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FACT SHEET

Korean Market for 2x4 Homes And Interior Wood Products

Prior to the recent Asian economic downturn, Korea was a growing market for US wood exports. During 1997 South Korea (Korea) imported almost $300 million in primary and secondary processed solid wood products from the US, making it the third largest export market for US wood producers. The standard of living for most South Koreans has improved phenomenally since the end of the Korean War, and expenditures on housing and secondary processed wood products imported from the US have increased. The value of wood frame homes and secondary wood products from the US increased 203% from $14.5 million in 1990 to $43.8 million in 1997. As a result, exports of secondary processed products to Korea, as a share of total solid wood exports, increased from 3.9% in 1990 to 15.8% in 1998.

While the Asian economic crisis sharply curtailed prior financial growth in Korea, the crisis may have positive long-term impacts on future foreign investment and trade. There are several new policies that may directly impact the wood frame construction sector and the market for solid wood interior products. During the past year, the Korean government established a US $23.5 million (~27.8 billion won; US $1= 1184 won) home loan fund, removed a tax applied to owners of multiple homes, and eliminated a cap on the selling price of new apartments. Legislation has also been passed and programs have been established to encourage foreign investment. Foreign companies are now allowed to develop land in Korea, the limitation on foreign ownership of Korean companies has been increased from 50% to 100%, and the Korean government now requires financial institutions and large conglomerates or *chaebol* to adopt detailed cost accounting systems that are accessible to auditors.

Wood Frame Homes and Interior Goods

Concrete formwork is the leading use of wood in Korea, yet prior to the Asian recession the market with the greatest potential for growth appeared to be wood-frame residential construction. The 2x4 construction sector is small compared to other types of construction, yet 2x4 wood frame construction has increased significantly from its introduction to the Korean market. The number of western style wooden housing starts increased from 97 units in 1994 to approximately 800 units in 1996 and an estimated 1,100 homes in 1997. Prior to the economic decline 2x4 housing starts were expected to reach 1,200 in 1998. Instead, approximately 750 2x4 homes were built. Revenues from homes exported from the US increased from $2.2 million in 1992 to over $17 million by 1997. In addition, as indicated in table 1, floor area for wooden buildings increased from 100 m^2 to 179 m^2 between 1989 and 1997.

Table 1. Building permit floor area by construction material (1,000 m^2).

		Construction Material			
Year	Total	Concrete	Brick & Stone	Wooden	Other
1989	88,600	70,800	17,100	100	500
1990	116,400	92,900	22,200	100	1,200
1991	105,200	88,700	14,100	200	2,200
1992	94,700	80,100	11,400	200	3,000
1993	117,800	99,000	12,200	200	6,400
1994	116,211	102,727	8,527	123	4,854
1995	117,327	103,134	9,086	89	5,022
1996	113,820	101,940	7,193	131	4,557
1997	113,374	104,214	5,105	179	3,881

Source: Foreign Agricultural Service 1998.

According to interviews of wood frame construction companies, consumers generally buy prefabricated wood frame homes and interior finishes from the same country or supplier. Therefore, while no statistics on US share of the interior wood products market exist, it is estimated that since US manufacturers maintain approximately 60% of the 2x4 prefabricated wood frame home market, they also supply approximately 60% of the interior wood products for 2x4 wood frame home sector. US interior wood product manufacturers are significantly less competitive in the high-rise apartment sector where solid wood and composite products manufactured by lower cost domestic and Southeast Asian producers are common. The Korean mortgage system requires consumers to pay approximately 80% of the home price up front, and pay the remaining loan in 5-20 years. Therefore, many consumers cannot afford to purchase expensive finishes when they initially buy their apartment. Some US manufacturers report that consumers are beginning to replace domestically produced interior goods with US-made goods because they are not satisfied with the quality of domestically made products.

The most promising sector for solid wood interior products appears to be the single-family and low-rise multi-family residential construction sector. Single-family and low-rise multi-family homes comprised approximately 20% of the wood and non-wood housing units built in Korea in 1997. While the majority of consumers live in high-rise concrete apartments, more owners of single-family homes are purchasing higher priced solid wood products. Among owners of single family homes, product appearance and quality are more important than price. It is also much more difficult for foreign companies to break into the high rise apartment sector. The ability to extend financing to a construction company is often a determining factor for awarding contracts as opposed to low price or high quality products. Many Korean and non-Korean companies also report that it can be difficult to receive payment from large construction firms.

Viable End-Markets and Barriers to Entry

The Korean public's perception of wood frame homes is generally positive. Korean people view wood homes and wood in general as healthy and aesthetically pleasing. However, the high cost of building materials and restrictive financing limits single-family home ownership to the affluent.

Aside from the fact that many families cannot afford wood frame homes, there are several non-monetary factors that affect the widespread adoption of wood frame housing and non-structural wood products in Korea. The two most significant barriers are the Korean building code and lack of technical transfer. The existing building code places provisions on fire standards and accepted height and total floor area of wood frame buildings, yet it does not include detailed requirements for structural aspects such as proper engineering principles, material use, and foundations. The lack of a detailed building code leaves room for the possibility that construction companies that do not have a complete understanding of proper wood frame housing construction may build substandard homes. The impact of poorly built homes may be compounded by the absence of building inspectors for wood frame housing. While builders who construct dangerous homes can be criminally charged for any gross injuries, it may be only after damage occurs that building codes are enforced. A more likely scenario associated with poor construction is a dissatisfied customer. Given the small size of the wood frame home industry and the reliance on word of mouth advertising, the negative impact of a few poorly constructed homes can be widespread.

Lack of technical transfer can also constrain the growth of the 2x4 wood frame market. Korean carpenters are either good at concrete work (very rough carpentry) or good at finish work (very fine carpentry); they are less skilled with framing. Framing training, in addition to instruction regarding proper handling and storage of materials is critical to the long-term success of wood frame construction in Korea. There are a few carpenter-training programs in Korea, yet there are still many carpenters who do not understand the engineering and construction principles associated with properly building a 2x4 wood frame home. One way to disseminate more information about proper construction techniques within Korea is to train architects, professors, and construction workers in the US. Training should include architectural design, engineering design, framing techniques, and maintenance. It is important for technical transfer to be an integral part of promoting wood frame construction in Korea.

North America dominates the prepackaged wood frame home industry, yet North American suppliers must compete with many low-cost producers in the non-structural wood products market, making the market much more price sensitive. Lower-cost Southeast Asian producers dominate non-structural product imports. For example, in 1997, Indonesia and Malaysia supplied 80% of the $54 million imported wooden door market and almost 90% of wooden windows. In 1997, the US supplied 5% of the imported wood door market and 7% of imported wood windows. While US products are not cost competitive with Southeast Asian products on a volume basis, less wood can be used to deliver equivalent durability, making builder education an important part of product sales.

An open market is likely to have significant implications for product marketing. In general, US companies can increase their sales if they market their products in Korea more aggressively though increased advertising and builder training. Both Korean and US respondents agree that European, and Italian manufacturers in particular, are more aggressive in their approach to the Korean market, which has translated directly into greater market share.

More information regarding the Korean market for structural and interior wood products is available in CINTRAFOR WP69: The Korean Market for Interior Wood Products and in an upcoming CINTRAFOR Working Paper: An Assessment of the Korean Market for Value-Added Wood Products.