Export Trends and Health of the Pacific Northwest Forest Sector

The Pacific Northwest (PNW) forest sector is strategically linked to Pacific Rim markets. Rather than compete with the US South and interior Canada in delivering wood products to eastern and southern US markets, the PNW has focused its attention on Asia. Until recently, Asia had the world's highest sustained growth. However, as a result of the Asian financial crisis, which began in 1997, US exports to Asia have substantially reduced. The crisis has compounded the negative impacts of the harvest restrictions, which began in 1990. The restrictions are intended to protect the habitat of endangered species. Both the Asian financial crisis and the harvest constraints are forcing long term structural changes in the forest industry. Understanding these changes is important to maintaining the economic and biological health of the forest sector.

The Impact of the Asian Financial Crisis

US forest product exports to Japan, the largest export market, declined from $4.8 billion in 1996 to $2.8 billion in 1998, (-42%). During the same time period exports to South Korea, the third largest market for US wood products, declined from $963 million to $538 million (-52%). The only Asian market to avoid the crisis was China. US exports to China increased from $474 million in 1996 to $538 million in 1998 (+13%). While the Asian recession has forced substantial structural change in the PNW, such as permanent closure of many businesses, firms who survive are expected to increase their sales as the Asian economy rebounds

The Impact of Harvest Restrictions

Since timber harvest restrictions began to be implemented in 1990 to protect endangered species, harvest volumes have declined 30% in Washington and over 40% in Oregon from what were thought to be sustainable harvest levels. Lower harvest volumes resulted in substantial losses to logging and lumber processors and raised the cost of wood for secondary processors, reducing their competitiveness. Prior to the Asian crisis, the higher prices resulting from the reduced harvests mitigated some of the economic losses to timber producers. But they also motivated suppliers from around the world to make investments and increase production rates. Since the Asian crisis we are beginning a second round of long-term structural adjustments aimed at restoring cost competitiveness at reduced harvest levels and more normal prices.

The effects of these two issues on business income, exports, employment and forest health in the PNW are ongoing topics of analysis. The summary below is based on the report: *Export Trends and the Health of the Pacific Northwest Forest Sector* (WP75), which examines the data on changing export trends, supply and demand shifts and competitiveness, due to policies being implemented to promote the protection of endangered species.

Secondary Wood Products

Secondary wood product exports (doors, windows, joinery, moldings, furniture, cabinets, prefabricated components and prefabricated housing) increased to $320 million by 1996, a gain of over 100% in four years, largely driven by the Japanese government beginning to deregulate their home construction market. These gains were small in comparison to $3 billion in primary product exports, but they provide evidence of growing export opportunities. However, as shown in Figure 1, these gains did not last. By 1997-1998 exports declined substantially. On a positive note, as the economic recovery in Japan and Asia stimulates consumer demand, and deregulation continues to open these markets, an increase of penetration from current levels of about 1% of their market to levels more comparable with primary products (10-20%) should be possible. The potential for a strong recovery should be sustainable over many years.

While secondary exports to Japan have increased overall, the PNW's share of the Japanese market declined 23% as Canadian producers' share increased, making Canada a formidable competitor in secondary manufactured wood products. Canadians have been able to take advantage of higher PNW wood costs, fluctuating exchange rates, and stronger support of the forest products sector from their government and from within the industry.

Revenue from secondary manufacturing in Washington State (inflation adjusted) has grown at nearly 3% per year, despite the constraints by harvest reductions and the higher cost of wood. A substantial portion of the growth is due to increasing exports.

Revenue from secondary manufacturing appears to have fallen below potential by as much as 15%. Even so, the sector has not been nearly as severely constrained as the primary processing sector. While exports could potentially increase by several billion dollars with only modest penetration of the Asian markets, declining competitiveness with Canada and other supplier regions may substantially reduce the PNW's growth potential.

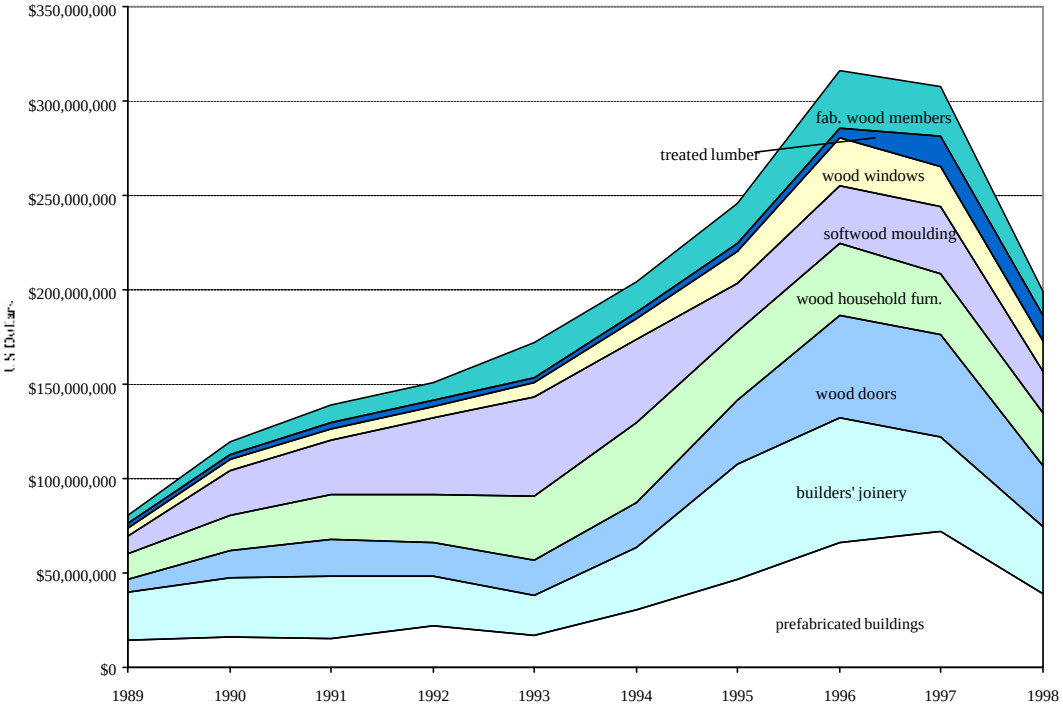

Figure 1. Secondary exports from the Pacific Northwest to all destinations, 1989-1998
(US Dept. of Commerce 1999).

Primary Wood Products

Primary product export volumes also declined significantly as a consequence of harvest constraints. Timber and product prices increased as available volume decreased, which offset some of the losses in revenue for a few years. High timber prices allowed companies to harvest higher cost timber stands, requiring more workers, which reduced employment losses in rural timber dependent areas. However these offsets were short lived as timber prices declined substantially in 1997-98 with the Asian crisis, forcing another round of structural changes.

Lumber production did not decline nearly as much in Washington State as in Oregon because substantial volumes of log exports were diverted from Washington ports to local mills, which almost offset the decline in local harvest. While the decline in log and lumber export revenues has been substantial (almost $2 billion) very strong demand from the US housing market has helped maintain high domestic lumber prices. Nevertheless, lumber margins in the 1990s have generally been below the cash flow levels needed to sustain capacity, resulting in more mill shutdowns and a lower base of installed mill capacity. Logging and processing costs have increased by almost 20% relative to the US South, providing a direct measure of declining competitiveness and the need for additional restructuring. Much of the decline in log exports is linked to restructuring around the

world following higher log prices during the early 1990s. Export premiums once paid for hemlock logs may never be restored as the market has shifted to other suppliers (Russia, Europe, New Zealand and Chile). Even spruce and fir export prices may not be fully restored with economic recovery in Asia, as the greater emphasis on pre-cut construction has shifted preferences to more stable wood such as dried lumber and engineered products.

The countervailing duty and quota agreement between the US and Canada has also affected US competitiveness in international markets. The agreement limits the amount of lumber Canada can export to the US duty free. While this quota provides protection for US lumber manufacturers, it forces Canadian producers to sell excess supply at lower prices to offshore markets, taking away the logistics and quality advantage the PNW once held. As Canada's domestic lumber prices have dropped, Canadian producers exported more lumber and secondary products to the Pacific Rim. The quota limitation on Canadian lumber to the US accelerated the shift from US log exports to lumber exports from Canada and Europe as Japanese buyers saw high US log and lumber prices relative to other suppliers. When US markets ultimately weaken PNW log and lumber producers will feel the full effects of this loss in competitiveness in the Asian markets they once dominated. The US market share of logs and lumber in Japan has declined from 56% in 1989 to 31% in 1998, a 25 percentage point decline, as Europe gained share by 11 percent, Canada by 7 percent, and other suppliers by 7 percent.

Business Income and Employment

Overall, business income in the forest sector did not decline as much as harvest rates. High prices partially offset the negative impacts of the early harvest declines. Changes over a five-year period before the harvest declines (1986-1991) and after (1992-1997) show that Washington's timber harvest volume declined 31% but logging employment declined only 22% (figure 2). Both logging and processing costs have increased relative to the US South resulting in a reduced ability to compete. If the earlier level of production efficiency was restored, Washington State could lose another 2,000 rural logging jobs.

In Washington and Oregon, since 1992, there have been approximately 12,600 jobs lost in both primary processing and in indirect rural jobs. Unemployment rates are still 6% higher in timber-dependent communities than in urban communities. New timber harvest restrictions to protect salmon populations, combined with industry restructuring to make PNW production costs competitive will compound already high employment losses and regional disparity. The 66% increase in disparity between urban and timber rural county incomes experienced by 1997 will almost certainly worsen before adjustments to timber harvest reductions have been absorbed.

While the PNW has experienced losses in revenue, employment, and market share, the region still maintains a fundamental long-term comparative advantage in growing timber and accessing international markets. Once the lagging adjustment process is complete, an increase in income from secondary manufacturing, improvement in product yields, and higher valued exports should be restored. Unfortunately, the evidence suggests that the structural adjustments to meet new regulations and restore competitiveness are not yet complete.

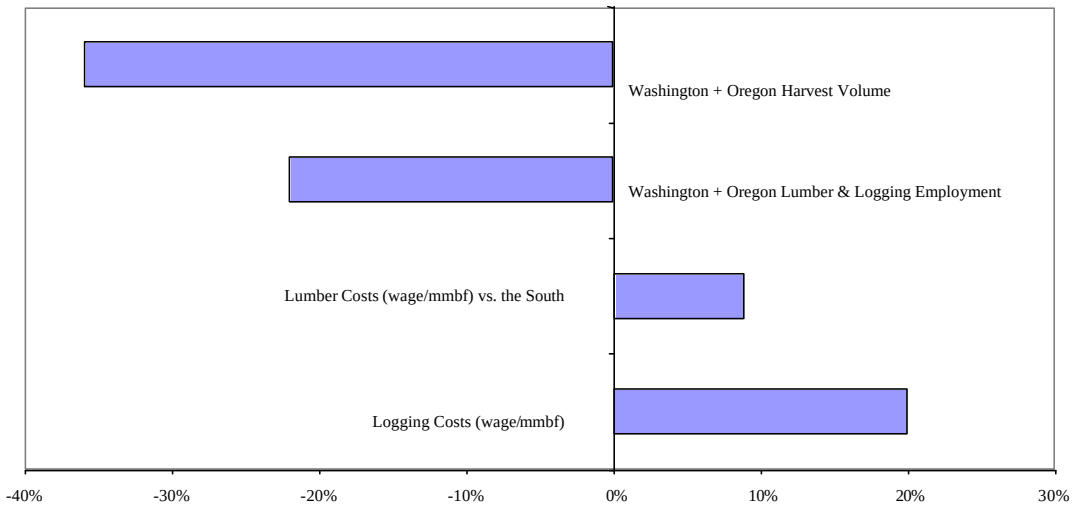

Figure 2. PNW change from 1986-1991 to 1992-1997 in harvest, employment, and costs. (CINTRAFOR 1999)

Increased Old-Forest Habitat for Endangered Species

Recent federal and state regulations have reversed the trend of declining old forest habitat. However, the process of restoring the forest habitat is going to be slow and costly. Regulations focus on keeping reserves, rather than provide incentives for active management to restore critical habitat. Simulations for the westside of Washington show late seral structures of importance to endangered species increasing from 11% of the acres to 18% by the 5th decade and 33% by the 10th decade. Reserves age slowly without the benefit of periodic fires and other disturbances that in pre-European times contributed to the creation of diverse forest structures. Reserve stands that are now too dense for good habitat will remain in this condition for many decades. Simulations of active management strategies to restore habitat on at least some acres show more old forest habitat conditions sooner and at a lower cost. More rapid deployment of new technology in rural areas affecting timber production, forest protection, and habitat restoration will be critical to future environmental progress as well as the impact on rural communities. To provide better insights on how to increase the rate of environmental progress or reduce the negative economic consequences that have resulted from recent policies, Washington State could benefit from a more systematic effort to assess environmental progress and economic sustainability.

Other Perspectives

While taxes remain a large concern to forest landowners, changes in regulatory impacts in the last decade have had much larger impacts than taxes. Concerns over accelerated land conversions and sales by small non-industrial forest owners have increased. Harvest rates for non-industrial private forest owners doubled in the 1990s to unsustainable rates. While the several year period of high prices before the Asian crisis provided a market opportunity for liquidation of mature timber, it also provided an offset to the landowners asset losses from more stringent regulations. With a future expectation of lower prices but higher regulatory costs, the motive for small owners to manage the land for timber rather than sell to larger owners or to real estate developers will be reduced.