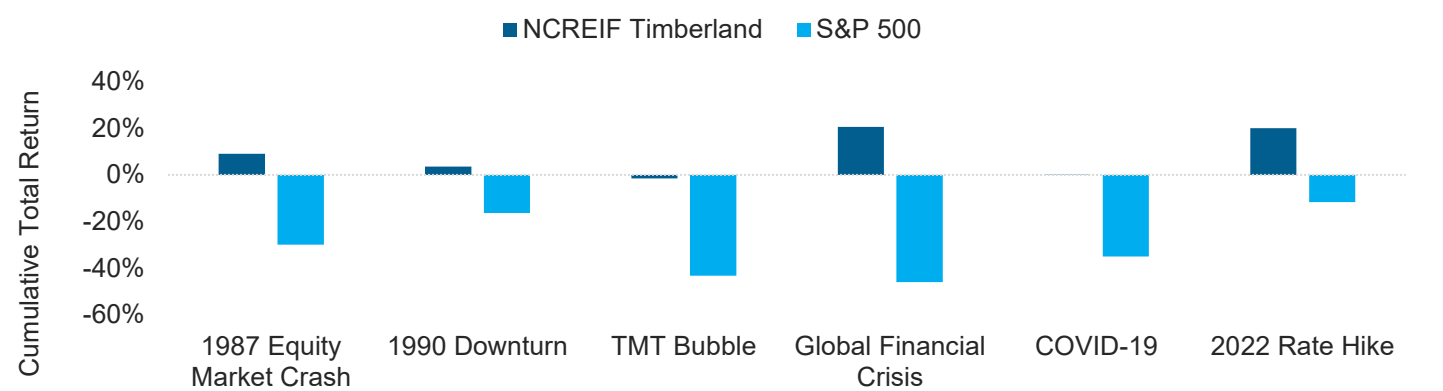
The Global Financial Crisis stands out as a meaningful inflection point in the history of timberland performance. Prior to the GFC, timberland delivered strong performance supported by both income and appreciation. Income returns reached 5.6% in 2005 and 4.5% in 2006, while appreciation peaked at 13.2% in 2005 and 15.0% in 2007, resulting in total returns of 19.3% and 18.4%, respectively, in those years (see Figure 8). However, as housing starts declined from 1.8 million in 2006 to 554 thousand in 2009, income returns fell to 1.5% and appreciation turned negative, resulting in a total return of -4.8% in 2009.

While housing activity gradually recovered, reaching approximately 1.6 million starts in 2021, timberland returns

did not experience a comparable rebound. Income returns remained in a narrow range of approximately 2.5% to 3.5% from 2010 through 2021, well below pre-GFC levels, while appreciation was modest for a prolonged period.

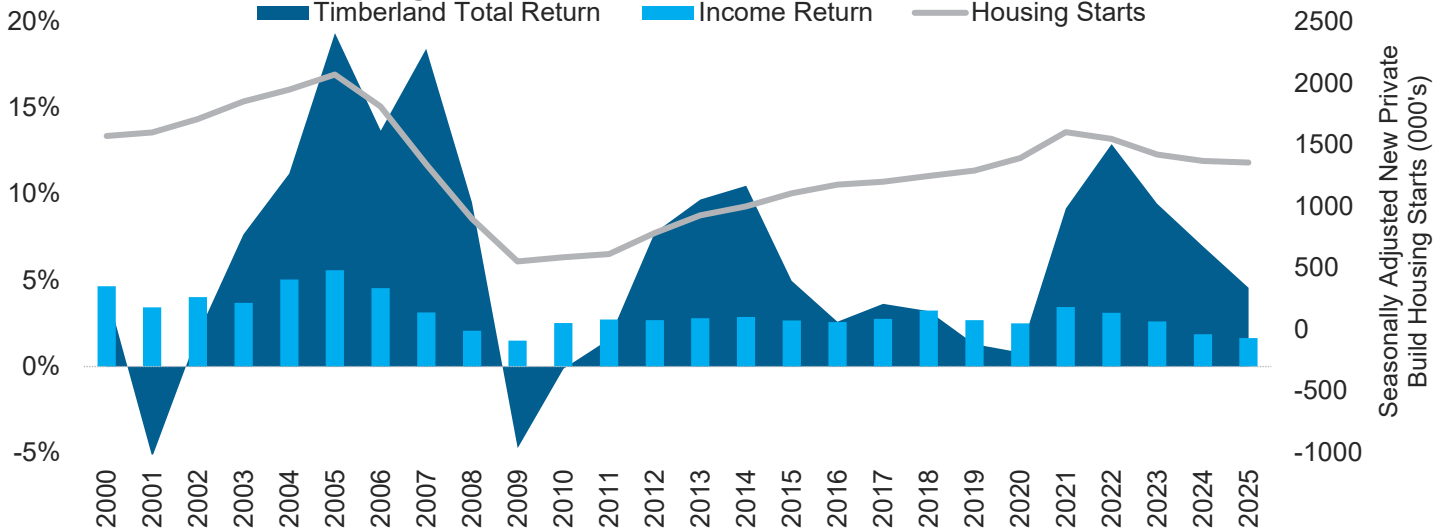
This pattern suggests that while the recovery in housing activity has helped timberland investors, it has not translated into a full recovery in timberland returns. Income, which was a meaningful component of returns prior to the GFC, has remained persistently lower, and the absence of sustained appreciation has resulted in a weaker overall return profile.

Figure 7
Timberland and US Equity Returns During Drawdown Periods



Source: Meketa's Asset Allocation Tool. Returns are cumulative over the period shown. Dates in order: Aug 1987-Dec 1987, Jul 1990-Oct 1990, Mar 2000-Sep 2002, Oct 2007-Mar 2009, Feb 2020-Mar 2020, Jan 2022-Oct 2023. Indices used: NCREIF Timberland Index and S&P 500 Total Return Index. This measurement window differs from the calendar-year period shown in Figure 8 and is not directly comparable.

Figure 8
Timberland Returns and Housing Starts



Source: NCREIF Timberland Index and Federal Reserve Economic Data (FRED), as of March 31, 2026.

An Inflation Hedge?

Timberland has historically been viewed by some investors as providing some degree of inflation protection, as timber prices and underlying land values may adjust with changes in the general price level. The relationship, however, is not consistent and depends on the underlying drivers of inflation, including economic growth, supply conditions, and interest rate environments.

For example, in periods where inflation is associated with stronger economic activity, demand for wood products may support timber pricing and harvesting. In other environments, particularly those characterized by tighter financial conditions or weaker end-market demand, pricing and income may be less responsive. For example, timberland may be less effective as an inflation hedge during a period of supply-shock induced inflation where timber is not among the directly impacted commodities.

Inflation can take multiple forms, and timberland's response varies accordingly. In demand-driven inflationary environments, where economic growth and construction activity are strong, timberland may benefit from increased demand for wood products, supporting both pricing and harvesting activity. In contrast, cost-push or supply-driven inflation, particularly when accompanied by rising interest rates or tighter financial conditions, may dampen construction activity and reduce demand for timber products, limiting the asset class's ability to provide inflation protection. Additionally, inflation associated with higher discount rates can negatively affect land valuations, offsetting any potential benefit from higher timber prices.

As a result, timberland may exhibit inflation-sensitive characteristics on a conditional basis. That is, its effectiveness as a hedge varies depending on the broader economic environment and the relative contribution of its underlying return drivers.

Risks

Besides the economy-driven fluctuation of timber prices and land values, there are several special risks to investing in timberland. Fortunately, many timberland risks may be partially mitigated by diversification and active silviculture management. The main risks are outlined below.

Political and Regulatory Risk

Political and regulatory risk can take a variety of forms. In the US, environmental concerns and changing government policies mean that enacted regulations (e.g., the Clean Water Act and Endangered Species Act) can serve to restrain or prohibit several timberland management activities, including

the harvesting of certain timberlands. Tariffs may also affect cross-border trade flows and lumber pricing, which can influence realized prices for timberland owners and processors.⁵ Other risks include the threat of nationalization or expropriation, as well as weak regard for property rights and the rule of law, particularly in emerging and frontier markets.

Liquidity Risk

The marketplace for timberland can be characterized as "thin," with few buyers and sellers at any given time. This can lead to wide disparities among buyers' and sellers' expectations for prices, potentially frustrating transactions. Since timber transactions may comprise several non-contiguous tracts, transactions can be complex, resulting in a lengthy process. All of these factors result in substantial illiquidity for investors. As a result, timberland is generally illiquid, and investments in the asset class often require a holding period extending beyond 10 years.

Currency Risk

Timberland is a global industry, with different regions and climates producing various dominant species. Transactions typically occur in the currency of the country where the timberland is located, which can introduce currency risk. Diversifying exposure across regions can help mitigate exposure to any single currency. Some managers may also elect to delay harvesting and wait for more favorable currency environments, or to hedge their currency exposure for select assets.

Physical Risk

Timberland is subject to losses from natural and human-caused events such as fire, insect and vermin infestations, disease, inclement weather, and theft. Unsurprisingly, the degree of physical risk varies considerably by geographic region, as some areas are more prone to certain diseases, forest fires, etc. These risks can be somewhat mitigated through proper silviculture management or insurance. However, perhaps the best mitigant against physical risks is portfolio diversification.

Valuation Risk

Because timberland assets are generally appraised rather than continuously traded, reported valuations may not fully reflect prevailing market conditions. During periods of rapidly changing economic conditions, appraised values may adjust more slowly than public market prices, which can affect reported return, volatility, and correlation metrics. As a result, observed performance characteristics may differ from the underlying economic experience of owning timberland assets.

Leverage

Leverage allows a timberland manager to increase exposure to timberland assets relative to the underlying equity capital, magnifying both potential gains and losses. In doing so, leverage introduces an additional layer of risk, as returns on invested capital become more sensitive to changes in asset values and income generation. While leverage can enhance returns in favorable market environments, it increases downside risk and return volatility, particularly during periods of market stress when asset values decline or liquidity becomes constrained. In extreme scenarios, the inability to refinance debt or access capital markets may force asset sales at unfavorable valuations.

In addition, the need to service borrowing costs requires a minimum level of generated income. For example, following the Global Financial Crisis and US housing downturn, construction and remodeling activity declined materially, reducing demand and prices for timber products. In this environment, some leveraged timberland investments experienced pressure on cash flows, as debt service obligations coincided with the need to harvest in weaker pricing conditions.

Investment Universe

Institutional investors have been allocating to timberland since at least the 1990s. The asset class grew rapidly in the early 2000s, but following the GFC and the accompanying US housing downturn, fundraising meaningfully slowed and generally remained below the peak levels observed in the mid-2000s. As a result, timberland investments represent a relatively small portion of the broader natural resources opportunity set, though fundraising activity has increased in recent years. The number of managers has also narrowed with an average of seven closed-end funds raised per year.⁶

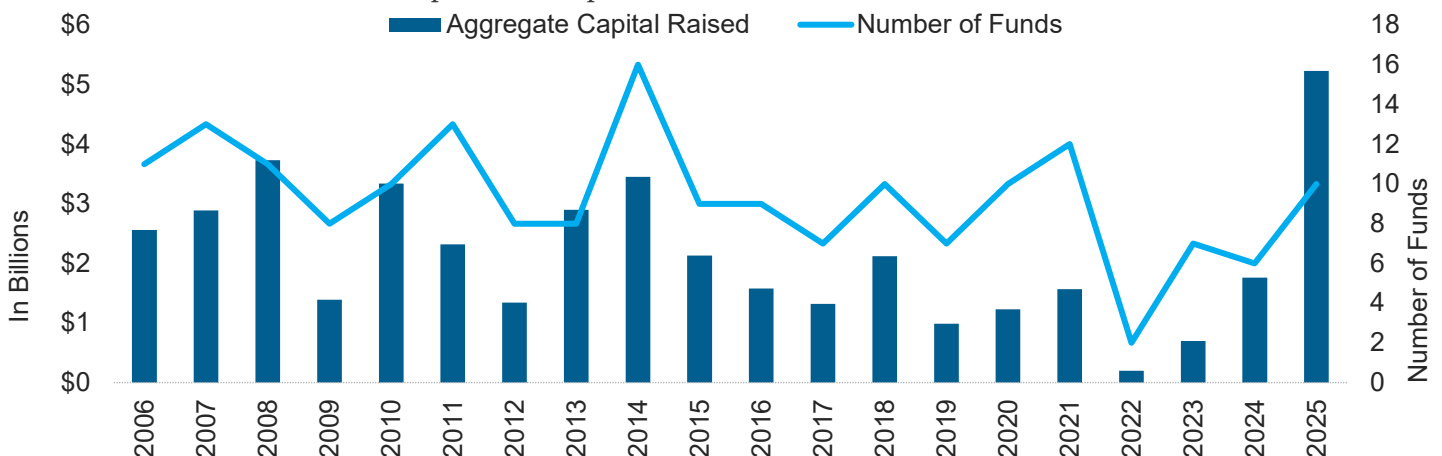
This evolution reflects broader structural changes in ownership and capital formation within the asset class over the past few decades. Timberland investment shifted from vertically integrated forest product companies to institutional ownership structures managed by Timberland Investment Management Organizations, which facilitated greater participation by pension funds and other long-term investors. Over time, this transition supported the institutionalization of the asset class but also increased its sensitivity to capital market conditions and fundraising cycles.⁷

Another contributor to the decline in the number of funds has been increased offerings of evergreen and open-end vehicles to extend portfolio terms and avoid forced selling of timberland properties. The evergreen model has provided some stability to timberland managers but has changed the composition of the investable universe for institutional investors.

Relative to private equity, real estate, and infrastructure, timberland remains a niche institutional asset class with a limited manager universe, comparatively low transaction volume, and fewer investable opportunities. The asset class has historically attracted a smaller share of institutional capital, reflecting the finite supply of investable timberland properties, long asset holding periods, and specialized expertise required for acquisition and management. As a result, fundraising activity, manager formation, and secondary market transactions have generally remained below those of larger private market asset classes, contributing to a relatively concentrated investment universe.⁸

Figure 9

Timberland Closed-End Fund Capital Raised per Year



Source: Preqin, as of March 31, 2026. Represents closed-end funds raised for each vintage year.

Implementation and Strategic Allocation

Institutional investors typically hire Timber Investment Management Organizations (TIMOs) to manage their timberland investments. A TIMO is generally engaged to act in the interest of the investor to identify, analyze, acquire, and manage timberland properties.

Investors may acquire timberland through both public and private investment vehicles, each of which exhibits different return characteristics. Public investment vehicles, including timberland real estate investment trusts (REITs), are more likely to exhibit equity-like volatility and be correlated with the stock market.⁹ Private investment vehicles, on the other hand, are expected to exhibit lower observed volatility and correlations with equity markets (as noted above).

As a private investment, timberland provides investors with direct exposure to the biological growth, timber pricing, and land value characteristics that underlie the asset class. Public access, by contrast, remains limited and is primarily available through a small number of publicly traded timberland REITs, including Weyerhaeuser and Rayonier. Following the January 2026 merger of Rayonier and PotlatchDeltic, public market exposure has become increasingly concentrated.¹⁰ Public timberland vehicles may exhibit different risk and return characteristics than private timberland investments due to factors such as public market pricing, capital market access, and corporate structure. In addition, REITs are generally required to distribute a substantial portion of taxable income to shareholders, which may increase reliance on external sources of capital to support growth initiatives.

Strategy Spectrum

Investment approaches may be differentiated based on their underlying return objectives, level of risk, and the relative importance of timber production versus other sources of value creation. While all strategies within the asset class are generally linked to biological growth and land ownership, the emphasis placed on these factors can vary meaningfully across approaches.

At one end of the spectrum, core strategies are typically focused on stable, long-term biological growth and income generation from timber harvesting. These approaches emphasize asset quality, geographic and species diversification, and risk management. Returns

are primarily driven by biological growth, disciplined harvesting practices, and gradual appreciation in land values. As a result, core strategies are generally structured to provide consistent, lower volatility returns over extended holding periods. They often rely on established markets, mature timber inventories, and proximity to end-use demand centers, which may support predictable cash flow generation and operational stability.

Value-added strategies often incorporate a greater degree of active management. These approaches may seek to enhance returns through operational improvements, optimization of harvest timing, or the selective monetization of specific land characteristics. Managers may evaluate opportunities to improve productivity through silvicultural practices, reposition assets within regional markets, or generate additional income through complementary land uses. These strategies typically involve a higher degree of management involvement and may place greater emphasis on execution, as returns are more dependent on asset-level decision-making.

At the more opportunistic end of the spectrum, strategies may focus on identifying and monetizing non-traditional sources of value. These may include land repositioning, alternative land uses, or exposure to emerging revenue streams that extend beyond traditional timber production. Such strategies often involve greater exposure to execution risk, market timing, and external demand drivers, including those related to real estate, infrastructure, or regulatory developments. Returns in these cases may be less dependent on biological growth and more reliant on the successful realization of specific asset-level opportunities.

The distinction among these strategies reflects varying degrees of reliance on timber production relative to other value drivers, as well as differing expectations with respect to risk, return, and liquidity. Understanding this spectrum allows investors to construct portfolios and better align timberland allocations with their broader portfolio objectives and risk tolerance.

Vehicle

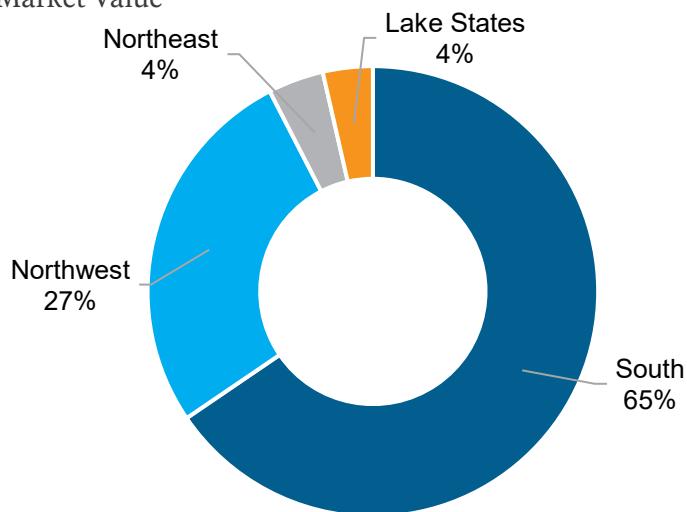
There are two main types of private commingled timberland investment vehicles: closed-end and open-end structures. Closed-end funds, which control the timing and amount of investor contributions and distributions, have historically been the most common vehicle, though the use of open-end and evergreen structures has increased in recent years. Closed-end vehicles generally have 10-to-15-year terms with two-to-three-year extensions at the end of the term. The fees on private partnerships generally include both a management fee of approximately 1.0% and a performance-based fee. The performance fee typically involves a preferred return and a carried interest of up to 20%.

Open-end and evergreen vehicles typically offer lower fees and better (if contingent) liquidity. Management fees tend to be less than 1.0% and carried interest is reduced or sometimes non-existent. Like closed-end funds, open-end funds are typically valued quarterly. Similar to open-end real estate and infrastructure funds, most include lock-up provisions and the potential for redemption queues.

Closed-end timberland funds are typically funded over multiple years. Thus, returns typically exhibit a “J-curve” similar to other private market investments, though it is often less pronounced given the income generated from timberland assets. Mature open-end funds may mitigate or eliminate the J-curve and generally avoid blind-pool risk. However, liquidity is dependent on the availability of new capital. Redemptions are typically funded through incoming subscriptions; as a result, periods of limited fundraising may lead to delayed redemptions or, in some cases, asset sales to meet withdrawal requests.

Figure 10

NCREIF Timberland Index Geographic Composition by Market Value



Source: NCREIF Timberland Index Quarterly Detail Report, as of March 31, 2026.

Larger investors who are able to make sizable commitments (e.g., more than \$100 million) to timberland may also be able to access the asset class via a separately managed account (SMA). SMAs often have lower negotiated fees and will allow an investor to build a customized portfolio of directly owned properties with the ability to control the portfolio strategy and exit timing.

Benchmarks

The NCREIF Timberland Index (NTI) is often used as a proxy for benchmark purposes. The NTI is an index of unlevered core US timberland returns as reported by timber fiduciaries. The properties within the NTI represent a meaningful portion of the investable universe. However, a limited number of participants report to the index. Furthermore, the NTI is not investable and does not account for management fees and operational expenses. Lastly, the NTI is not constructed in a way to be directly comparable to most TIMO strategies (e.g., the NTI is unlevered, while many TIMOs employ some degree of leverage).

The composition of the NTI reflects the geographic distribution of institutional timberland assets within the United States. As of the first quarter of 2026, the index includes approximately 450 properties representing \$31.7 billion in market value and over 13.5 million acres. The index is highly concentrated in the US South, which accounts for approximately 65% of total market value, followed by the Pacific Northwest at roughly 27%. The Northeast and Lake States represent comparatively small portions of the index, each comprising less than 5% of total market value. These regional differences reflect underlying variations in species composition, timber growth cycles, and end-market exposure, and result in NTI performance being meaningfully influenced by regional concentration.

As described earlier, the private universe of timber funds is limited, with relatively few funds raised in any given year. While certain private market benchmark providers maintain composites composed of closed-end timberland-related funds, the number of dedicated timberland funds included is limited relative to larger private market asset classes, presenting challenges to using these composites as a representative sample of the broader timberland asset class.¹¹ As a result, many investors continue to rely on the NCREIF Timberland Index as a reference point when evaluating timberland performance.

Conclusion

Timberland is a distinct real asset whose returns are driven by biological growth, timber pricing, land values, and management strategy. This combination has historically produced a return profile that falls between those of public equities and fixed income, with a relatively stable income component and a more variable appreciation component tied to broader market conditions. These characteristics have contributed to lower observed volatility and modest correlation to traditional asset classes, supporting timberland's role as a potential diversifier within a broader portfolio. However, reported returns are influenced by appraisal-based valuation practices, which tend to smooth performance and may understate the underlying variability and co-movement of the asset class.

Timberland's behavior across market environments reflects the interplay between biological growth, harvest flexibility, and reduced sensitivity to short-term public market movements, while remaining dependent on regional conditions, end-market demand, and asset-level factors. Together with the structure of the investable universe and the range of implementation options available, these considerations underscore the importance of evaluating both the underlying return drivers and reporting dynamics when assessing timberland's role within a diversified portfolio. Finally, timberland's scale warrants perspective. Although institutional interest in the asset class expanded quickly in the early part of this century, capital formation has since moderated, leaving timberland a comparatively small and specialized component of the broader natural resources universe.

Appendix

Types of Conservation Income

- › **Mitigation Bank Credits:** Mitigation banks were created to protect or enhance wetland or stream ecological systems in ways that can help offset impacts of development projects within a certain area. Timberlands with damaged wetlands or streams can be restored to such levels that they receive bank mitigation credits awarded by the regulatory authorities, the US Army Corps of Engineers (USACE), and the US Environmental Protection Agency (EPA). Awarded credits can then be sold to developers within the approved region that have disturbed wetlands or streams with construction projects. The value of the credits is determined in each market based on

supply and demand and the number of issued credits is determined based on the success and timing of restoration.

- › **Conservation Bank Credits:** Similar to mitigation banks, conservation bank credits are awarded based on net gains in habitat restoration and can be used to offset losses of endangered species and their habitats. These credits are regulated by the US Fish and Wildlife Service (USFWS) and can be sold in a similar fashion as mitigation credits.
- › **Conservation Easements:** This is a perpetual voluntary legal agreement that encumbers or restricts the rights of a landowner under the easement. The restriction typically limits the use of land from development, subdivision, public recreation, etc. In some cases, the restrictions allow sustainable timber harvesting activities. In exchange, a property owner receives a lump-sum payment for the easement and may collect modest income from the harvesting.
- › **Planting Incentives:** Many states have developed programs to ensure the sustainability of natural and plantation forests with programs incentivizing the replanting of trees after harvesting. This ensures the land continues to be maintained as forest and not converted into a different use.

Sustainability in Timberland Management

- › **Third-Party Certification:** Institutional timberland portfolios are commonly certified under independent sustainable forestry standards, which establish requirements for harvest practices, reforestation, water quality, biodiversity protection, and stakeholder engagement, and are verified through periodic third-party audits. The most widely used frameworks are the Forest Stewardship Council (FSC), the Sustainable Forestry Initiative (SFI), and the Programme for the Endorsement of Forest Certification (PEFC). Globally, approximately 177 million hectares are FSC certified and approximately 296 million hectares are PEFC certified, while more than 350 million acres (140 million hectares) in North America are certified to the SFI Forest Management Standard.¹² Certification may support access to certain end markets, as manufacturers and retailers increasingly require documented chain-of-custody sourcing.

- › Sustainable Yield and Reforestation – Sustainable forest management seeks to align harvest levels with the biological growth rate of the forest so that the productive capacity of the land is maintained over successive rotations. Managers typically stratify holdings by age class, harvest a portion of the inventory each year, and replant or regenerate harvested stands, which preserves future harvest potential and the value of the underlying asset base. This practice differentiates timberland from extractive natural resource investments, where production is not constrained by biological regeneration timelines.
- › Carbon Sequestration and Carbon Markets – Forests absorb and store carbon as they grow, and landowners may monetize that storage by deferring harvests or increasing stocking above a business-as-usual baseline and selling verified credits into the voluntary carbon market. Improved forest management protocols typically require project terms of several decades and periodic third-party verification, which constrains future harvest flexibility.¹³ Academic work estimates that at a carbon price of roughly \$20 per metric ton, forest carbon can add approximately 115 basis points to the return of an afforestation investment, with a smaller contribution where only incremental sequestration is credited.¹⁴ Realized value remains dependent on carbon pricing, credit integrity and verification standards, and the willingness of the owner to encumber the asset.
- › Biodiversity, Water, and Habitat Stewardship – Sustainable management practices also address non-timber attributes of the property, including riparian buffers, wetland protection, road construction and maintenance standards, prescribed burning, invasive species control, and the conservation of habitat for sensitive species. These practices are often embedded in certification requirements and state best management practices, and they may reduce regulatory and physical risk while supporting the long-term productivity of the land.

End Notes

- ¹ The growth cycle varies by species and is typically more than a decade. While there is a theoretically optimal cycle for harvesting and replanting, this varies by species, and by market conditions (e.g., timber prices).
- ² Silviculture is the science and practice of establishing, growing, managing, and regenerating forests to meet specific objectives, such as timber production, wildlife habitat, biodiversity conservation, or ecosystem health.
- ³ Source: Sustainable Forestry Initiative (SFI); Forest Stewardship Council (FSC). Accessed June 2026.
- ⁴ Source: NCREIF Timberland Index, S&P 500 Index, Bloomberg US Aggregate Bond Index, and NFI-ODCE Index (EW). Data as of March 31, 2026. These figures reflect gross-of-fee index returns; actual investor returns would be reduced by fees, which vary by vehicle and manager.
- ⁵ Source: US Department of Agriculture; US Forest Service; industry trade analysis of lumber markets. Accessed June 2026.
- ⁶ Source: Preqin, timberland closed-end fund fundraising data (number of funds and aggregate capital raised), as of March 31, 2026.
- ⁷ Source: US Forest Service, Forest Inventory and Analysis; institutional timberland ownership literature. Accessed June 2026.
- ⁸ Sources: Preqin, Natural Resources 2025: Assets Under Management and Fundraising Update; NCREIF Timberland Index Quarterly Detail Report, 1Q 2026. Accessed June 2026.
- ⁹ REITs are real estate investment trusts. The type of REITs referenced here are publicly traded vehicles that are priced daily.
- ¹⁰ Source: Rayonier Inc., Rayonier and PotlatchDeltic Announce Closing of Merger of Equals, January 30, 2026; Internal review of publicly traded timberland REITs as of June 2026. Rayonier announced in March 2026 that it would keep the Rayonier name after the merger.
- ¹¹ Sources: Cambridge Associates via IHS Markit, Cambridge Timber Composite; Preqin Natural Resources database; MSCI Private Asset Indexes; NCREIF Timberland Index Quarterly Detail Report, 1Q 2026. Accessed June 2026.
- ¹² Forest Stewardship Council, "Facts & Figures," fsc.org, accessed August 2026; PEFC, "PEFC Global Statistics, September 2025," pefc.org; Sustainable Forestry Initiative, "Key Facts About SFI," forests.org, accessed August 2026.
- ¹³ American Carbon Registry, "Improved Forest Management," ACR Primer, accarbon.org, accessed August 2026.
- ¹⁴ Mei, B. 2023. "Carbon offset as another driver of timberland investment returns in the United States." *Journal of Forest Business Research* 2(1): 1-19.

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