



# Timberland Report

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## Forestland Markets Remain Hot While Forest Products Wane – Is There a Disconnect?

The rapid pace of forestland transactions and ownership changes has captured the headlines and conference agendas in recent years. Throughout 2007 forestland markets have remained hot while mills in parts of the US and Canada are closing and timber prices across North America have softened. In this issue we explore the relationship, or lack thereof, among forestland prices, forestland returns, and forest industry trends.

The technological and strategic shifts associated with wood-using facilities may have more significant implications for long-term forestland watchers and investors. Why? The reason is that changes in regional wood consumption have direct implications on the nature of competition in timber markets. This is important because forestland investors assume that increased competition for wood supplies is associated with higher stumpage prices and, ultimately, higher or sustained forestland returns.

The story of traditional forest products firms selling their forestlands is in its final chapter, as there remains but one publicly-traded industry giant with more than one million acres of forestlands – Weyerhaeuser – that has not announced a plan or executed a strategy to divest its forest assets. Meanwhile, wood-using firms continue their steady migration toward larger, high-volume mills and substituting technology for labor at lumber and panel producing facilities. In addition, new opportunities in bio-energy that rely on wood and forest residuals make for exciting and frenetic conversations among investors and landowners, while creating concerns among the directors of pulp mill-owning firms that currently consume the same raw materials.

### FORESTLAND AND MILL OWNERSHIP CHANGES

Forestland ownership and timber inventories represent endowments and legacies specific to local markets. Historically, we associate higher resource endowments – higher rates of forest growth and greater inventories of local forests – with deeper and more developed forest industry markets. This would be consistent with the first question asked by firms deciding where to build a new forest products mill: “Where is the wood?” Regionally, we see the truth of this in the dominant roles of the US South and Pacific Northwest, with their vast forest resources, as producers of forest products. Then, within these regional markets, we observe clusters of mills and forest industry activity in the richest 100-mile radius wood baskets. Examples include timber markets in Southwest Washington, South Georgia, South Arkansas and South-central Mississippi. Therefore, as forestland ownership changes, the mills that rely on these forest resources face potential changes with respect to access to the raw materials on which they depend.

At a strategic level, how significant is the magnitude of recent forestland ownership changes? From 2006 through early 2007, forest industry and financial investors participated in over 9.4 million acres of publicly-announced forestland transactions exceeding 100,000 acres each in size (Table 1). While the sellers of these forestlands represented a mix of industrial and institutional entities, the buyers of over three-quarters of these acres were timberland investment management organizations (TIMOs) on behalf of themselves or institutional clients. The announced purchase by Wells Timberlands was the first major foray by a newer breed of real estate investors: the private timber REIT marketed at individual investors. Private REITs join publicly-traded timber REITs – Plum Creek, Potlatch and Rayonier – as tax-advantaged forestland owning structures that remain accessible to individual investors.

*Table 1. Recent (2006-Q2 2007) Forestland Transactions Over 100,000 Acres*

<b>Seller</b>	<b>State(s)</b>	<b>Acreage</b>	<b>Buyer(s)</b>
International Paper	AL, AR, FL, GA, LA, MS, NC, SC, TN, VA	218,000	The Nature Conservancy & Conservation Forestry
International Paper	Southwide	3,700,000	Resource Management Services & Forest Investment Associates
International Paper	AR, LA, TX	900,000	TimberStar
Temple-Inland *	AL, GA, LA, TX	1,550,000	The Campbell Group
Mead-Westvaco*	AL, GA	323,000	Wells Timberlands
Carter Colt Harvey	New Zealand	500,000	Hancock Timber Resource Group
International Paper	MI	440,000	Resource Management Services & Forest Investment Associates
International Paper	NY	275,000	Lyme Timber Co.
Finch Paper Holdings**	NY (Adirondacks)	161,000	The Nature Conservancy
Bowatar	New Brunswick, Canada	227,500	Irving Woodlands
Menasha Forest Products	OR, WA	136,100	The Campbell Group***
Forest Systems	AL, AR, FL, MS, TN	340,000	The Campbell Group***
Longview Fibre Co.	OR, WA	588,000	Brookfield Asset Management

\*Announced August 6, 2007

\*\*Announced June 18, 2007

\*\*\*American Ag Credit provided financing for a portion of the transaction.

Who are the sellers of these forestlands? They primarily include vertically integrated forest products companies that have decided to divest most, if not all, of their forestland holdings. Who are the buyers? The acquiring organizations include TIMOs, a REIT (Wells) and asset management firms (i.e. Brookfield). What does it mean? Specialization has replaced vertical integration. The forest products industry has gone the way of computer manufacturers, lawyers, and professional baseball. The supply chain has been broken down and decoupled to improve transparency and efficiency, and the market incentives encourage individuals and firms to specialize in the specific areas where they can unlock the greatest value. For forestland investors, the apparent advantages included more efficient forest management – through regional forestry consultants and by focusing silvicultural investments – and more efficient forestland ownership through REITs, LLCs and S-Corps.

Forestland investors frequently cite intensive management practices such as fertilization and chemical competition control treatments as both strategic and as commodity services. In practice, it is commonly believed that the scope of these applications depends on stumpage

prices. However, research indicates that estimated forest investments were found to be unresponsive to changes in stumpage prices.<sup>1</sup> The lack of a significant relationship between forest investment returns and stumpage prices suggests that unleveraged or budget-insensitive forestland owners, such as institutional investors and TIMOs, may have a strategic advantage in forest management. Why? Because they can afford to be less reactive to the relationship between forest management budgets and current stumpage prices. The key for these investors is the impact on returns over the life of their investment.

Timber REITs have become an increasingly important player in the forestland acquisition and divestiture universe.<sup>2</sup> Between 1995 and 2006, the forestlands owned by the top ten owners in the forest industry decreased from 35.4 million acres to 24.3 million acres. In 1995, none of these acres were owned by REITs; in 2006, timber REITs owned 11.7 million acres. That means that timber REITs now account for nearly half of the acres owned by the top ten forest industry owners. In a way, they have come to define the industry's approach to owning forestlands in publicly-traded vehicles.

What factors have helped drive these divestitures? The evident separation of mills from forestlands highlights the distinct opportunities in investing in production facilities versus forestlands. With respect to mills, investments that upgrade existing facilities demonstrate higher marginal returns than building new mills. Investors are sweating the assets of existing mills and their infrastructures, investing selectively in upgrading machines and process rather than starting from scratch. Strategically, forest products manufacturers now focus on specific product lines and acquire, divest and consolidate mill assets that complement their portfolios. This strategy was evident in the divestiture of sawmills and plywood facilities by International Paper and their acquisition by West Fraser and Georgia-Pacific in 2007 (Figure 2).

*Table 2. Facilities Divested by International Paper in 2007<sup>3</sup>*

Buyer (Price)	Facility Type	City	State	Production/ Capacity (2005), '000 cub. M.	
				Lumber	Plywood
West Fraser (\$325 MM)	Lumber	Citronelle	AL	212	N/A
		Maplesville	AL	271	
		Opelika	AL	224	
		Leola	AR	401	
		McDavid	FL	472	
		Whitehorse	FL	210	
		Augusta	GA	307	
		Folkston	GA	212	
		Armour/ Riegelwood	NC	500	
		Seaboard	NC	224	
		Newberry	SC	330	
		New Boston	TX	342	
		Henderson	TX	307	

<sup>1</sup> Sydor, T. 2005. Three essays on the economics of forest investments. Ph.D. Dissertation, The University of Georgia, Athens, GA. 135 p.

<sup>2</sup> Mendell, B.C., T. Sydor and S. Freeman. 2007. Timber real estate investment trusts (Timber REITs). Timber Mart-South Market Newsletter, 1st quarter, p. 13-15.

<sup>3</sup> International Paper press releases; Spelter and Alderman, 2005. Profile 2005: Softwood Sawmills in the United States and Canada, USDA; Spelter and Alderman, 2006. Status and Trends: Profile of Structural Panels in the United States and Canada, USDA.

Buyer (Price)	Facility Type	City	State	Production/ Capacity (2005), '000 cub. M.	
				Lumber	Plywood
Georgia-Pacific (\$237 MM)	Ply & Lumber Complex	Camden	TX	382	319
	Ply & Lumber Complex	Springhill	LA	271*	332
	Ply & Lumber Complex	Gurdon	AR	295	325
	Plywood	Corrigan	TX	-	292
	Engineered Wood Prod.	Thornsby	AL	-	

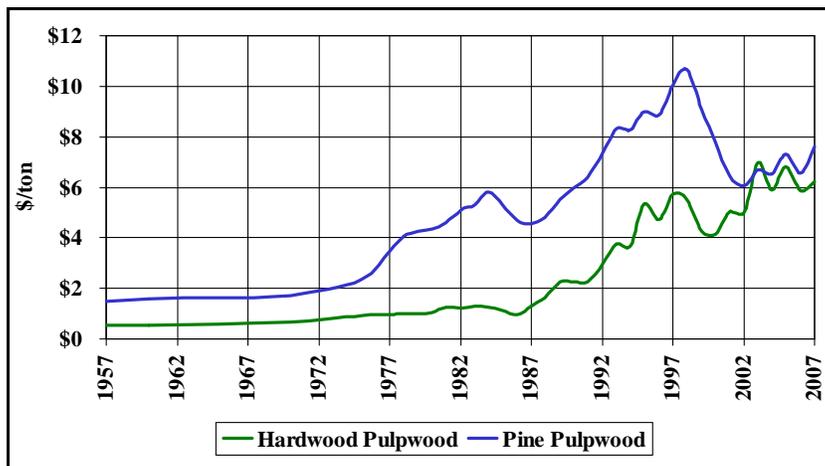
\*Lumber mill closed in 2002, number for that year.

Investors that recently allocated capital towards forestlands continue to cite traditional portfolio benefits: relatively strong risk-adjusted returns relative to other asset classes; a natural inflation hedge; and low correlation with equity markets. In addition, financial investors emphasize how a forestland asset represents, in and of itself, a portfolio of assets that include, at a minimum, land, multiple species of timber, recreational 'facilities', minerals, and potential ecosystem services. Finally, the transfer of forestland assets from traditional forest industry firms to TIMOs and REITs represents a tax play, where assets are moved to more efficient tax management structures producing immediate financial benefits to investors.

### TIMBER PRICES AND FOREST PRODUCTS PRODUCTION

Local demand for timber depends on the number and size of accessible wood-using facilities and on stumpage prices for primary forest products such as sawtimber and pulpwood. While short-term participants in the spot markets for timber attempt to divine opportunistic buying and selling strategies, year-by-year and decade-by-decade trends do provide insights for long-term investors. In the South, recent wood consumption figures highlight the continued importance and relevance of pulpwood markets. In 2006, pulpwood represented 44.6 percent of the 199.1 million tons of pine roundwood consumed.<sup>4</sup> Pine sawtimber and pine chip-n-saw comprised the balance. Also, pulp mills continued to mix in or substitute their furnish with hardwood pulpwood, a trend which has increased since pine pulpwood prices began accelerating in the early 1990s (Figure 3). As hardwood pulp has become a larger component of total pulp consumption, its price has risen to near parity with pine pulpwood in the region.

Figure 3. US South-wide Average Pulpwood Prices, 1956-2007<sup>5</sup>



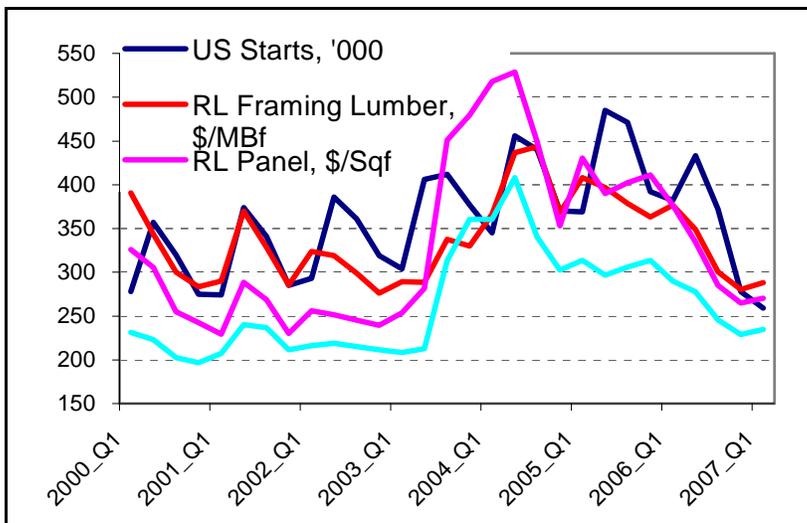
<sup>4</sup> Forisk Consulting LLC, Wood Demand Report.

<sup>5</sup> Data from the US Forest Service and Timber Mart-South.

This trend is partly a realization of the shift from plywood to OSB that was driven by the higher cost of raw materials and labor required in plywood production. OSB facilities use less-expensive pulpwood logs or chips and are less labor-intensive but more technology-intensive. Additional OSB capacity competes with plywood in the housing construction and remodeling market, but poses no threat to the demand for raw materials. OSB facilities compete for pulpwood and chips with pulp mills. Since 2001 OSB production gained 8.6% of the market share of Southern panel production, reaching 44.8% in 2006. Total OSB production in the same period increased 33%, while plywood production declined 6.9%. These trends have implications for short and long-term pulpwood demand.

In addition, solid wood end-product markets are closely tied to housing (while forestland markets are not). In theory, however, the housing market can be linked to timber prices through the derived demand for lumber and manufactured wood product such as plywood and OSB. For starters, we can identify a positive relationship between lumber prices, structural panel composite prices, and housing starts (Figure 4). Between 2000 and early 2007, the correlation between these indices ranged from 0.62 to 0.64, tracking together during both market growth and recent housing market declines.

Figure 4. Lumber, Plywood and Panel Prices and US Housing Starts<sup>6</sup>



## CONCLUSION

A once integrated industry continues to fragment. Investors have identified opportunities to focus on specialized assets in niche geographic and product markets. Investment vehicles such as public and private REITs have improved forestland liquidity and opened the door to a wider range of investors. We do not view these industry changes as a disconnect; we view the trend as a recognition that different types of assets operate in different markets and require different types of skills. Separating forestlands from mills is analogous to separating steel mills from automobile manufacturing. Rather, the story told indicates that forest industry assets are moving towards their natural homes where they can be managed with greater transparency and efficiency.

<sup>6</sup> Data sources: Random Lengths; US Census Bureau

It is true that forest assets have not declined in demand or value to the extent that forest products have, but this also is not proof of a disconnect. Rather, it reflects the fact that the forestland investment industry is less mature than the forest products industry. We still see new forms of creative financing, new players, new geographies, and new products on the forestland investment side. We see some of the same on the forest industry side, but to a much lesser extent.

Two themes emerged from the World Forestry Center meeting this fall. Developing markets for forestland investment in less “safe” regions of the world, and a lot of talk about bio-energy and carbon markets. Investors who once were very active in the US are now looking for alternative products, as 5% real returns on domestic forestlands no longer make sense to them. On the other hand, some investors are encouraged by recent sawmill investments in the Pacific Northwest, which bodes well for fundamental returns from well-placed forestlands in that region. A large chip producer recently referred to the North American pulp and paper industry as being in a “fighting retreat,” and the picture may indeed look rather glum when contrasted to investments in the Southern Hemisphere. But forest investors and the forest industry firms looking to position themselves in new products may find that this industry rationalization produces opportunities here in the US, in the safest of geographies where forestlands produce the most diverse array of potential returns.

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Editor: Brooks C Mendell, PhD, Associate of James W. Sewall and Principal of Forisk Consulting, [bmendell@forisk.com](mailto:bmendell@forisk.com)

Producer: Bret P Vicary, PhD, MAI, Vice President, James W. Sewall Co. (207) 827-4456 [bret@jws.com](mailto:bret@jws.com) [www.jws.com](http://www.jws.com)