James (Jim) A. Rinehart
R&A Investment Forestry
The Presidio
38 Keyes Avenue, Suite 111, Mail Box 12
San Francisco, CA 94129
Phone: (415)561-3301
Fax: (415)504-7214
Email: Rinehart@InvestmentForestry.com
Website: www.InvestmentForestry.com

TIMBERLAND AS A FINANCIAL INVESTMENT: IMPLICATIONS FOR FOREST OWNERSHIP AND CONSERVATION

February 2006

In an article in the December 2004 Journal of Forestry, John Beuter and Ralph Alig quoted a landowner as saying "With what you have to pay for timberland these days, you can't afford to use it to grow timber." This has become increasingly true of late, as competition for timberland causes investors to push assumptions to the limit and to seek value wherever they can find it. The greatest threat to forestland has moved from overly intense management to developed uses, otherwise known as "Higher and Better Use" or HBU. This article examines the change in ownership of timberland over the last 20 years and the rise of timberland as an institutional investment class where it was once held largely by forest products companies for its strategic value. The discussion will focus on the following:

- *The current national distribution of timberland ownership among ownership classes*
- *A description of the various private ownership classes*
- *The change in relative importance of these classes of ownership over time and*
- *Implications for the future of forest ownership and conservation in the United States and the Pacific Northwest.*

DISTRIBUTION OF FORESTLAND OWNERSHIP

Figure 1. represents the distribution of U.S. forestland among ownerships categories.

Ownership	Acres	US %	PNW**
National Forest	147,000,000	19.6%	
Other Public	170,000,000	22.7%	
Total Public	317,000,000	42.3%	70.1%
Forest Industry	68,000,000	9.1%	
Other Private	363,000,000	48.5%	
Total Private	431,000,000	57.6%	29.9%
All Owners	**748,000,000**	**100.0%**	**100.0%**

Figure 1. U.S. and PNW Public and Private Forest Ownership
*** Includes AK, ID, OR, WA*

Note that the Pacific Northwest is more heavily weighted to public ownership due to its National Forests.

With regard to changes in ownership and impacts on commercial markets for timber and timberland, most recent activity has been in the private sector. Within this sector, increased competition from developed use can lead to loss of both commercial and public forest values. Western states are buffered against this by the high public forest component. Still, with 30 percent or more of forest cover in private ownership, the Pacific Northwest in general is susceptible to forest loss through fragmentation and development as a competitive investment environment seeks return wherever it can be found.

Ownership Size

	Size Class	Acres	%	Owners	%
LARGE	100,000+	65,000,000	17.62%	60	0.00%
	5,000 - 100,000	59,370,000	16.09%	2,350	0.02%
SMALL	1,000 - 5,000	14,843,000	4.02%	21,135	0.22%
	<1,000	229,753,000	62.27%	9,580,400	99.75%
	TOTAL	368,966,000	100.00%	9,603,945	100.00%

Figure 2. U.S. Ownership Distribution by Size

Forests come under greatest threat when ownerships change. Figure 2 divides U.S. private forestland ownerships into two classes: Large and Small. At 5,000 acres or less, the important ownership change is intergenerational transfer. In this category, ownerships are entering their fourth or fifth generations and keeping the forest in the family is a challenge due to poor planning, lack of family involvement, focus on financial motives, and other reasons.

At 5,000 acres and up, the most important change is a shift from strategic owners, that is, the forest products industry, to financial investors. These owners, by nature and definition, are also driven largely by financial motives.

Note that the "Large" category represents less that one quarter of one percent of total owners, but one-third of private forestland, and nearly all the landscape level private forestland. This applies for the most part across the country, including the Pacific Northwest, presenting the most efficient policy and conservation target. Programs targeting few owners with many acres are simply easier to administer.

This article focuses on large owners, examining their behavior over the last 20 years. It is important to note that each shift in ownership within this class results in an increasingly lower focus on long-term forest values.

CATEGORIES OF LARGE PRIVATE OWNERSHIP

Large private owners are defined as follows:

Forest Products Industry. The traditional large landowners, vertically integrated to accommodate a high degree of raw material self-sufficiency for their lumber or paper mills. Examples include Weyerhaeuser Company and International Paper.

TIMOs. (Timberland Investment Management Organizations). Private companies acting as investment managers for institutional clients, primarily pension funds, endowments, and wealthy individuals. Timberlands are owned as illiquid direct investments or partnership shares, generally in separate accounts but frequently in pooled funds. Examples include The Campbell Group, The Hancock Timber Resource Group, and Forest Capital Partners.

REITS and MLPs (Real Estate Investment Trusts and Master Limited Partnerships). Companies focusing mostly or exclusively on timberland ownership with a high degree of liquidity through the public trading of shares on a stock exchange. Examples include Rayonier, Plum Creek, Potlatch, and Longview Fibre.

Private Investors. Privately held companies or individuals, frequently family ownerships, generally focusing exclusively on timberland ownership and the sale of logs. Can be oriented to long-term ownership (Port Blakely Tree Farms, Washington), or short-term ownership frequently resulting in fragmentation and development (Barrs & Glawson, Georgia).

Arbitrage Investors. Large-scale highly sophisticated “Wall Street” style investors operating hedge funds and partnerships with very large pools of capital, often multiple billions of dollars. Short-term in nature with a view to acquiring entire companies and quickly selling off assets. Examples include Madison Dearborn Partners, who recently acquired Boise Cascade, and Cerberus Capital, who recently purchased the paper division of Mead-Westvaco.

*Transaction Conservation***.** Transaction-oriented non-profit conservation organizations that have traditionally acquired small parcels for preservation but are now turning to larger acquisitions of working forests or of working forest easements. Conservation organizations have the potential to resolve or attenuate forest loss through the large-scale acquisition of working forest easements in partnership with financial investors. Examples include Cascade Land Conservancy, Pacific Forest Trust, Trust for Public Land, The Nature Conservancy, and The Conservation Fund.

THE EVOLUTION OF TIMBERLAND AS A FINANCIAL INVESTMENT

Large-scale change generally takes place gradually, building speed and momentum as the conditions underlying it develop. This is true of the shift in ownership of industrial timberlands. It has taken two decades for financial investors to dominate timberland ownership, with most of that change occurring since 1996. The remainder of this article describes the three phases that characterize shifting ownership.

PHASE I: 1983 to 1995– Life Was Easy!

- **Plenty Of Land**
- **Low Competition**
- **Expected Returns of 8.0% on average**
- **Countercyclical to the Stock Market**

The switch from strategic to financial investors started almost inadvertently in the early 1980's when agricultural lenders, including John Hancock Mutual Life Insurance Company and 1st Atlanta Bank of Atlanta, and their institutional investment clients found themselves with a growing portfolio of timberland and other agricultural assets through a series of loan foreclosures. These "investments" did well enough that these institutions began to promote timberland investment as a new financial asset class.

Applying portfolio theory to their new funds, they were able to demonstrate that not only did timberland yield attractive risk adjusted returns, but that historical timber returns were counter-cyclical to the stock market, making timberland investing a perfect diversification strategy. With the usual splitting and shifting of organizations, the Hancock and 1st Atlanta timber groups gave rise to Hancock Timber Resource Group, PruTimber, Wachovia Timberlands, Forest Investment Associates and several others. Timberland Investment Management Organizations, TIMOs for short, developed substantial presence. Today, Boston and Atlanta remain the primary geographic centers of the timberland investment industry.

TIMOs were not the only financial timberland investors at that time. In 1985 Sir James Goldsmith bought Crown Zellerbach and several other large timber-owning forest products companies, spinning off processing and marketing businesses and retaining timberland for arbitrage. This type of investor will return vigorously to the scene 20 years later.

Markets were imperfect during this first phase and economic conditions were favorable. Demand was high, Japan was rapidly expanding its economy, there was a perception of supply shortfall, and stumpage prices were increasing in real terms at the rate of 1.5 percent per year compounded. Most important, there was very little competition and investors were able to acquire timberland and associated assets for timber value alone. Other values, even development potential, came along without cost. Projected returns were about 8.0 percent on average, net of inflation, very attractive for what appeared to be a low risk investment.

When the spotted owl was listed in June of 1990, investment performance rose even higher. Western supply dropped by 50 percent, mills started to panic and prices shot up, generating big payoffs for private landowners and solidifying TIMOs as competent institutional investment managers. Some early investors saw 25 percent returns or higher.

But there was a downside. As more investors were attracted to the market, they began to expect higher than "expected" returns, something the asset couldn't support for long. The success and maturation of the asset class began to create its own difficulties.

At the outset of this activity, some industry professionals with an eye to conservation promoted TIMOs as precisely what western states needed; a long-term, patient owner on a renewable asset that performed very well if managed with wisdom and patience, but was at the same time subject to degradation if managed solely for short-term gain. Pension funds were debt-averse and had no need for near-term income, content to see their investment capital appreciate. That view was correct at the time, until the market began to tighten.

By the end of 1995, we had a new eco-friendly asset class with a $5 billion portfolio poised for disappointment.

PHASE II – 1996 to 2000 – Not So Easy After All

- **Demand Down + Supply Up = Lower Prices**
- **Competition from REITs, MLPs, and Private Investors**
- **Wall Street says: *"Unlock Timberland Value."***

The industry story was now one of supply. Mills had closed in the West and capacity had moved to the South, taking demand with it. The Japanese economy had failed and western timber prices had plummeted. Plantation technology had advanced and there was a "Wall of Wood" coming from every direction, the South, the Northwest, Canada, Australia, New Zealand, South America.

At the same time, there were more investors buying timberland, forcing timberland prices higher in the face of declining income. This was a classic disconnect between value and revenue.

And pressure was mounting on the forest products industry to increase current return on equity. Timberland, with much of its value in the form of capital appreciation, just wasn't performing in the short term for public companies. This resulted in marching orders from Wall Street to "unlock timberland value" i.e., sell it. Forest products companies found they could deliver greater value to their shareholders by selling their timberland to an investor with a lower cost of capital from whom they could in turn buy back raw material. The traditional need for raw material self-sufficiency was replaced by the realization that one needn't own the forest in order to have it.

The separation of timber ownership from processing was in full swing and the forest products industry became net sellers.

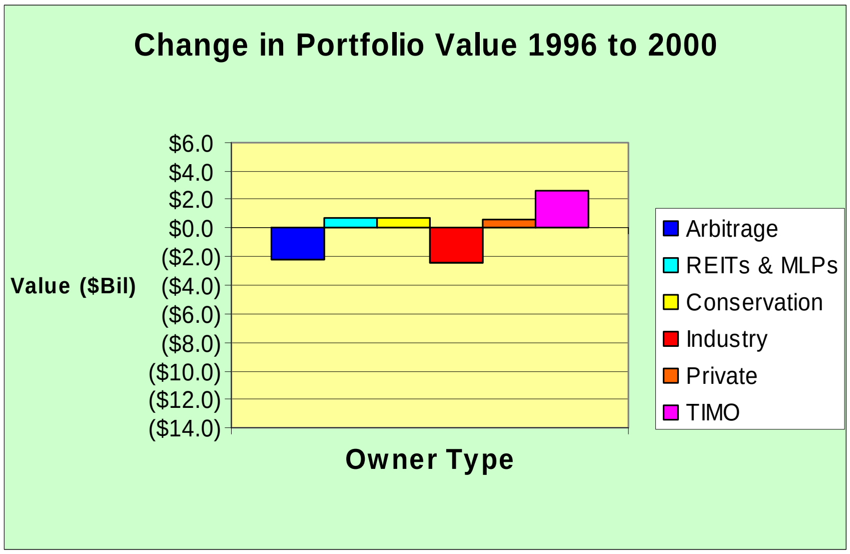

Figure 3. Change in Timberland Portfolio Value 1996 to 2000

Figure 3 illustrates this point. Note that what the forest products industry lost, TIMOs gained. Note also that Arbitrage investors were net sellers as well. Sir James Goldsmith, who acquired his portfolio in 1985, sold it all in 1996. The "Arbs" will surface again.

Now a new class of investor is entering the scene. In addition to TIMOs, the asset class began to attract so-called "pure-play" publicly traded corporate-style investors, Master Limited Partnerships and Real Estate Investment Trusts (REITs).

The problem with TIMOs is a lack of liquidity. Once an investor buys in, it is difficult to exit. REITs and MLPs, with shares publicly traded in the stock market, resolve that issue. The problem they face, however, is similar to that faced by publicly traded forest products companies, pressure to always generate high and steady current income in order to maintain share value.

Crown Pacific, a classic example of this, was a company that built a portfolio of approximately one million acres over a 10-year period and went bankrupt in December of 2004. During much of their tenure, as debt mounted and markets fell, they developed a reputation for over-harvesting and fire sales in order to make their debt service and earnings goals.

There have been other notable failures that have touched the West: Strategic Timber Trust and U.S. Timberlands are two more would-be big successes that have cost investors a lot of money and the landscape a lot of trees.

Most REITs and MLPs have failed, but not all. Plum Creek Timber Company is the largest timberland owner in the United States with roughly eight million acres of land. Rayonier is another big player with a substantial western presence. Both are REITs. Potlatch has converted to a REIT, as has Longview Fibre. Thus far, these companies have been successful, but their future in the eyes of some professionals is dubious. Both REITSs and MLPs are subject to current earnings pressures and both Plum Creek and Rayonier have recently created real estate divisions to enable them to find full value for their investors.

Another substantial buyer in the market is the so-called Private Investor. These are not to be confused with the typical small landowner and consist of 10 or fewer wealthy investors and their co-investors with a penchant for quick action and high risk. In the South they are known as "pin-hookers" for their strategy of buying and quickly reselling, generally fragmenting larger ownerships in the process.

Some private investors have proven themselves excellent managers. Port Blakely Tree Farms and Merrill & Ring, both private investors based in Seattle, have always been known for careful stewardship.

In addition, Conservation organizations, such as Cascade Land Conservancy, The Trust for Public Land, The Conservation Fund, and The Nature Conservancy have become increasingly active on a landscape level.

Phase II ends with the forest products industry downsizing their portfolio by $2.5 billion and TIMOs adding an equivalent amount to theirs.

Some Positive Traits Of TIMOs

- **Focus on Forest Management**
- **Debt Averse**
- **Patient Investors**

TIMOs have been as aggressive as other buyers in their effort to compete, but they have three positive traits that have implications for their ability to manage sustainably in the future: they tend not to carry debt, they would rather focus on timber value, and their investors tend to be patient. These attributes make them likely future partners in landscape-level working forest conservation strategies.

The above section can be placed in a side bar.

<u>PHASE III – 2001 to Current – Here Come the Arbs!</u>

- **The Tech Bust**
- **Too Much Capital**
- **Too Few Acres to Buy**
- **Expected Returns Decline to 6%**
- **Large Scale Arbitrage**

It is interesting to observe that around 2002 to 2003, it looked like things might improve. Investors, impatient with poor returns, were beginning to put pressure on their managers to become more realistic in their assumptions and to pay less. A correction seemed imminent. But then the tech bubble burst, the stock market declined dramatically, and institutional capital began seeking a new home. Five to six percent returns from timber suddenly looked attractive as a safe place to park capital. So instead of demanding higher returns and lower prices, investors capitulated to low yield, with the caveat that managers must aggressively seek value wherever it could be found. Today, TIMOs and other investors are awash with cheap capital and once again we have a sellers market and continuing pressure on parcelization and development.

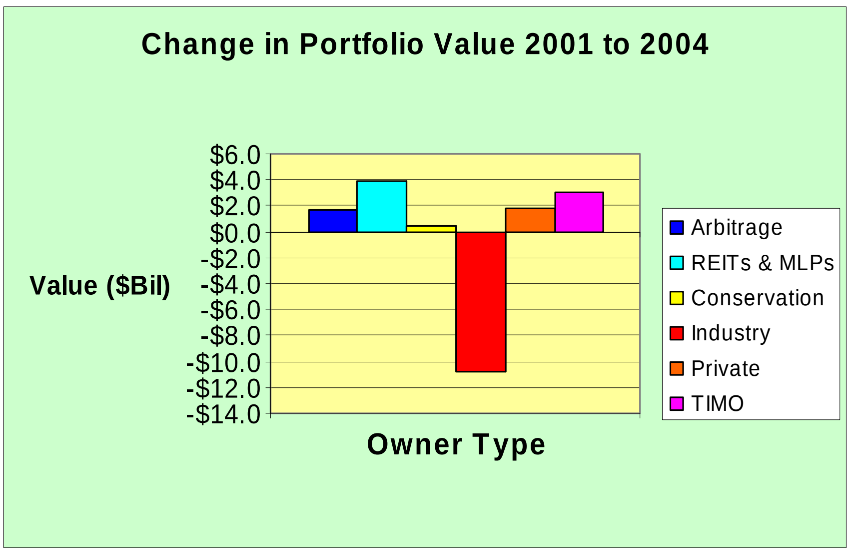

Figure 4. Change in Timberland Portfolio Value 2001 to 2004

Table 4 illustrates the market profile by the end of 2004 and the likely condition for the foreseeable future

Private investors have always been a factor, but never so much as now. The buyers referred to as pinhookers in Phase II accounted for 27.9 percent of the $5.0 billion that traded in 2004.

And again, a new investor has entered the scene. More precisely, an old investor has returned. Recall Sir James Goldsmith in the mid-80s. Sir James died years ago, but his successors are back. These are very large arbitrage specialists who acquire companies whole, then actively spin off assets in transactions engineered to generate the highest possible return. They are highly leveraged, very sophisticated investors with little patience and little concern for sustainable forest management. Rapid turnover is their primary driver. Just in the last year, there have been two such mega deals for Boise Cascade and Mead Westvaco, with a total of three million acres. Madison Dearborn Partners, the buyers of Boise Cascade, almost immediately sold all of the former Boise timberlands to Forest Capital Partners for $1.65 billion. Cerberus Capital, the buyers of the Mead-Westvaco paper division recently sold 650,000 acres to Plum Creek for $345 million and the balance to Tolleson Investments for $165 million.

Today, a buyer who bids only on timber cannot hope to compete and Higher and Better Use, otherwise known as HBU, or Real Estate, has become a large component of return.

CONSERVATION IN THE FUTURE: It's the HBU!

- **Direct Partnerships with Financial Investors**
- **More Conservation Capital**
- **Faster Capital Deployment**
- **Focus on Conservation**
- **Seek Low-Cost Partners**

For conservation advocates, the increasing competition among institutional and private investors over the last few years has taken the focus off forest management and put it squarely on fragmentation and development and on keeping forests intact as working forests. In order to do this, however, transaction conservation organizations must behave more efficiently than they have in the past, they must think more like financial investors, and, in fact, partner with them through efficient use of landscape-level working forest easements. In this way Conservation can invest with the financial buyer at the wholesale level, rather than employ its traditional retail strategy of acquiring small conservation components after the larger transaction has been done. Conservation organizations have a relatively lower cost of capital than financial investors. Properly applied, this can result in a competitive advantage that will attract TIMOs to partner with them and allow scarce conservation capital to go farther.

The following suggests ways in which policy makers and the Conservation community might increase their effectiveness:

- First, relationships with TIMOs should be developed. They have a focus on managing working forests and conservation can partner with them. Other investment vehicles and fragmentation specialists are less attractive.

- More funding must be made available to conservation and it must have the capability of rapid deployment. If conservation is to partner with financial investors, their capital must be deployed alongside that of their partners in order to achieve parity of risk and to align interests.

- Conservation should focus on the conservation components of transactions rather than on the acquisition of the commercial component. The commercial component is best left to the financial partner. They are better able to manage for financial return, particularly when the conservation component determines the course of management events.

- Conservation must find those partners with the lowest cost of capital. With a surfeit of 6 percent capital available, it makes no sense to partner with someone who needs 12 percent.

Increased population, expansion of communities, demand for space for homes and recreational property and the ever increasing pressure to generate investment return cause the future of working small private and industrial forests to be uncertain. Industry is faced with a diminution of their resource base and conservation must be more creative than ever in raising large sums of capital to combat pressures on forest fragmentation. On the other hand, increased global warming and loss of biodiversity may result in economic markets for ecosystem services, creating new products to help the forest compete. One thing is certain: the future is unknowable and the economics of forest ownership will be different a decade from now.
