

Forest investment: the emergence of timberland as an asset class

Phil Lacy^{1,2}

¹Forests NSW, Coffs Harbour, NSW 2450, Australia

²Email: onetree1@tpg.com.au

Revised manuscript received 17 May 2006

Summary

Forest management is a global business and forest ownership is changing. The new owners bring with them a new focus that is highly financially driven. As a consequence, forest management is also changing. The changes are most apparent when comparing various types of ownership of industrial forest, since who owns the forest largely determines management objectives and priorities. The Pacific Northwest of the USA is used as a case study to explore the emergence of timberland as an asset class. The increased investment in timberland by financial institutions has come about through weak financial performance of forest industries, stock market pressure on publicly-listed forestry companies, environmental risk, and a more attractive taxation system for trust fund managers. Trends in the USA can be related to similar trends in Australia: that is, the sale of government plantations and the substantial investment in managed investment schemes.

Keywords: forest ownership; forest management; private investment; assets; Pacific Northwest; United States

Introduction

Forest ownership is changing, and the new owners bring with them a new focus that is highly financially driven. How these new demands pan out in the future remain to be seen, but one thing is already clear: today's forest managers will see big changes in how they are expected to manage industrial timberlands. The changes are most apparent when comparing various types of industrial forest ownership, since who owns the forest largely determines management objectives and priorities.

Perhaps the most significant development to affect forest management on private land in the USA in recent years has been the recognition of timberland as an asset class, and the separation of forest ownership from wood processing. This trend to securitisation (i.e. pooling timberland assets and marketing them to investors) has changed the way in which many in the forest industry regard timberlands, and therefore the way such forests are managed.

This paper will examine the development of forest investment in the USA and its impact on forest management. It is based on a qualitative survey of a number of industrial forest management companies in the Pacific Northwest of the United States (PNW).

Industrial forest management companies in the PNW

For the purpose of this study, I undertook a qualitative survey of 10 industrial forest companies. The companies surveyed covered the range of industrial companies in the PNW:

- Large-scale private companies that own mills and timberland or only timberland;
- Publicly listed companies that own various wood processing plants and large tracts of timberland ('traditional' forest industry companies); and
- Third-party forest managers or 'Timberland Investment Management Organisations' (TIMOs). These companies manage forests that are owned by various investment bodies.

The industrial forest ownership shift

Industrial forests in the United States have been changing hands. There has been a significant shift from 'traditional' timberland owners, typically vertically integrated wood processing companies that own their own fibre resource, to a growing sector of third-party management companies that own timberland but do not operate processing facilities. These owners are investment-oriented, and focus primarily on earning maximum returns from their forest investment.

The shift in forest ownership has occurred for a number of reasons, such as:

- weak financial performance in the forest industry: companies looking for ways to increase profits,
- tax advantages associated with new investment-holding vehicles,
- environmental risk associated with holding timberlands, and
- global consolidation: companies refocusing on their core strengths in manufacturing and away from timberlands.

Historically, 'traditional' forest industry companies owned timberland to maintain a secure fibre source. In the PNW, most companies first obtained their raw material from the large tracts of public forests, and then used their own forests to supplement supply. This seemed to be a wise strategy for those vertically-integrated companies when, in the late eighties and nineties, federal timber supply declined rapidly (Fig. 1). Many of the

'processing-only' companies that did not have the security of their own timberlands during this period have closed. During the period 1989–1993, 242 mills shut and 30 000 mill and wood industry jobs were lost in the PNW. By 2000, mill closures increased three-fold and the number of jobs lost doubled (Mason 2002).

Owning timberland as a fibre security strategy began to come under question in the 1990s, as a number of developments converged. Poor financial performance in the forest products sector, especially amongst publicly-held companies, led investors to question whether these companies should sell timberlands to improve cash flow and profitability. Due to US accounting standards, timberland assets are recorded at cost, and therefore the true value of the timberlands cannot be captured for shareholders. Faced with poor financial returns, publicly-held companies in the industry came under pressure to find ways to reduce capital expenditure. Selling their timberland assets was one option to improve cash flow.

At the same time, the forest products sector was undergoing, and continues to undergo, consolidation both in North America and elsewhere. As companies merged and consolidated, they sought efficiencies and refocused on core strengths in manufacturing. Non-strategic assets such as timberland were sold to relieve debt, creating a new market for timberland (Block and Sample 2001). Of 40 companies identified by Sampson *et al.* (2000) as being large timberland owners (>160 000 ha) in 1979, almost half (19) had gone or no longer owned timberland in 2000 (Sampson *et al.* 2000).

Whilst vertically-integrated forestry companies were the big sellers of timberland in this shift, the largest purchases of timberland in recent years have been by TIMOs (Block and Sample 2001). TIMOs are essentially the timberland portfolio managers for a variety of clients such as public and private pension funds, foundations, wealthy individuals and endowments. Some of these institutional clients may have very large asset values (in the billions), for example California Public Employees

Retirement System (\$US174b), General Motors (\$US95b) and Harvard University (\$US13b) (Block and Sample 2001). Some TIMOs manage timberlands themselves (such as The Campbell Group and Forest Systems), and some contract this out (Hancock Timberland Investments Group and GMO Renewable Resources).

Wood processors can still maintain fibre security through long-term timber supply agreements with TIMOs. TIMOs recognise the counter-cyclical nature of the forest industry compared to other sectors. By holding, say, 1% of their money in timberland, they are diversifying their portfolio and reducing risk; 1% of a large fund may well be over \$US1 billion.

TIMOs appeared in the USA in the eighties, when institutions became interested in buying timberland and the traditional forest industry companies were selling. Figure 2 shows the increase in institutional investments from 1982 to 2002: from \$US30 million to over \$US11 billion in 20 y. TIMOs are not subject to double taxation as the institutions are mostly tax-exempt. They are not vertically integrated, so they have no fibre supply concerns (although some have signed agreements with processors to supply fibre).

Impact of securitisation on forest management

It was clear from discussions with various forest managers and types of owners that the type of forest owner influences the forest management practices. Each type of forest owner seems to be motivated to varying degrees by different drivers, although they all seek to make a profit.

The publicly-owned forest industry companies are under additional stock analyst scrutiny and are vulnerable to the swings of the stock market. Wall Street's short-term investment horizon is preoccupied with short-term profitability — they want to see good profits every year. Although this outlook does not suit the long-term business of forest management very well, these public companies must strive towards increasing value to their shareholders.

Of the companies surveyed, the publicly-listed ones said that adding value for shareholders was their primary concern, although most also recognised that there were legal and social limitations.

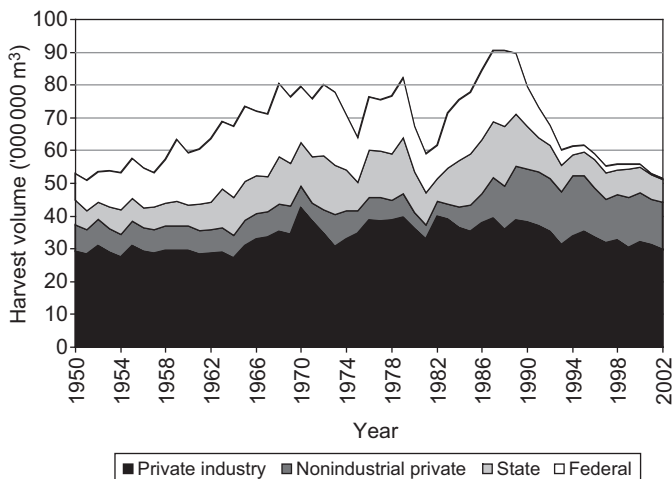


Figure 1. Washington and Oregon timber harvest by land source 1950–2002 (data from Adams *et al.* 2006)

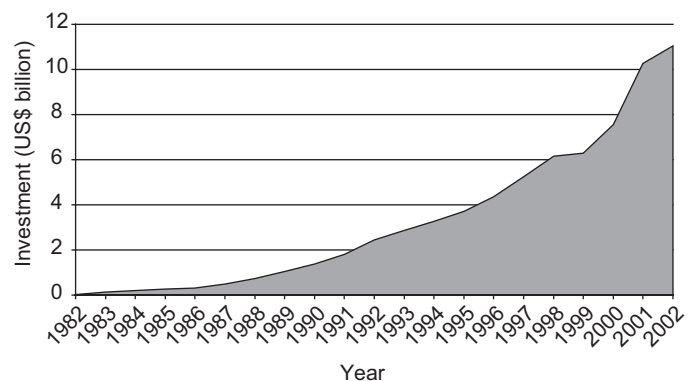


Figure 2. Growth in institutional investments in timberland, 1982–2002 (Kelly 2003)

The privately-owned companies are not subject to the same financial pressures as the public companies. As such, they have less external pressure to optimise the forest-growing aspect of their operations, and they can place more importance on developing an accessible, long-term, high-quality resource. These companies seem to be willing to spend more money on their timberlands in order to achieve this objective. Some vertically-integrated companies may even be willing to subsidise their timberland operations through other parts of their business, as long as the company as a whole is profitable. For some of these companies, maximising profit is not necessarily more important than managing a quality resource and being part of the community.

TIMOs have a very different view of forest management, and the days of primarily focusing on the biological and silvicultural regimes necessary to achieve optimal growth are fading. Today's forest managers are operating in a market environment where their timber must compete with cheaper imports and alternatives to timber, provide returns that meet Wall Street's short-term investment horizon, satisfy more stringent environmental regulations, and ensure public acceptance of their practices. The investment-oriented landowners are demanding financial, market and productivity data about all aspects of timber growing that far exceed the data which many traditional land owners would typically collect and consider in making forest management decisions.

The 'bottom line' is the main focus for TIMOs. Motivation percolates through these organisations to the point where every significant cost needs to provide a benefit that is usually expressed in monetary terms. TIMOs demand a sophisticated level of information gathering on which to base their forest management decisions, which is placing new demands on forest managers to be able to account for the cost and benefit of any proposed management activity.

TIMOs also have a shorter investment horizon than traditional timberland owners. Whereas traditional owners often state that ensuring a sustainable resource for generations is a key goal, the typical time period on closed-end funds (i.e. funds with a fixed life span) is 10–15 y, after which the fund is sold (Block and Sample 2001). The length of ownership appears to be a contributing factor to determining the level of management intensity. TIMOs would have difficulty justifying to their investors that treatment such as pruning will be of benefit. It is unlikely that the return from such an investment would be realised before the TIMO sells off the land. Because the highest costs associated with growing a stand occur at establishment, financial analysis shows that the sooner the company can capitalise on that expense, the more profitable it will be. For this reason, TIMOs tend to invest in treatments the results of which are apparent in the short term, as such treatments should result in increased growth in a pre-sale inventory. As forest management companies became more financially accountable and as the forests change to second growth, financial analysis of silvicultural regimes highlights the importance of reducing rotation age to increase profitability.

The results from the study indicate that the vertically-integrated, public companies were practising the most intensive silviculture. Vertically-integrated companies tend to manage their forests for the full length of a rotation, so they obtain the full benefit of their intensive practices. However, whether these companies are

obtaining a good return on their investment is questionable. In fact, one company stated that they were planning to move their operations from the PNW to south-eastern USA 'where the economics are better'.

Back to Australia

Forest management in Australia has also been going through significant change. Publicly-owned native forests are no longer the primary source of timber; plantations are. Annually, between 1996 and 2001, 9.1 million m³ of timber was harvested from native forests and 12.2 million m³ was harvested from hardwood and softwood plantations (National Forest Inventory 2003). It is very likely that this trend will continue in coming years.

Regional Forest Agreements (RFAs), developed between 1997 and 2001, were initiated by both the Commonwealth and State governments to develop a comprehensive, adequate reserve system and to ensure a 20-y timber supply from public native forests. To date, not all RFAs have been signed by both the Commonwealth and State governments. Social perceptions toward native forest harvesting since the completion of RFAs have initiated unilateral changes by State governments to some of these agreements. For example, additional areas of former multiple-use forests in the upper north-east of New South Wales have been added to reservations. In fact, since 1998, there has been a 22.2% increase in forest area placed in conservation reserves and a reduction of 14.6% of the area available for multiple-use forestry (National Forest Inventory 2003). Harvesting of all native forest in Queensland is planned to be phased-out by 2020, resulting in a forest industry solely based on plantation timber.

Socially, the Australian public is strongly influenced by the media, and the environmental movement has been very successful in swaying public opinion. The environmental movement has advocated the use of plantation-grown timber in favour of timber from native forests, and the Commonwealth Government developed a plan in 1997 to triple the area of planted forests to 3 million ha by 2020 (Plantations 2020 (2001)). In the future, given this background, it is very likely that an increasing proportion of the timber used in Australia, and exported, will be from plantations.

Forest ownership is also changing. Softwood plantations were established in the 1870s by government agencies. In the 1960s the rate of softwood planting increased throughout the States and Territories, as the supply from native forests was forecast to decline. Except for Victoria, the State and Territory governments still manage significant areas of public softwood plantations. As is the trend in the US, investment through large, multinational financial institutions has begun in Australia and is likely to increase. For example:

- the softwood plantations in Victoria have been sold to Hancock Timber Resource Group and a consortium of Australian funds managers;
- half of the softwood resources in Tasmania have been sold to GMO Renewable Resources;
- NSW Treasury has been investigating the sale of the NSW plantation resource.

The change from public to private ownership is likely to lead to significant changes to the way these plantations are managed. In order to maximise shareholder returns, private companies will scrutinise all operational practices and make decisions that are based on sound economic principles. The likely result will be minimal silvicultural input to produce the desired product, shorter rotations, and log prices that reflect the true cost of plantation management.

The planting of eucalypts is a relatively new development in Australia; it has increased significantly since the eighties. This increase has primarily been the result of private investment in the hardwood sector through joint venture and annuity schemes funded by prospectus-based companies; 85% of all hardwood plantations in Australia are privately owned (National Forest Inventory 2003).

Although changes to taxation rules saw a significant drop in this sector in 2001–2002, the tax rules changed again and investment in 2002–2003 was very high; many prospectuses had completely filled their subscriptions before the end of the financial year (Hopkins 2003). In 2003–2004, investment in timber projects was up 105%; these projects collectively attracted over \$500 million with the median individual investment being around \$45 000 (Australian Agribusiness Group 2004).

Most of these new plantations are for the production of woodchip for conversion to pulp and paper products, both in Australia and overseas. The companies that are planting and managing these plantations are using very intensive practices to ensure maximum growth and short rotations.

However, even with intensive management, eucalypt growth rates in Australia are not as high as in other countries, where significant investment in genetic improvement and the lack of natural pests may confer a distinct growth advantage. Although other countries can achieve higher growth rates, Australia still has some advantages including economic and political stability, and proximity to new and emerging Asian markets. Perhaps this is why a significant component of more than \$A6.5 billion invested in the forest industry over the last decade (National Forest Inventory 2003) has come from international companies.

As Australia continues down the path of privatising plantations, and as investment interest in this asset class builds up, we will see an increase in transactions of timberland. The valuation of forest assets will become more realistic, and the development of timberland as an asset class will mature.

The frequency of timberland sales and the investment timeframe of the fund managers will influence forest management in Australia. Investment in silviculture will be dependent not only on proving suitable economic return, but on the period of ownership of the stand in question. For example, if it is intended to sell an area of 5-y-old pine plantation in another 10 y, it is unlikely that a forest manager would invest in an operation that provides an increased return only at final harvest. There would need to be an appropriate increase in the sale price of the plantation at age 15 y, which is unlikely given the immaturity of this asset class and current valuation methods.

Conclusion

The US has witnessed dramatic changes to the forest industry of that country in the last 25 y. The increase in timberland investment by fund managers has led to changes in the way these timberlands are managed.

Today, economics is the main driver of forest management decisions. As Colin McKenzie stated, 'forest management can be thought of as the business of growing trees' (McKenzie 1999). This is a far cry from the traditional approach of forest managers, who were primarily concerned with the biological and technical aspects of establishing and protecting forests, silvicultural treatment and harvesting.

Managing forests to produce economic returns has taken on increased importance as wood has become a globally-traded commodity and countries compete for market share in several product categories. Under these economic conditions, there are more players in the field of timberland ownership and the new players, worldwide, are institutional investors.

Such investors view this as an asset class that, like any other, should provide a 'good' return on their investment. TIMOs, which manage these funds, heavily scrutinise the economic benefits of all forest management operations.

Publicly-listed companies, the world over, are driven by economics and the mantra of 'increasing value to their shareholders'. The privatisation of plantations in Australia is likely to continue, together with increased frequency of plantation sales. This means that more plantations will be owned by institutional investors and the practice of forest valuation will improve. The consequence for forest managers is that they will be expected to have a far greater focus on the economic benefit of operations than they may have had in the past.

Acknowledgements

This paper originated from a report written during the author's 12-month tenure at the World Forestry Centre as an International Fellow with the World Forest Institute in 2003–2004. The Fellowship was generously funded through the Forest and Wood Products Research and Development Corporation and the J.W. Gottstein Memorial Trust Fund. Forests NSW and the World Forest Institute, through the Harry A. Merlo Foundation, also provided funding. I am sincerely thankful to all of the funding bodies for this opportunity.

References

- Adams, D.A., Haynes, R.W. and Daigneault, A.J. (2006) *Estimated Timber Harvest by U.S. Region and Ownership, 1950–2002*. US Department of Agriculture Forest Service, Pacific Northwest Research Station, Portland, OR, 64 pp.
- Australian Agribusiness Group (2004) *MIS Industry End-of-Year Round-Up Report*. The Group, Melbourne, Australia. Available from <http://www.ausagrigroup.com.au/index.php>

- Block, N.E. and Sample, V.A. (2001) Industrial timberland divestitures and investments: opportunities and challenges in forestland conservation. Pinchot Institute for Conservation. Washington DC, USA. Available from http://www.pinchot.org/publications/discussion_papers/timber.pdf
- Hopkins, P. (2003) Interest blossoms in agribusiness. *The Age* newspaper, Melbourne, 7 July 2003.
- Kelly, M. (2003) The evolution and growth of forestland as an asset class. In: *Who will Own the Forest? Origins and Implications of Changing Ownership*. Conference proceedings. World Forest Institute, Portland, Oregon, USA. Session 3.
- Mason, L. (2002) *Will Low Prices for Large Logs Mean Shorter Rotations on Private Forestlands?* Rural Technology Initiative Fact Sheet #7. University of Washington, USA. Available from http://www.ruraltech.org/pubs/fact_sheets/fs007/fs_7.pdf
- McKenzie, C.R. (1999) Trends in international timber management. In: *Outlook 99*. Proceedings of the National Agricultural and Resources Outlook Conference. Canberra, 17–18 March 1999. ABARE, Canberra ACT. Available from <http://www.globalregister.co.nz/evergreen/reports/trends.pdf>
- National Forest Inventory (2003) *Australia's State of the Forests Report*. Bureau of Rural Sciences, Department of Agriculture, Fisheries and Forestry, Canberra. Available from <http://www.affa.gov.au>
- Plantations 2020 (2001) *Plantations for Australia: The 2020 Vision*. Barton, ACT, Australia. Available from <http://www.plantations2020.com.au/vision/index.html>
- Sampson, N., DeCoster, L. and Remuzzi, J. (2000) *Changes in Forest Industry Timberland Ownership 1979–2000*. Available from <http://www.sampsongroup.com>