

History of Modern Timberland Investments

Chris Zinkhan

The Forestland Group, LLC

Chapel Hill, North Carolina USA



“Ancient History”—Prior to the 1980’s

- Outside of industry, individuals and families dominated timberland investments, typically in conjunction with forestry consulting firms.
- There were numerous private limited partnerships holding actively managed timberland. Again, professional forestry expertise was often offered through forestry consulting firms.
- The modest timberland offerings through financial-services firms had unfavorable terms for investors.



The Arrival of the TIMOs in the 1980's

- The early TIMOs generally evolved from bank trust departments and agricultural/timber lending groups.
- First National Bank of Atlanta closed the first TIMO-type commingled fund in 1982.
- John Hancock launched its first commingled fund in 1984.
- CalPERS approved its first allocation to timberland in the early 1980's.
- Capital raising by TIMOs was slow; “pioneer marketing” emphasized education about the emerging asset class.
- At the end of the decade, total TIMO assets barely exceeded \$1 billion.



Initial Drivers of Sector Growth over Last Two Decades

- TIMOs rode wave of diversification into non-financial assets by institutions initially triggered by enactment of ERISA in 1974.
- Entrance of “bell cows”—CalPERS, Yale, Harvard and others.
- Strong early performance, especially following dramatic harvest reductions on public forests in the early 1990’s in reaction to the northern-spotted owl.
- Empirical research generally supported marketing claims of favorable MPT attributes.
- Increased sophistication of timberland investment analysis and appraisal.

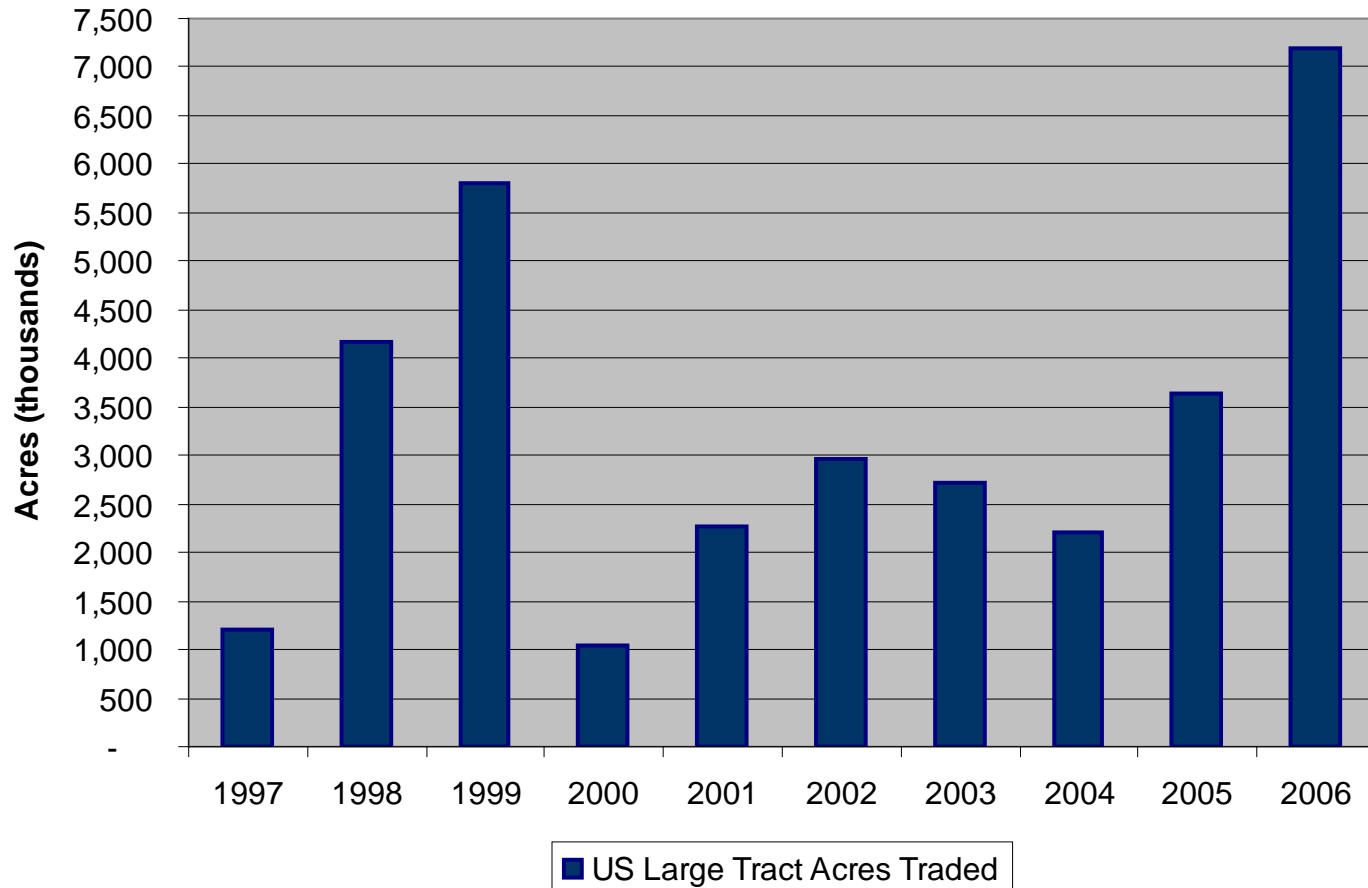


Recognized Attributes Driving Sector Growth

- Improvement in portfolio's alpha.
- Long-term targeted returns competitive with equities.
- Low correlations with financial assets.
- Biological growth and “ingrowth” are independent of business cycles and inflation.
- Hedge against unanticipated inflation.
- Relatively inefficient markets—though some sectors are becoming more efficient.
- Generates fairly regular income flows from timber sales.



An Active Decade: US Large-Tract Acres Traded



The Evolving Players

- In 1995, there were only six TIMOs; today, there are more than 20.
- TIMO assets under management have grown from about \$1 billion in 1990 to about \$25 billion today.
- A greater proportion of TIMOs are independent entities not affiliated with banks or insurance companies.
- Many TIMOs have internalized the forest-management functions.
- Investor base has expanded beyond an early focus on pension plans and public retirement systems to also include university endowments, foundations, family offices, and others.



Timberland Returns Over Past Two Decades

NCREIF Timberland Property Index-South Nominal Annualized Returns (Before Fees)

- *Last 5 years* 9.7%
- *Last 10 years* 8.7%
- *Last 20 years* 11.2% (3.5% Income/
7.7% Appreciation)



Risk and Return, 1987 - 2006

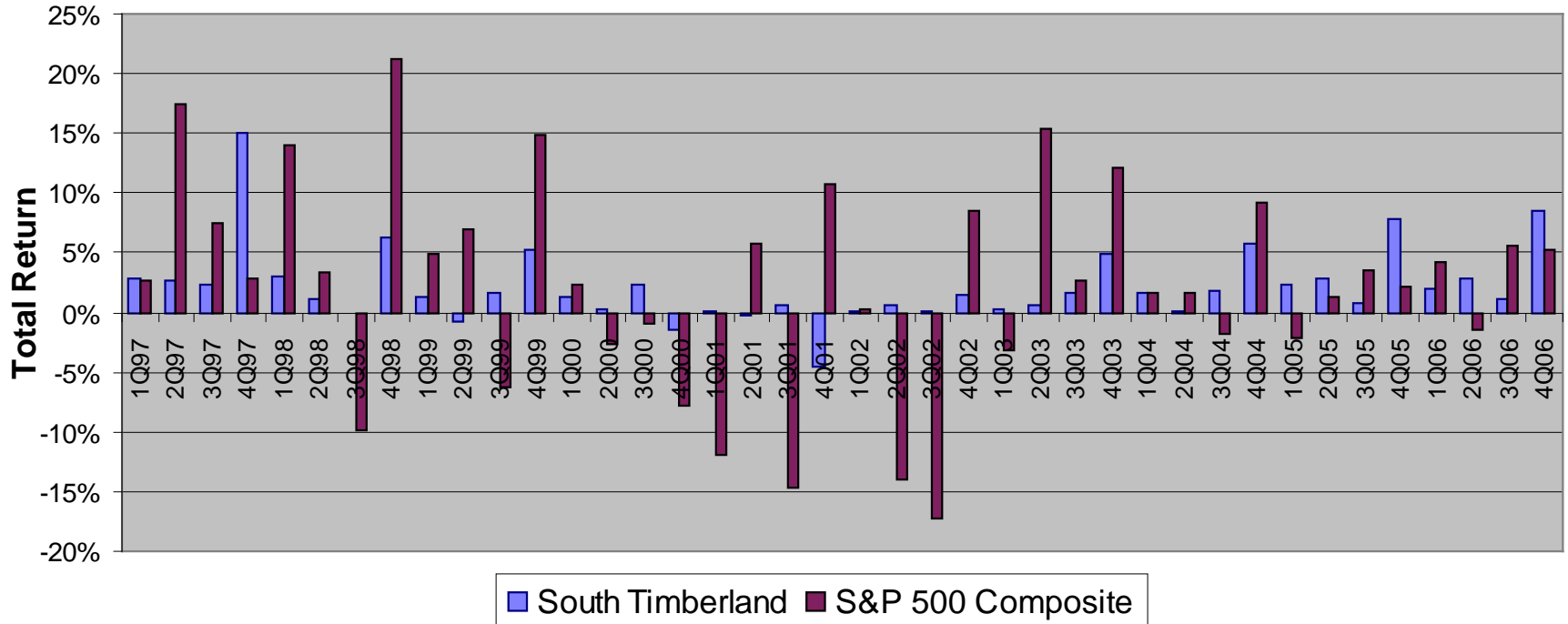
NCREIF-South

S&P 500

- Annual Return 11.2% 11.0%
- Standard Deviation 6.4% 16.0%



Diversification Potential of Timberland



Theme 1: Shift of Land from Industry to Institutions

- Wall Street pressure/poor stock performance by industry.
- Tax efficiency.
- To reduce company financial leverage.
- To re-allocate capital to processing and global distribution.
- Outsourcing of timber function: To TIMOs and REITs.

Question: From where will new properties be sourced?



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Theme 2: Momentum toward Private Markets

- Optimizing total returns versus management of quarterly earnings.
- Patience by institutions toward timberland's embedded strategic options (e.g., land-use conversion, shift of silvicultural systems).
- Lower regulatory and governance costs.

Question: Will public markets be an exit for some funds?



Theme 3: Greater Focus on Problem-Solving in Transactions

- Providing a turn-key exit opportunity for sellers of multiple asset types (e.g., timber, mills, minerals).
- Design timber-supply agreements for seller.
- Manage working forests—conservation deals.
- Decompose property rights—purchase only long-term cutting rights.
- Such measures can encourage deviations from price-based auctions.

Question: Will TIMOs and REITs be able to address problems of individuals and families?



Theme 4: Going Global

- North America accounts for only 17% of the world's forest area. [However, the U.S. South alone has about 20% of the world's industrial wood plantations.]
- RII, New Zealand launched in 1992.
- Global expansion toward highly productive regions, lower land and labor costs, proximity to emerging markets, search for species not found in North America, and sometimes less efficient markets.

Question: Are advantages outweighed by greater execution risk?



Theme 5: Evolution from Niche Players toward Diversified Entities

- In the 1980's and 1990's, most TIMOs emphasized a niche.
- Niches: Regional focus (e.g., South, Pacific Northwest), forest-type focus (e.g., pines, hardwoods), degree of emphasis on non-timber attributes (e.g., conservation, recreation).
- Many of the niche players are broadening their universes of opportunities.

Question: Will these players lose their informational edge?



Theme 6: Trend toward Unbundling Asset's Attributes

- Greater likelihood of carving out higher-and-better use (“HBU”) components during acquisition process.
- Buying/selling just timber-cutting rights.
- Monetization of conservation attributes through sale of conservation easements or areas with special resources.
- Selling the surface while maintaining timber-cutting rights.

Question: Will the market be receptive to residual property with a more limited array of ownership rights?



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Theme 7: Greater Need to Differentiate and Expand Forest Outputs

- Forest Certification.
- Sale of Ecological Services.
- Virtual vertical integration.
- Reliability/Consistency: Timber volumes, timber quality, terms of sale, service to buyers.
- Scale of operations, market power.
- Global marketing and distribution.

Question: Will the nature and behavior of timberland returns change as the flow of forest products/services evolves?



Theme 8: General Avoidance of Price-Based Hedging

- TIMOs and REITs purchase traditional forms of general liability insurance.
- Purchase of insurance against timber-damage perils is rare.
- Lack of significant interest in forest-products-based derivatives to protect against price swings—there was some early usage. Expense, long-term investment horizons, relatively modest portfolio allocations, cross-hedging issues, and desire for long-term exposure to price swings have diminished the demand.

Question: Will institutional investors use the S&P Global Timber & Forestry Index and related exchange-traded index funds to manage exposure to the asset class?



Conclusions: Evolving Timberland Markets

- Increased capital flow into the sector from institutions and individuals:
 - New TIMOs and REITs.
 - Other buyers with increasing capacity.
- Lower implied required returns on domestic timberland transactions; more explicit pricing of non-timber attributes.
- Greater informational efficiency in developed markets.
- Buyers more willing to take on embedded problems to enhance returns and allocate capital to international opportunities.
- Buyers need to fully explore strategic options embedded within timberland: changing silvicultural plans, bundle of property rights to be maintained, land uses, etc.



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