accenture

High performance. Delivered.

The Forest Factory:

Rethinking the Forest to Find New Value

By Jay Millen, Paul Sheridan and Luke Leslie

• Consulting • Technology • Outsourcing

In recent years, pulp and paper producers have been looking closely at the forests they own in mature markets such as the United States and Western Europe, and in many cases, they conclude the wisest course is to sell.

But evolving economic realities are bringing new variables into the equation. As a result, companies that simply follow the current conventional wisdom of shedding forest real estate may be walking away from significant and growing sources of value, and limiting their ability to build high-performance businesses over the long term.

The trend toward divesting forest assets is driven by a number of real issues facing owners of timberland in Europe and North America. These issues include the rising costs of landed crop protection and mechanical harvesting, the volatile price of harvested timber, and environmental concerns over harvesting—all of which raise fundamental questions about the future value of forests in mature markets.

By selling off those assets, the conventional thinking says, companies can focus on reducing the cost of fiber by sourcing from less expensive areas such as Russia, Poland, and countries in Latin America and Asia. Such divestment frees up cash from what is seen as a questionable long-term investment, and enables companies to distribute the proceeds to investors or use them for other business investments. The proceeds from such divestments can be considerable: From 2000 to 2005, for example, Georgia-Pacific and International Paper each earned about US$4 billion from the sale of timberland (see Table 1).

That divestment strategy is based on the traditional value streams associated with owning the forest, such as lumber, pulp and chemical by-products. But today, that list is essentially incomplete, and it represents only one aspect of the forest's broader value. Accenture believes that to understand the forest's real worth in the coming years, companies need to consider developments in the areas of environmental policy and energy, and the new value streams they promise to bring forest owners.

Table 1. Representative Timberland Sales, 2000–2005

Company	Acres (000)	Value/US$ acre	Total (US$ million)
Boise Cascade	2,200	750	1,650
Georgia-Pacific	4,720	847	4,000
International Paper	4,900	816	4,000
Louisiana-Pacific	301	683	206
PCA	385	649	250
Sappi	900	200	180
Stora Enso	300	473	142
Weyerhaeuser	736	1,145	843

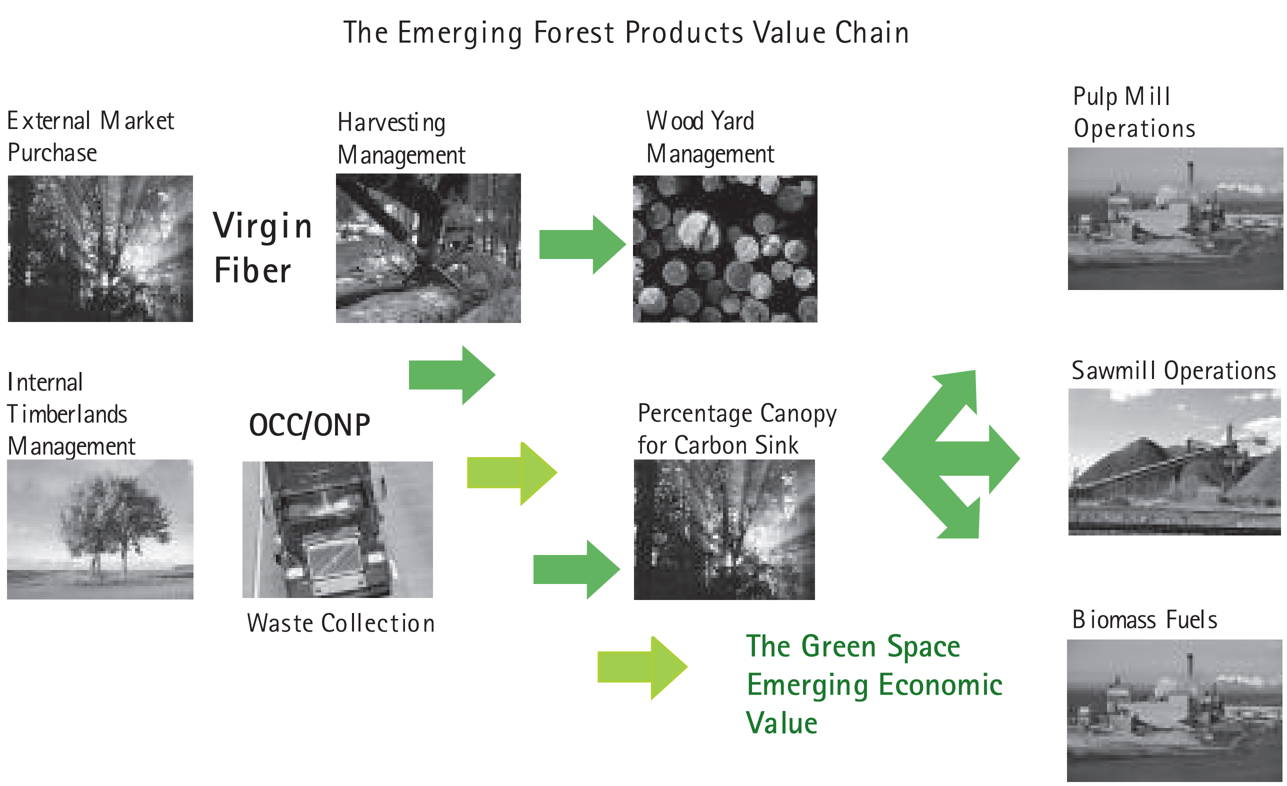
Source: Accenture Research, Company Annual Reports, Press Releases

Finding the new value

In this more comprehensive view of the forest, there are two new basic sources of value for companies to consider: the emerging carbon-credit trading system, which values the oxygen production and carbon-sink qualities of the forest; and the "forest refinery," that is, the use of wood and recovered fiber as a source for biomass fuel (see Figure 1). Accenture research suggests that companies that proactively manage these areas could add 10 to 30 percent of economic value to their forest holdings.

By fundamentally rethinking how they gain equity from the forest, companies may be able to tap into these significant new sources of value. That, in turn, can help them address shareholder pressures for improved returns, and ultimately help them become high-performance businesses—delivering sustainable results and consistently outperforming their peers over time.

Figure 1. New Sources of Economic Value from the Forest



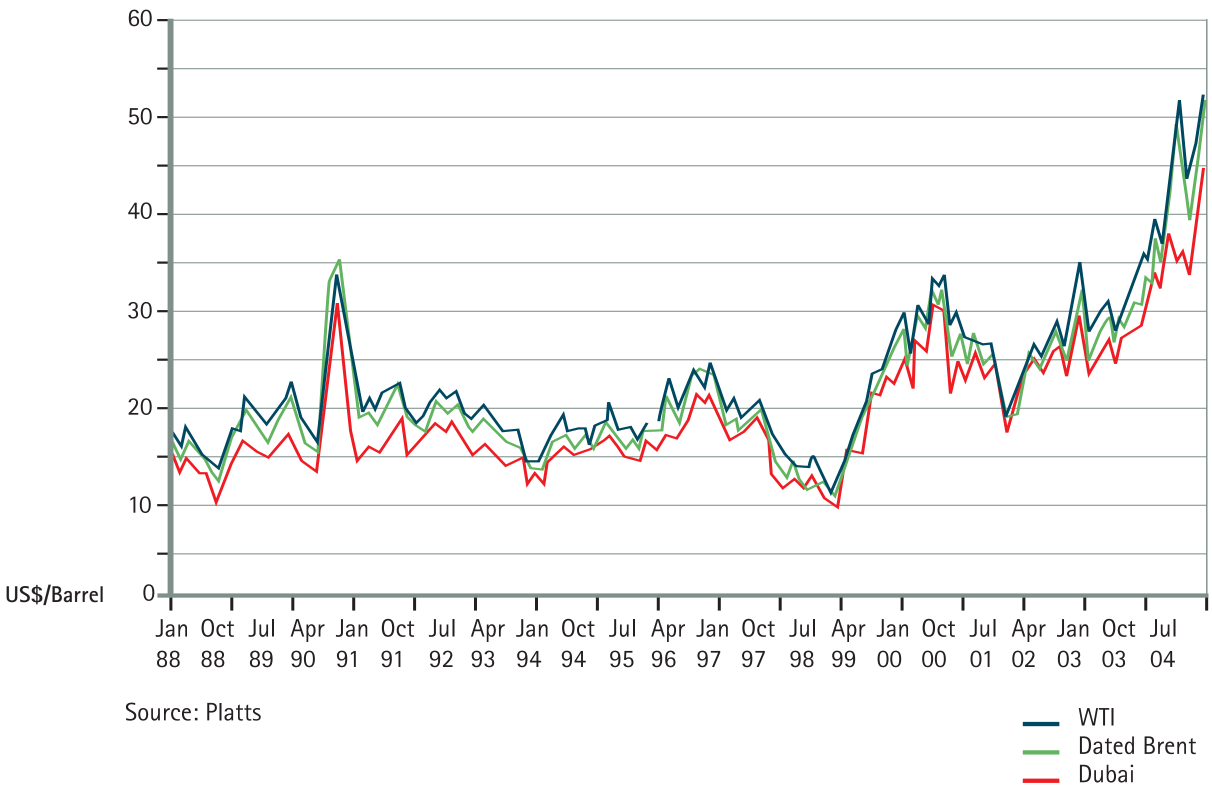
The changing landscape

No one can predict the future with absolute certainty, of course, but a number of factors make it likely that these new value streams will increase. For example, the recently signed U.S. Energy Policy Act of 2005 and potential global environmental agreements (such as a modified Kyoto Protocol that is looking to require companies to "pay" for carbon dioxide emissions) make carbon-credit trading increasingly viable. In addition, with relatively straight-forward harvest-management and crop-rotation techniques, the carbon-credit value stream can coexist with the traditional "extraction" value stream. This allows companies to ensure that approximately 80 percent of their forest lands are available for carbon credits without limiting the availability of lumber and pulp.

For its part, the biomass fuel value stream is likely to benefit from rising oil costs, which make alternative energy sources more attractive. Oil prices have been fluctuating well above US$50 a barrel for more than a year (see Figure 2). Although these increases have long been viewed as cyclical, there is now a growing consensus that this actually represents a structural change in the market, and high oil prices are here to stay.

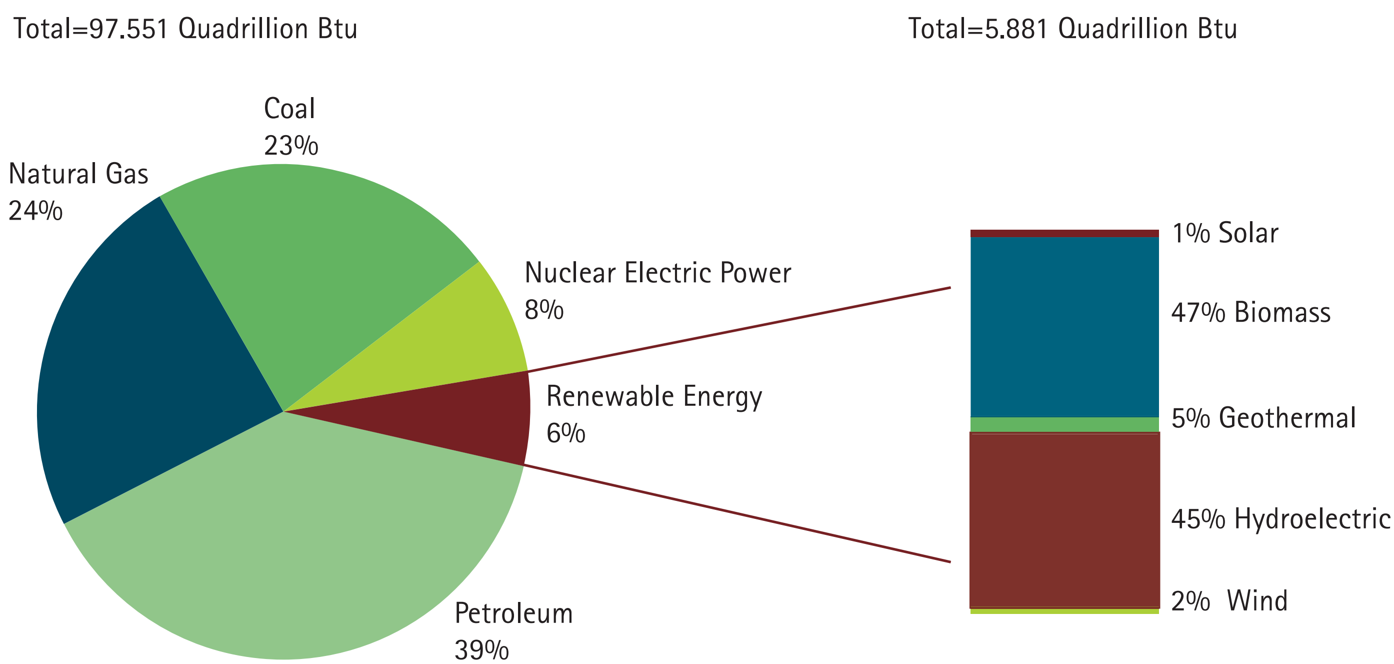
The move toward biomass fuels also is getting a boost from various "green" energy incentives already in place in many developed economies. Pressure is growing in many parts of the world to increase the use of renewable energy sources, and the governments of Sweden, Finland and Germany have all sponsored major electricity-generation projects for (or using) biomass fuels. These fuels already account for nearly half the energy produced from renewable sources in the United States (see Figure 3).

Figure 2. Average Monthly Oil Prices, 1988–2005



Source: Platts

Figure 3. Biomass Fuel and Total Energy Consumption/Energy Supply, 2002



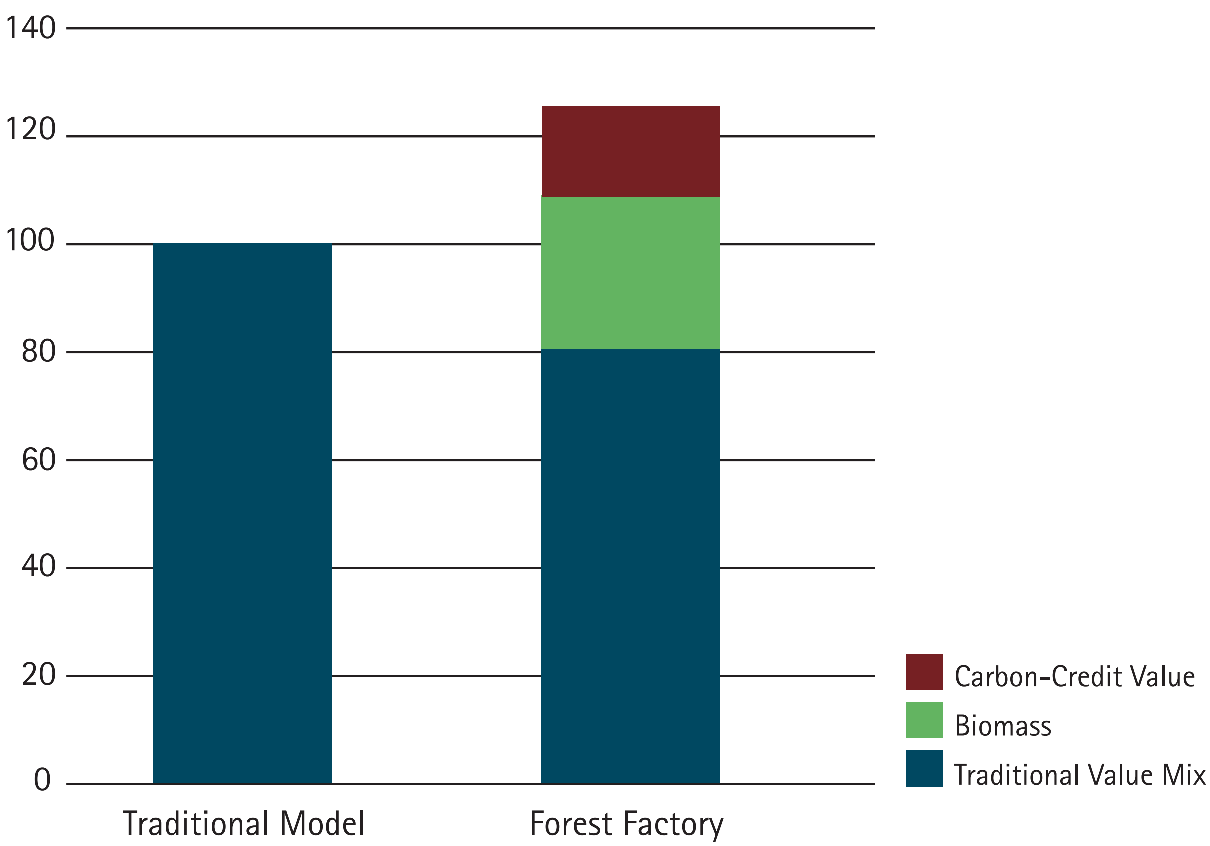
Source: U.S. Energy Information Administration's Renewable Energy Annual 2002

From forest to forest factory—and high performance

Accenture's extensive industry experience suggests that these developments mean that companies need to move to a more multifaceted view of forest assets. They need to evaluate their holdings not just as a static resource, but rather as a dynamic "forest factory" that actively produces value in three streams: traditional wood/pulp products, biomass fuels and carbon-credit trading. In Accenture's view, companies need to factor in both the existing traditional value and the potential value that these new value streams will bring, and weigh the two together. Our research has found that companies that can balance the needs of today and tomorrow—and simultaneously manage across near-, medium- and long-term time horizons—possess a fundamental characteristic of high-performance businesses.

Accenture believes that by taking this comprehensive view, companies are likely to find that even though the traditionally calculated value of their holdings in mature markets is declining, the new value streams will more than make up for that decline (see Figure 4).

Figure 4. The Forest "Value" Stack: Illustrative Incremental Value per Hectare on a Baseline of 100



Armed with these forward-looking views and more complete calculations, companies can then create the business case, investment strategies and partnership programs needed to make the best use of their forest assets.

If they decide to retain their holdings, they can ensure they have the mechanisms in place to extract the full value from the forest factory. Above all, they can avoid walking blindly away from an important source of value and, ultimately, achieve high performance.

Jay Millen is a partner and the industry program lead for the Accenture Forest Products industry group. He has spent the last decade focused on the paper and packaging value chain. Prior to working with Accenture, Mr. Millen held a variety of leadership and staff roles with global forest products companies. He can be reached at jonathan.a.millen@accenture.com.

Paul Sheridan is a senior manager with the Accenture Supply Chain Management service line and the Forest Products industry group. Mr. Sheridan has been focused on the forest products sector and supply chain excellence for the past four years. Prior to joining Accenture, he held a variety of leadership and staff positions in the merchant banking, industrial construction and international business development sectors. He can be reached at paul.sheridan@accenture.com.

Luke Leslie is an analyst with the Accenture Resources operating group and Supply Chain Management service line. He has recently completed a number of assignments in post-merger integration execution focused on the supply chain and operations components of the paper, packaging and merchant businesses. He can be reached at luke.leslie@accenture.com.

About Accenture

Accenture is a global management consulting, technology services and outsourcing company. Committed to delivering innovation, Accenture collaborates with its clients to help them become high-performance businesses and governments. With deep industry and business process expertise, broad global resources and a proven track record, Accenture can mobilize the right people, skills and technologies to help clients improve their performance. With more than 123,000 people in 48 countries, the company generated net revenues of US$15.55 billion for the fiscal year ended Aug. 31, 2005. Its home page is www.accenture.com.

About the Accenture Forest Products industry group

The Accenture Forest Products industry group helps clients in the lumber, pulp, papermaking, converting and packaging segments of the industry develop and implement new business strategies, manage complex change initiatives, and integrate processes and technologies to achieve higher levels of performance.

The views and opinions expressed in this article are meant to stimulate thought and discussion. Because each business has unique requirements and objectives, these ideas should not be viewed as professional advice with respect to your business.

12455318