**C I N T R A F O R**

# Working Paper 118

**Exploring the Market Potential of Pacific Silver Fir in the US Residential Decking Market**

**Indroneil Ganguly, Ivan Eastin, Pablo Crespell and Chris Gaston. 2010**

**Executive Summary**

### Overview

The demand for decking and fencing materials is driven by several factors, including the macroeconomic environment, demographics, construction expenditures, and the repair and remodel sector. In addition, competition within the decking and fencing markets has recently been significantly altered by regulatory constraints on the forest products industry that have restricted harvest levels, by increasing imports of softwood lumber and by expanding competition from non-wood substitute materials. These last two factors are likely to have the greatest impact on the specification and use of decking and fencing materials in the mid to long term as the markets adjust to the changing regulatory environment and changing consumer perceptions and preferences. This report will explore the extant literature related to the demand for decking and fencing materials in the residential, non-residential, public and non-building segments of the construction industry.

### US Decking Market

The demand for decking products is projected to increase from 4.7 billion board feet (bbf) in 2000 to 5.6 bbf in 2010, a 19.3% increase over the ten year period. This market expansion will not be distributed evenly across the three major types of deck materials, however. Whereas wood-plastic composite decking (WPC) is expected to increase by an astronomical 491% and plastic decking by a healthy 152%, the demand for wood decking is expected to decline by 8.5%. Further, the demand for redwood is projected to decline by over 15% between 2000-2010, although the decline in the demand for redwood lumber is attributed to supply constraints rather than declining demand. These demand outlooks are driven by two fundamental end-user attributes: durability (long-deck life) and low maintenance. Very little consideration was paid to price and price sensitivity of either new home builders or home owners. As a result, these demand estimates are more heavily weighted towards the higher priced substitute materials than the actual market situation might otherwise justify, particularly in the 2005-2010 period.

The primary construction application for decking is repair and remodel (approximately 86%) followed by new home construction (approximately 14%). While the demand for decking products in new construction is expected to experience strong growth between 2000 and 2010, the sheer size of the repair and remodel market make it a much more attractive market segment for producers. In addition, new home builders are a much more price sensitive set of buyers compared to home owners given the nature of the project expenditures. In addition, decks on new homes tend to be smaller than repair and replacement deck projects.

Residential construction is the primary market for decking materials, followed by non-building projects (docks, marinas, park structures, etc.) and non-residential construction. The demand for decking materials in the residential market is expected to grow by 24.3% between 2000 and 2010 while demand is expected to grow by just 6.9% in the non-building market. Again, contractors in the non-building segment are much more price sensitive given the nature of the bidding process in these types of projects.

Almost 80% of decking material is installed by professionals as opposed to homeowners (DIY). While demand is expected to grow substantially in both segments, the highest growth is projected to occur within the DIY segment (27.7%) rather than the professional segment (15.9%). Given the profit constraints facing most professional installers, this segment of the market tends to be more price sensitive than the DIY segment.

Finally, the deck market can be segmented into deck platforms versus rails and accessories (benches, stairs, planters, etc). It is important to note that only 59% of the total demand for decking materials is derived from the construction of deck platforms. The remaining demand can be attributed to deck rails and accessories, suggesting that overall demand for a specific product may be influenced to a substantial degree by the availability of rails and accessory products manufactured from the same material. Growth in both of these market segments is expected to be strong.

The projections indicate that the largest demand region for decking products is the US south while the US west is the smallest demand region. Interestingly, the largest growth in demand for decking materials is expected to come from these two regions.