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Global Timberland Portfolio Perspective

Carbon evolving into a disciplined capital enhancer, not a hype-driven overlay

Michael Barbara
Executive Director | Director of Australasia
Campbell Global, a J.P. Morgan company
michael.barbara@campbellglobal.com

Timberland: Then and Now

Why institutions were attracted to timberland (historically)

- **Diversifying real asset returns**: low correlation to traditional equities and credit; return drivers tied to biological growth and land values rather than corporate earnings and broader market forces.
- **Inflation sensitivity**: timber and land prices have tended to move with replacement costs and inflation-linked end markets (housing, packaging), supporting real-return objectives.
- **“Biological growth” as a built-in compounding engine**: trees keep growing regardless of market cycles, creating the option to defer harvest and sell into stronger price environments (a form of embedded optionality).
- **Income + capital appreciation**: mix of harvest cash yield and longer-term land appreciation / higher-and-better-use optionality.
- **Perceived downside preservation**: tangible asset, finite land base, and the ability to manage harvest timing to smooth cash flows through market cycles.

How the rationale has shifted over the past ~10 years

- **From “timber + land” to “natural capital”:** timberland is increasingly underwritten as a platform that can produce multiple ecosystem-linked revenue streams, not just timber and land appreciation.
- **Decarbonisation as a capital allocation driver**: more institutional mandates explicitly target climate alignment—timberland can support portfolio-level decarbonisation via sequestration and wood substitution benefits.
- Carbon credits moved from optional upside to a more explicit underwriting line item (selectively):
    - Greater focus on when carbon is bankable (durable rules, credible MRV, enforceable contracts) versus when it remains contingent upside.

How Carbon Was Once Considered vs. How It Is Considered Now

Contingent upside, speculative asset

- Carbon was often excluded from **base case underwriting** and treated as speculative, meaning revenues were not reliably counted in return projections and depended on uncertain policy or market conditions.

Core, underwritten cash-flow asset

- Carbon is integrated into the **return stack** alongside timber income, land appreciation, and HBU optionality, reflecting its growing role as a monetizable asset **where policy durability and credit integrity are robust**.

Governance shift to investable value

- **Conservative baselining, rigorous monitoring, and third-party verification are essential** to ensure carbon credits are credible, repeatable, and auditable, helping mitigate risks related to permanence, leakage, and policy reversals.

Repeatability, controls, auditability required

- This demand for discipline and transparency **distinguishes investable carbon from contingent upside**, aligning carbon's role with institutional standards for risk management and portfolio construction.

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Challenges of Carbon Price Forecasts

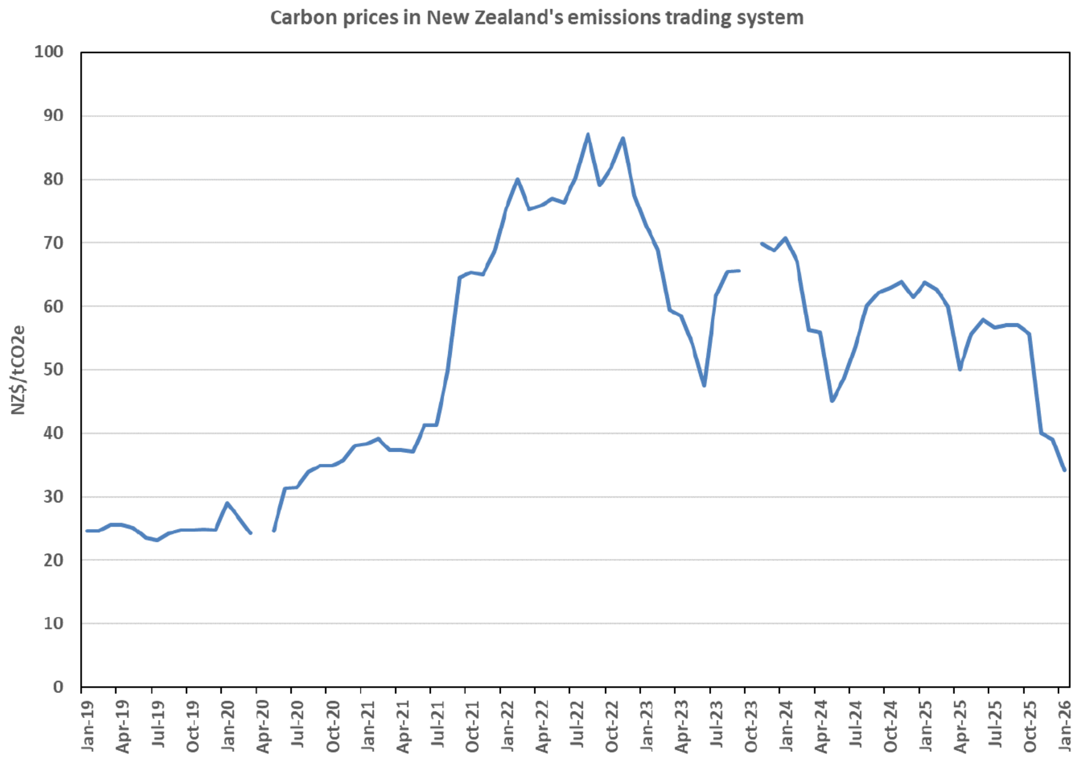
Forecasting Carbon Prices: Sensitivity to Policy

- **Carbon price forecasts are inherently challenging** due to the high sensitivity of prices to **policy changes, regulatory shifts, and evolving market integrity standards**.
- Even minor adjustments in government policy or regulatory frameworks can lead to **significant volatility in carbon pricing**, making long-term projections unreliable.
- This uncertainty is compounded by the fact that **carbon markets are shaped by political decisions**, which can be unpredictable and subject to reversal, especially in regions with less stable governance.

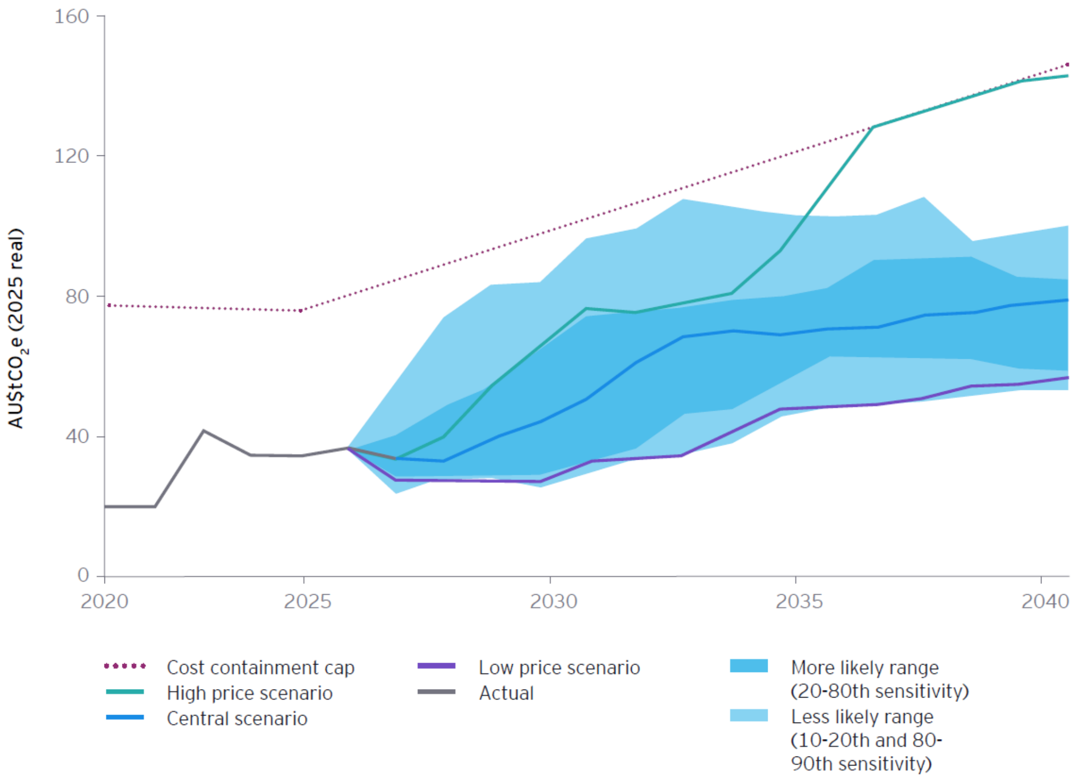
Monetization Depends on Policy Durability and Credit Integrity

- **Reliable monetization of carbon credits requires durable policy frameworks and robust credit integrity**.
- The strength and longevity of regulatory support, as well as the maturity of verification standards, are critical factors that determine whether **carbon revenues can be underwritten as part of a portfolio's base case**.
- These factors vary significantly across regions and project types.
- For example, regions with **established and stable policy environments, such as Australia and New Zealand**, offer greater confidence in carbon price forecasts and credit quality, while regions with **fragile or evolving policies** present higher risks and less predictable outcomes.

Challenges of Carbon Price Forecasts contd…



Source: AgriHQ, accessed January 2026



Notes: All scenarios assume that market participants have reasonably good foresight of future supply and demand. While the scenarios are modelled on the basis of current policies, with no changes to SGM and ACCU settings, the high price scenario may be interpreted as reflecting new ACCU demand after 2030 from activities or facilities not currently covered by the SGM. See Supporting Information for more details.
Source: EY Net Zero Centre analysis using EY CARBON-VIEW (AUS) model.

Source: A time for clarity and confidence: Australian Carbon Market Outlook 2026, available online as of 03/02/2026
https://www.ey.com/en_au/insights/sustainability/a-time-for-clarity-and-confidence,

Forestry Carbon Projects by Market

Dimension	Australia	New Zealand	North America	Voluntary Market
Market type and demand source	Government-compliance style demand via national policy mechanisms; regulated purchasing and safeguard obligations; policy-anchored demand	National emissions trading framework; forestry removals interact with compliance demand; ETS-linked demand and prices	Mix of sub-national compliance (limited) and large voluntary footprint; demand dispersed across corporates and intermediaries	Driven by corporate claims/targets and buyer preferences; sentiment- and reputation-sensitive demand
Methodologies and project eligibility	Highly prescriptive methods with clear eligibility rules; reduced ambiguity but constrained project design flexibility	Rules center on forest category/eligibility and ETS accounting; design flexibility within ETS constraints	Registry methodologies (IFM, afforestation/reforestation, avoided conversion); higher flexibility but scrutiny around baselines	Wide range of methodologies and quality; biggest variation in baseline setting, additionality, and leakage treatment
Credit integrity perception (additionality, baselines, leakage)	Stronger standardization and auditability due to oversight; clearer frameworks but integrity debates exist, mostly outside forestry	Integrity linked to ETS accounting and policy settings; credibility high but impacted by policy changes	Integrity perception varies widely by program and project type; baseline/additionality controversies prominent	Widest dispersion of integrity; buyers differentiate high-integrity credits; low-quality supply discounted or avoided
Permanence, reversal, and liability structures	Formal permanence periods and well-defined reversal/buffer mechanisms; explicit and regulated liability	Direct and material liability (e.g., obligations upon harvesting/reversal); highly relevant to forest management	Buffer pools and registry-specific reversal rules; enforceability and longevity depend on legal structure and registry terms	Permanence approaches differ by standard; buyer acceptance depends on transparency of buffer, monitoring duration, and enforceability
Price formation and forecastability	Policy-anchored prices; subject to policy uncertainty (rule changes can shift supply/demand quickly)	Policy-anchored prices; subject to policy uncertainty (rule changes can shift supply/demand quickly)	Market-preference-driven prices (claims, reputational cycles, integrity headlines); higher volatility and wider bid-ask spread across quality tiers	Market-preference-driven prices (claims, reputational cycles, integrity headlines); higher volatility and wider bid-ask spread across quality tiers
Transaction complexity and operating burden (MRV)	MRV process-heavy but standardized; clear compliance reduces ambiguity but increases admin load	MRV/accounting intertwined with forest management and ETS reporting; significant operational implications	MRV requirements vary by registry and methodology; verification cycles, inventory approaches, and monitoring tech choices affect cost and issuance timing	MRV requirements vary by registry and methodology; verification cycles, inventory approaches, and monitoring tech choices affect cost and issuance timing
Sovereign / political risk	Lower sovereign risk, but policy risk remains	Lower sovereign risk, but policy design risk remains	Lower sovereign risk; higher risk is program/registry and reputational rather than sovereign	Sovereign risk can be key driver, especially where land tenure, enforcement, and legal durability are weaker

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Carbon’s Role as a Core Portfolio Return Driver

Core Return Driver

- Carbon is increasingly recognized as a **core portfolio return driver** in institutional timberland investing, reflecting a shift from its previous perception as a **speculative or optional overlay**.
- This evolution is driven by the growing ability and competition to **underwrite carbon revenues** with greater confidence, supported by maturing market mechanisms and policy frameworks.

Integration with Traditional Returns

- The integration of carbon revenues with traditional timberland return components—such as **timber income, land appreciation, and HBU opportunities** —creates new monetizable attributes.
- These attributes influence **operational decisions**, including harvest timing and rotation strategies, species selection and can enhance both the **risk-adjusted returns** and flexibility of timberland portfolios.

Investor Response

- Institutional investors are responding to this shift by placing heightened emphasis on **underwriting discipline, robust governance, and adherence to integrity standards**.
- This focus ensures that carbon is treated as an **investable, repeatable, and auditable source of value**, rather than contingent upside, aligning with the rigorous requirements of institutional capital allocation and risk management.

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Carbon’s Offerings in Institutional Timberland Portfolios

Enhanced Revenue

- **Enhanced Revenue Stream**: Carbon provides an additional revenue stream that complements traditional timber income and land appreciation, resulting in a more robust and diversified return profile for institutional timberland portfolios.

Augment Cash Flows

- **Augmented Cash Flows**: By introducing a monetizable attribute, carbon augments cash flows and offers alternative timing and smoothing potential, which helps mitigate the inherent volatility of timber price cycles.

Optionality & Flexibility

- **Increased Optionality**: The integration of carbon credits increases optionality for landowners and managers, enabling strategies such as species switching and alternate harvest profiles to optimize both timber and carbon outcomes.

Diversification

- **Portfolio Diversification**: Carbon revenue drivers are fundamentally distinct from those of timber, contributing to portfolio diversification and reducing reliance on any single source of return.

Rotation Flexibility

- **Reduced Cash-Flow Volatility**: The presence of carbon in the portfolio can reduce cash-flow volatility and reward longer rotations or deferred harvests, supporting long-term value creation and risk management.

Key Risks in Carbon Investing for Timberland Portfolios

Policy and Regulatory Risk

- Evolving carbon policy and regulatory frameworks may impact project eligibility and value, potentially affecting both compliance and voluntary market participation.
- Uncertainty regarding future government intervention or changes in standards introduces unpredictability for long-term project economics.

Credit Integrity and MRV Risk

- Ensuring robust monitoring, reporting, and verification (**MRV**) of carbon credits is critical; deficiencies can compromise credit quality and investor confidence.

Permanence and Reversal Risk

- Carbon reversal due to natural events (fire, pest, storm) or management changes threatens the durability of sequestered carbon.

Commercial and Counterparty Risk

- Counterparty default or nonperformance, delivery shortfalls, buyer concentration, pricing basis risk. Reliance on developers, registries.

Portfolio and Operational Risk

- Carbon projects add layers of operational complexity, contract management, reporting requirments.

Market / pricing risk

- Carbon credit prices can be volatile, opaque, and highly sentiment-driven. Demand can shift with changing priorities, and different credit types trade a different prices based on market perceptions and preferences.

The Outlook for Carbon's Role in Timberland Portfolios

- **Carbon is shifting from a speculative overlay to a disciplined capital enhancer** in institutional timberland portfolios.
- **Institutions now integrate carbon as a core return driver**, emphasizing rigorous underwriting and repeatable value creation.
- This transition reflects a move toward **predictable, auditable, and underwritten capital enhancement** rather than opportunistic upside.
- The institutional timberland sector is expected to see a **continued focus on high-integrity and robust carbon programs**, supported by improved governance and clearer underwriting practices.
- Integrity standards for carbon credits are **tightening**, raising the bar for what is considered bankable.
- Fewer credits will qualify as investable, and institutions will demand **rigorous verification, permanence, and quality controls**.
- This evolution enables carbon to be treated as a **reliable portfolio return driver** rather than a speculative or contingent upside.
- As a result, carbon will increasingly function as a **disciplined capital enhancer**, supporting long-term portfolio value and risk management rather than serving as a hype-driven overlay.
- **Carbon's role in timberland portfolios will become more reliable and aligned with investor risk and return objectives**, supporting its acceptance as a disciplined, long-term contributor to performance.

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Thank you

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Disclaimer

Investing in timberland involves a variety of risks, not all of which can be foreseen or quantified, and which include, among others: general economic conditions (including market and price factors, changes in consumption and production levels and prices for logs, pulp and paper, construction and remodeling activity, material declines in investment in lumber mills, pulp mills and paper mills, population growth and other demographic factors, consumer preferences, price and availability of substitute wood and non-wood products, currency fluctuations and global economic health); availability of funding for governmental agencies, developers, conservation organizations, individuals and others to purchase the timberlands for conservation, recreation, residential or other purposes; local real estate market conditions, such as oversupply of, or reduced demand for, timberland properties sharing the same or similar characteristics as those in the investment's portfolio; competition from other sellers of timberland and real estate developers; weather conditions, insect infestations, or natural disasters having an adverse effect on the properties; risk of uninsured loss; relative illiquidity of timberland investments; changes in interest rates and available financing; impact of land use and environmental protection laws; changes in laws, regulations or the regulatory environment affecting tax, real estate and zoning; the ability to obtain all permits necessary for its timberland activities; and/or macro-economic conditions, including inflation, deflation, recession, rising energy prices, etc.

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