

Rethinking Investments in Forestry

Clark S. Binkley, Ph.D. Managing Director and CIO Hancock Timber Resource Group 99 High Street, 26th Floor Boston, MA 02110-2320

+1-617-747-1583 (tel) +1-617-747-1617 (fax) cbinkley@hnrg.com www.hancocktimber.com







Disclaimer

Projected Performance

Projected performance figures are based on a model containing certain assumptions, including but not limited to assumptions as to growth rates, harvest levels, timber prices, production costs and liquidity. They should not be construed as guarantees of future returns, nor should they be interpreted as implications of future profitability. Potential for profit as well as for loss exists. The impact of future economic, market and weather factors may adversely affect model results. Other properties managed by HTRG had investment results materially different from the results portrayed in the model. Performance objectives and projections are based on information available to us at this time and are not meant to be interpreted as guarantees or commitments to future results. The economic outlook is developed by HTRG's economic and asset class professionals. Our outlook is based on the information available to us at this time and our analysis of same. While we are confident in our projections, one should not interpret them as a guarantee of performance.

Before Fees Performance

Performance figures do not reflect the deduction of investment advisory fees.

The client's return will be reduced by advisory fees and any other expenses it may incur in the management of its investment advisory account. Investment advisory fees of Hancock Natural Resource Group are described in Part II of Advisors Form ADV.

Effect of Advisory Fees Over 10-Year Period

If, for example, the gross total annualized return of a \$10 million investment over a 10-year period were 8% real (net of inflation), deducting an annual investment management fee of 95 basis points on the invested capital over a 10-year period would produce a total value of \$20.5 million after fees, versus \$21.6 million before fees.



Agenda

- I. What is a forestry investment?
- **II.** Why invest in forestry?
- III. How will markets for environmental services affect forestry investments?
- IV. Summary and Conclusion



Growth in Institutional Ownership of Timberland in the US



Source: HTRG Research based on estimates of total AUM for TIMOs and average value/hectare from NCREIF Timberland Index database

- ERISA launched the modern era of institutional investment in timberland
 - Structural economic issues in the forest products industry accelerated the growth
 - Problems with US GAAP accounting
 - LBOs and takeover fears
 - Growth of institutional ownership has averaged 21.8%/yr since 1987
 - Dis-integration of timberland has become a trend
 - globalization, consolidation and increased M&A activity
 - Wall Street preferences for focus
 - increased sophistication of TIMOs: WSAs, tax-efficient structures, more capital
- Private-equity allocations have continued; public-equity alternatives have emerged



- Acceptable risk-adjusted returns
- Reasonable levels of cash-flow
- Diversification for large, mixed-asset portfolios
- Preservation of capital
- Faith in the underlying production process trees grow as long as the sun shines and the rain falls



High risk-adjusted returns and strong cash yield



Nominal annualized returns, before fees, as of 12/31/02; Please refer to Notes page.

*1st Quarter, 1987, the inception date of the NCREIF Timberland Index

- The NCREIF Timberland Index reports actual returns of U.S. institutional properties
- The Timberland Index now includes 255 properties valued at \$US 4.9 billion (as of 12/31/02)
- NCREIF is a consistent, independent performance measure for US timberland; there is no comparable measure for non-US timberland investments



High risk-adjusted returns

Return & Standard Deviation (1960-2002)



Source: HTRG Research

*Data for commercial real estate and international equities are from 1970-2002. Data for timberland returns refer to John Hancock Timberland Index for 1960-1986, NCREIF Timberland Index for 1987-2002. BC and NZ for 1983-2002. Past returns are not a guarantee of future results; potential for profit as well as for loss exists.



Diversification for a mixed-asset portfolio

Historical \$US Correlations with Timberland (1960-2002)*



Source: HTRG Research

*Data for commercial real estate and international equities are from 1970-2002. Data for timberland returns refer to John Hancock Timberland Index for 1960-1986, NCREIF Timberland Index for 1987-2002. Past returns are not a guarantee of future results; potential for profit as well as for loss exists.



Low to moderate risk (Security Market Line, 1990-2002)



Sources: Timberland returns are calculated from the NCREIF Timberland Index. Returns for financial assets were obtained from Ibbotson Associates 2002. Securitized Timberland calculated from returns by Deltic Timber, Crown Pacific, Plum Creek, and U.S. Timberlands. Forest products company data from S&P Forest Product Index. Market Portfolio consists of common stock (35%), small cap. stock (6%), long-term corp. bonds (11%), U.S. government bonds (33%), and U.S. 90-day treasury bills (15%).



Timberland risks can be controlled



Source: HTRG Research



How will markets for environmental services affect forestry investments?

Reduce risks, increase returns, and shift production set

Conservation sales reduce invested capital and environmental risks

- Easements and fee-simple sales have become material in the US (~200,000 ha/yr)
- Purchases are funded by non-profits, governments and foundations
- Tax-free debt financing for conservation purposes is close to reality

Carbon sequestration credits may add 200-400 bps to afforestation projects

- Carbon revenues provide early cashflow
- Additional returns partially offset pernicious effects of agricultural subsidies
- Establishment of markets will reduce counterparty risk
- New plantings will reduce future timber prices

Result will be a new forested landscape

- More forests!
- Conservation plantings in sensitive areas (riparian zones, links among natural forest remnants)
- Restoration of degraded landscapes
- Accelerated transition from the hydrocarbon economy to the carbohydrate economy

Notes: Estimates based on numerous assumptions, any one of which may turn out to be incorrect. Actual results may differ materially from these estimates. A potential for loss as well as profit exists.



Rethinking Forestry Investments

Summary and Conclusions

 Large-scale forestry investments are not just for forest products companies or governments.

Institutional investors

- Need long-term assets to match long-term liabilities
- Have realistic return expectations and want diversification
- Need to place enormous amounts of capital
- Typically represent the broad public.
- Because the value of environmental services generally do not flow to the forestland owner, society systematically under-invests in forests.
- If and when traded in markets, ecosystem services can receive full valuations and investors and foresters will respond.



Biographies

Clark S. Binkley, Ph.D., Managing Director and Chief Investment Officer, is responsible for equity capital raising, client account management, and investment strategy and research functions. Prior to joining HTRG, Clark was Dean of the Faculty of Forestry at the University of British Columbia. He has served on the boards of directors of several publicly traded forest products companies and private timberland ventures and has consulted to numerous forest products companies, governmental agencies and private conservation groups. He has written more than 100 books and articles on forest economics, and is known worldwide for his research on timberland investments. Clark holds degrees in Applied Mathematics and Engineering from Harvard University and in Forestry and Environmental Studies from Yale University. From 1978-90, he was a member of the faculty at Yale University, both in the School of Forestry and in the School of Management, and in 1990 was named the Frederick K. Weyerhaeuser Professor of Forest Resource Management. Clark also served on the Advisory Board of the Hancock Timber Resource Group from 1989-92.