



USDA Foreign Agricultural Service

# GAIN Report

Global Agriculture Information Network

Template Version 2.09

Required Report - public distribution

**Date:** 7/11/2005

**GAIN Report Number:** KS5034

## Korea, Republic of

### Solid Wood Products

### Solid Wood Products Annual

### 2005

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**Report Highlights:**

Projected wood product consumption for 2005 is 27.4 million cubic meters (round-wood basis), of which 92 percent will be imported. The U.S. usually has about 9 percent of the import market, and is Korea's fifth largest supplier of forest products. Fire and construction code changes, due to become final before the end of 2005, will make it possible for the first time to build multi-story, multi-family wood-frame buildings in Korea. This should result in increased demand for U.S. wood products.

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Includes PSD Changes: Yes  
Includes Trade Matrix: Yes  
Annual Report  
Seoul [KS1]  
[KS]

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**SECTION I. SITUATION AND OUTLOOK**

Because high world oil prices have dampened prospects for Korean economic growth and due to consumer pessimism about the economy, the Korean Government revised downward its target for GDP growth in 2005 from an initial 5 percent to 4 percent. In the first quarter of 2005, the economy expanded by only 2.7 percent. In 2004, the GDP grew by 4.6 percent due mainly to an increase in exports. Per capita GDP increased from \$12,720 in 2003 to \$14,162 in 2004, principally due to the appreciation of the Korean Won. In October 2004 the government intervened in the housing market to curb speculation. Due to the economic slow down, and government attempts to cool down an overheated housing market, construction starts, which were up slightly in 2004, are expected to be sluggish in 2005.

The Korea Forest Service (KFS) projection for 2005 wood products consumption is 27.4 million cubic meters (CUM) (round-wood basis), composed of 25.1 million CUM of imported wood products and 2.4 million CUM of domestic products. 2005 imports of logs are projected at 6.7 million CUM and imports of lumber and processed wood are projected at 18.4 million CUM (round-wood equivalents). For 2006, domestic round-wood production is forecast at 2.6 million CUM, with softwoods (75 percent) and temperate hardwoods (25 percent) being the dominant species harvested. The Korean Government projects that by the 2030s, with proper management, sustainable domestic production should be able to satisfy more than 50 percent of total domestic demand. Two members of the Korean Plywood Industry, with the support of the Korea Forestry Service, can now produce plywood from domestic larch. Plans exist to expand the use of domestic timber for the production of plywood in the future.

In the first quarter of 2005, imports of wood products declined by 8 percent as compared to a year earlier. Further declines are expected for the remainder of 2005 as well because of slack construction, interiors and furniture demand. Nonetheless, U.S. exports to Korea are expected to remain at 2004 levels due to steady demand for softwood logs used in the construction of high-end buildings.

The Ministry of Construction and Transportation (MOCT) recently announced that effective April 6, 2005, building structure standards would be revised so as to allow the construction of wood-frame multi-story, multi-family houses, as well as other buildings such as hospitals, restaurants and schools. The revised regulations increase the height limitation for wood-frame buildings to 18 meters, with the maximum height of eaves set at 15 meters. Revisions, expected to be in place before the end of 2005, to MOCT fire codes (KS1611-1) for wooden structures, will also allow for taller wooden structures. These revisions are currently under the review of the Legislative Administration Agency. Due to these two important code changes, it will be possible to construct multi-family wood houses up to five stories tall. As a result of these code changes, several builders and developers are preparing to construct multi-story, multi-family wood houses, and imports of glulam and other wood products are expected to increase.

The Korean National Plant Quarantine Service (NPQS) announced that after June 1, 2005, it would enforce International Plant Protection Convention (IPPC) rules for imported softwood packaging materials (SWPM). The products affected include pallets, crates, wooden boxes, etc., which are used for import/export packaging.

Despite near-term weak demand, the import volume of wood products is expected to increase over the next three to five years in tandem with expectations that the Korean economy and construction will expand. One area expected to grow is the repair and remodeling market for existing buildings. Regulations to curb the demolition of older apartment complexes will encourage the repair and remodeling of existing buildings.

Note: For the purposes of this report, FAS/Seoul corrected obvious errors in official Korean Customs Service data.

## SECTION II. STATISTICAL TABLES

## Strategic Indicator Tables

## FOREST PRODUCT

## STRATEGIC INDICATOR TABLES FOR (KOREA)

(Please do not add/delete rows or columns -- note and other info must be added below row 110 -- thank you!)

## CONSTRUCTION MARKET

Country: South Korea

Report Year: 2005

|  | Previous<br>Calendar Year | Current<br>Calendar Year | Following<br>Calendar Year |
|--|---------------------------|--------------------------|----------------------------|
| Total Housing Starts (thousand units)                        | 464                       | 500                      | 500                        |
| --of which, wood frame (thousand units)                      | 2                         | 2                        | 2                          |
| --of which, steel, masonry, other materials (thousand units) | 462                       | 498                      | 498                        |
| --of total starts, residential (thousand units)              | 464                       | 500                      | 500                        |
| ----of residential, single family (thousand units)           | 34                        | 30                       | 30                         |
| ----of residential, multi-family (thousand units)            | 430                       | 470                      | 470                        |
| --of total starts, commercial (thousand units)               | 464                       | 500                      | 500                        |
| Total Value of Commercial Construction Market (\$US mil)     | 82,692                    | 87,845                   | 90,000                     |
| million)   | 11,630                    | 14,000                   | 15,500                     |

## FURNITURE &amp; INTERIORS MARKET

Country: South Korea

Report Year: 2005

|  | Previous<br>Calendar Year | Current<br>Calendar Year | Following<br>Calendar Year |
|--|---------------------------|--------------------------|----------------------------|
| Total Housing Starts (number of units) | 463,800                   | 500,000                  | 500,000                    |
| Total Number of Households             | 15,538,741                | 15,788,962               | 15,988,599                 |
| Furniture Production (\$US million)    | 4,400                     | 4,500                    | 5,000                      |
| Total Furniture Imports (\$US million) | 736                       | 900                      | 1,000                      |
| Total Furniture Exports (\$US million) | 384                       | 500                      | 600                        |
| Interiors Market Size (\$US million)   | 5,245                     | 5,929                    | 6,500                      |

## MATERIAL HANDLING MARKET

Country: South Korea

Report Year: 2005

|   | Previous<br>Calendar Year | Current<br>Calendar Year | Following<br>Calendar Year |
|---|---------------------------|--------------------------|----------------------------|
| Total Value of Industrial Output (\$US million) | 500                       | 600                      | 620                        |
| New Pallet Production (million units)           | 11                        | 12                       | 13                         |

**FOREST AREA****Country: South Korea****Report Year: 2005**

|   | <b>Previous<br/>Calendar Year</b> | <b>Current<br/>Calendar Year</b> | <b>Following<br/>Calendar Year</b> |
|---|-----------------------------------|----------------------------------|------------------------------------|
| Total Land Area (million hectares)                      | 10                                | 10                               | 10                                 |
| Total Forest Area (million hectares)                    | 6                                 | 6                                | 6                                  |
| --of which, Commercial ('000 hectares)                  | 4,910                             | 4,920                            | 4,930                              |
| ----of commercial, tropical hardwood ('000 hectares)    | 0                                 | 0                                | 0                                  |
| ----of commercial, temperate hardwood ('000 hectares)   | 1,660                             | 1,670                            | 1,680                              |
| ----of commercial, softwood ('000 hectares)             | 2,719                             | 2,700                            | 2,700                              |
| Forest Type   |                                   |                                  |                                    |
| --of which, virgin ('000 hectares)                      | 3,598                             | 3,590                            | 3,580                              |
| --of which, plantation ('000 hectares)                  | 2,300                             | 2,300                            | 2,300                              |
| --of which, other commercial (regrowth) ('000 hectares) | 500                               | 500                              | 500                                |
| Total Volume of Standing Timber (thousand cubic meters) | 468,167                           | 488,467                          | 510,000                            |
| --of which, Commercial Timber ('000 cum)                | 366,014                           | 380,000                          | 390,000                            |
| Annual Timber Removal ('000 cum) 1/                     | 2,037                             | 2,350                            | 2,600                              |
| Annual Timber Growth Rate ('000 cum)                    | 20,000                            | 20,000                           | 20,000                             |
| Annual Allowable Cut ('000 cum)                         | 1,300                             | 1,300                            | 1,300                              |

1/ If Removals exceeds growth rate, analyze impact in text.

**WOOD PRODUCTS SUBSIDIES****Country: South Korea****Year of Report: 2005**

|  | <b>Previous<br/>Calendar Year</b> | <b>Current<br/>Calendar Year</b> | <b>Following<br/>Calendar Year</b> |
|--|-----------------------------------|----------------------------------|------------------------------------|
| Total Solid Wood Export Subsidy Outlay (\$US million)            | none                              | none                             | none                               |
| Is there a ban on the export of logs, lumber, or veneer? 1/      | none                              | none                             | none                               |
| Are there export taxes (yes/no)? 2/                              | none                              | none                             | none                               |
| Total Wood Production Subsidy (\$US million)                     | none                              | none                             | none                               |
| Scope (thousands of hectares)                                    | none                              | none                             | none                               |
| Are there other wood products export expansion activities?<br>1/ | none                              | none                             | none                               |

1/ If yes, describe in report.

2/ If yes, identify in Tariff and Tax Strategic Indicator Table.

| Country: South Korea<br>Report Year: 2005               | Product<br>Description 1/ | Tariff<br>Current<br>Year | Tariff<br>Following<br>Year | Other<br>Import<br>Taxes/Fees | Total Cost<br>of Import 2 | Export<br>Tax |
|---|---------------------------|---------------------------|-----------------------------|-------------------------------|---------------------------|---------------|
| 4401  | Wood Chips, Fuel Wood 3/  | 2                         | 2                           | 12                            |                           | na            |
| 4403  | Roundwood 4/              | 2                         | 2                           | 12                            |                           | na            |
| 4404  | Sticks, etc.              | 5                         | 5                           | 12                            |                           | na            |
| 4405  | Wood Wool                 | 5                         | 5                           | 12                            |                           | na            |
| 4406  | Railway Ties              | 5                         | 5                           | 12                            |                           | na            |
| 4407  | Lumber                    | 5                         | 5                           | 12                            |                           | na            |
| 4408  | Veneer 5/                 | 5                         | 5                           | 12                            |                           | na            |
| 4409  | Finished Lumber           | 8                         | 8                           | 12                            |                           | na            |
| 4410  | Particleboard             | 8                         | 8                           | 12                            |                           | na            |
| 4411  | Fiberboard                | 8                         | 8                           | 12                            |                           | na            |
| 4412  | Plywood 6/                | 8                         | 8                           | 12                            |                           | na            |
| 4413  | Densified Wood            | 8                         | 8                           | 12                            |                           | na            |
| 4414  | Wooden Frames             | 8                         | 8                           | 12                            |                           | na            |
| 4415  | Packing Cases             | 8                         | 8                           | 12                            |                           | na            |
| 4416  | Casks                     | 8                         | 8                           | 12                            |                           | na            |
| 4417  | Tools                     | 8                         | 8                           | 12                            |                           | na            |
| 4418  | Builders' Joinery         | 8                         | 8                           | 12                            |                           | na            |
| 4419  | Tableware/Kitchenware     | 8                         | 8                           | 12                            |                           | na            |
| 4420  | Wood Marquetry            | 8                         | 8                           | 12                            |                           | na            |
| 4421  | Other Articles of Wood    | 8                         | 8                           | 12                            |                           | na            |
| 4422  | na                        | na                        | na                          | 12                            |                           | na            |
| 4423  | na                        | na                        | na                          | 12                            |                           | na            |
| 4424  | na                        | na                        | na                          | 12                            |                           | na            |
| 4425  | na                        | na                        | na                          | 12                            |                           | na            |
| Pre-fabricated Houses, a<br>subsection under chapter 96 |                           | 8                         | 8                           | 12                            |                           | na            |

1/ Insert additional lines for Commodity tariff identification should tariffs vary within the four-digit designation for major products exported by the U.S. (e.g., 4412.19: softwood plywood 3%, 4412.XX: other plywood, 9%).

2/ Calculate as tariff plus other import taxes/fees assuming a commodity value of \$100.

3/ Quota tariff reduced to 1 percent for wood chips (for pulp).

4/ The tariff on tropical hardwood logs is 1 percent. Quota tariff for all imported logs is zero.

5/ Quota tariff reduced to 3 percent for veneer thicker than 0.5 mm within 310,000 CUM, and temperate hardwood veneer thicker than 2 mm within 100,000 CUM.

6/ Adjusted tariff increased to 13 percent for thicker than 6 mm.

Source: Korea Customs Service, FAS/Seoul



PS&D Tables and Trade Matrices

Temperate Hardwood Logs PSD

### PSD Table

|                          |  |         |                         |          |                |          |                   |
|--------------------------|--|---------|-------------------------|----------|----------------|----------|-------------------|
| <b>Country</b>           | <b>Korea, Republic of</b>                        |         |                         |          |                |          |                   |
| <b>Commodity</b>         | <b>Temperate Hardwood Logs</b> 1000 CUBIC METERS |         |                         |          |                |          |                   |
|                          | 2004   | Revised | 2005                    | Estimate | 2006           | Forecast | UOM               |
|                          | USDA Official [ Estimate [DA Official [          |         | Estimate [DA Official [ |          | Estimate [New] |          |                   |
| <b>Market Year Begin</b> | 01-2004  |         | 01-2005                 |          | 01-2006        |          | MM/YYYY           |
| Production               | 650  | 678     | 700                     | 700      | 0              | 750      | 1000 CUBIC METERS |
| Imports                  | 220  | 203     | 220                     | 200      | 0              | 200      | 1000 CUBIC METERS |
| TOTAL SUPPLY             | 870  | 881     | 920                     | 900      | 0              | 950      | 1000 CUBIC METERS |
| Exports                  | 0  | 0       | 0                       | 0        | 0              | 0        | 1000 CUBIC METERS |
| Domestic Consumption     | 870  | 881     | 920                     | 900      | 0              | 950      | 1000 CUBIC METERS |
| TOTAL DISTRIBUTION       | 870  | 881     | 920                     | 900      | 0              | 950      | 1000 CUBIC METERS |

Import Trade Matrix- Temperate Hardwood Logs

### Import Trade Matrix

**Country** Korea, Republic of  
**Commodity** Temperate Hardwood Logs

Time Period **JAN/DEC** Units: **1,000 CUM**

Imports for: **2003** **2004**

U.S. **34** U.S. **32**

Others Others

|              |    |              |     |
|--------------|----|--------------|-----|
| Russia       | 15 | Russia       | 21  |
| Papua New Gu | 45 | Papua New Gu | 26  |
| Solomon Is.  | 51 | Solomon Is.  | 103 |
| Malaysia     | 20 | Malaysia     | 8   |
| China        | 2  | China        | 1   |
|              |    |              |     |
|              |    |              |     |
|              |    |              |     |
|              |    |              |     |

Total for Others 133 159

Others not Listed **13** **12**

Grand Total 180 203

**Temperate Hardwood Log Imports From the U.S.**

| Korea: Temperate Hardwood Log Imports From the U.S.<br>(CUM and US\$ Thousand) |        |        |        |        |        |        |
|--|--------|--------|--------|--------|--------|--------|
| Species  | 2002   |        | 2003   |        | 2004   |        |
|  | Volume | Value  | Volume | Value  | Volume | Value  |
| Oak  | 910    | 1,525  | 3,000  | 2,022  | 4,730  | 3,303  |
| Ash  | 646    | 572    | 1,460  | 720    | 503    | 777    |
| Walnut   | 6,815  | 6,271  | 6,148  | 6,338  | 3,980  | 4,112  |
| Aspen  | 0      | 0      | 50     | 5      | 868    | 176    |
| Poplar   | 172    | 43     | 472    | 112    | 1,240  | 131    |
| Maple  | 13,800 | 4,534  | 11,498 | 4,503  | 9,960  | 4,058  |
| Other  | 9,540  | 12,219 | 11,785 | 9,558  | 10,798 | 7,294  |
| Total  | 31,883 | 25,164 | 34,413 | 23,258 | 32,079 | 19,851 |

Source: Korea Customs Service

**Temperate Hardwood Log Imports From the U.S.**

| Korea: Temperate Hardwood Log Imports From the U.S.<br>(CUM and US\$ Thousand) |                |       |                |       |
|--|----------------|-------|----------------|-------|
| Species  | 2004 (Jan-Mar) |       | 2005 (Jan-Mar) |       |
|  | Volume         | Value | Volume         | Value |
| Oak  | 634            | 1,151 | 1,120          | 806   |
| Ash  | 92             | 151   | 300            | 128   |
| Walnut   | 399            | 1,188 | 1,240          | 1,380 |
| Aspen  | 749            | 152   | 280            | 21    |
| Poplar   | 158            | 28    | 380            | 40    |
| Maple  | 1,041          | 973   | 2,580          | 899   |
| Other  | 2,504          | 1,803 | 2,522          | 1,963 |
| Total  | 5,577          | 5,446 | 8,422          | 5,237 |

Source: Korea Customs Service

Tropical Hardwood Logs PSD

### PSD Table

| Country<br>Commodity<br>Market Year Begin | Korea, Republic of<br>Tropical Hardwood Logs |               |               |               |               |               | UOM               |
|---|--|---------------|---------------|---------------|---------------|---------------|-------------------|
|   | 2004   |               | 2005          |               | 2006          |               |                   |
|   | Revised                                      | Estimate      | Revised       | Estimate      | Forecast      | Estimate      |                   |
|   | USDA Official                                | USDA Official | USDA Official | USDA Official | USDA Official | USDA Official |                   |
|   | 01-2004                                      | 01-2004       | 01-2005       | 01-2005       | 01-2006       | MM/YYYY       |                   |
| Production                                | 0  | 0             | 0             | 0             | 0             | 0             | 1000 CUBIC METERS |
| Imports                                   | 450  | 447           | 450           | 420           | 0             | 420           | 1000 CUBIC METERS |
| TOTAL SUPPLY                              | 450  | 447           | 450           | 420           | 0             | 420           | 1000 CUBIC METERS |
| Exports                                   | 0  | 0             | 0             | 0             | 0             | 0             | 1000 CUBIC METERS |
| Domestic Consumption                      | 450  | 447           | 450           | 420           | 0             | 420           | 1000 CUBIC METERS |
| TOTAL DISTRIBUTION                        | 450  | 447           | 450           | 420           | 0             | 420           | 1000 CUBIC METERS |

Import Trade Matrix- Tropical Hardwood Logs

### Import Trade Matrix

| Country           | Korea, Republic of     |                  |
|-------------------|------------------------|------------------|
| Commodity         | Tropical Hardwood Logs |                  |
| Time Period       | JAN/DEC                | Units: 1,000CUM  |
| Imports for:      | 2003                   | 2004             |
| U.S.              | 0                      | 0                |
| Others            | Others                 |                  |
| Solomon Is.       | 167                    | Solomon Is. 171  |
| Malaysia          | 125                    | Malaysia 118     |
| Papua New Gu      | 116                    | Papua New Gu 144 |
|                   |                        |                  |
|                   |                        |                  |
|                   |                        |                  |
|                   |                        |                  |
|                   |                        |                  |
|                   |                        |                  |
| Total for Others  | 408                    | 433              |
| Others not Listed | 26                     | 14               |
| Grand Total       | 434                    | 447              |

Softwood Logs PSD

### PSD Table

| Country<br>Commodity | Korea, Republic of      |                        | Softwood Logs      |             | 1000 CUBIC METERS  |                            | UOM               |
|----------------------|-------------------------|------------------------|--------------------|-------------|--------------------|----------------------------|-------------------|
|                      | 2004<br>USDA Official [ | Revised<br>Estimate [A | 2005<br>Official [ | Estimate [A | 2006<br>Official [ | Forecast<br>Estimate [New] |                   |
| Market Year Begin    | 01-2004                 |                        | 01-2005            |             | 01-2006            |                            | MM/YYYY           |
| Production           | 1150                    | 1359                   | 1200               | 1650        | 0                  | 1850                       | 1000 CUBIC METERS |
| Imports              | 6600                    | 5883                   | 6700               | 5000        | 0                  | 5000                       | 1000 CUBIC METERS |
| TOTAL SUPPLY         | 7750                    | 7242                   | 7900               | 6650        | 0                  | 6850                       | 1000 CUBIC METERS |
| Exports              | 0                       | 0                      | 0                  | 0           | 0                  | 0                          | 1000 CUBIC METERS |
| Domestic Consumption | 7750                    | 7242                   | 7900               | 6650        | 0                  | 6850                       | 1000 CUBIC METERS |
| TOTAL DISTRIBUTION   | 7750                    | 7242                   | 7900               | 6650        | 0                  | 6850                       | 1000 CUBIC METERS |

Import Trade Matrix- Softwood Logs

### Import Trade Matrix

Country Korea, Republic of  
Commodity Softwood Logs

|                   |         |             |          |
|-------------------|---------|-------------|----------|
| Time Period       | JAN/DEC | Units:      | 1,000CUM |
| Imports for:      | 2003    |             | 2004     |
| U.S.              | 331     | U.S.        | 460      |
| Others            |         | Others      |          |
| New Zealand       | 4087    | New Zealand | 3207     |
| Russia            | 1449    | Russia      | 1438     |
| Australia         | 526     | Australia   | 471      |
| Canada            | 167     | Canada      | 182      |
| Chile             | 6       | Chile       | 96       |
|                   |         |             |          |
|                   |         |             |          |
|                   |         |             |          |
|                   |         |             |          |
| Total for Others  | 6235    |             | 5394     |
| Others not Listed | 13      |             | 29       |
| Grand Total       | 6579    |             | 5883     |

**Softwood Log Imports From the U.S.**

| Korea: Softwood Log Imports From the U.S.<br>(CUM and US\$ Thousand) |         |        |         |        |         |        |
|--|---------|--------|---------|--------|---------|--------|
| Species  | 2002    |        | 2003    |        | 2004    |        |
|  | Volume  | Value  | Volume  | Value  | Volume  | Value  |
| Cedar  | 18,000  | 4,039  | 9,630   | 3,409  | 7,984   | 2,699  |
| Douglas Fir  | 26,000  | 8,189  | 30,915  | 6,743  | 32,145  | 8,447  |
| Hemlock  | 92,000  | 30,447 | 121,170 | 33,411 | 220,000 | 43,912 |
| Spruce   | 35,100  | 10,260 | 149,002 | 21,230 | 174,139 | 29,760 |
| Other  | 23,971  | 4,086  | 20,571  | 5,872  | 58,204  | 4,657  |
| Total  | 195,071 | 57,021 | 331,288 | 70,665 | 460,327 | 89,475 |

Source: Korea Customs Service

**Softwood Log Imports From the U.S. for Jan – Mar**

| Korea: Softwood Log Imports From the U.S. for Jan – Mar<br>(CUM and US\$ Thousand) |                |        |                |        |
|--|----------------|--------|----------------|--------|
| Species  | 2004 (Jan-Mar) |        | 2005 (Jan-Mar) |        |
|  | Volume         | Value  | Volume         | Value  |
| Cedar  | 1,115          | 418    | 680            | 311    |
| Douglas Fir  | 5,935          | 1,494  | 16,440         | 3,494  |
| Hemlock  | 52,100         | 9,715  | 48,201         | 10,407 |
| Spruce   | 35,842         | 6,139  | 25,930         | 7,552  |
| Other  | 7,013          | 1,303  | 1,767          | 3,943  |
| Total  | 102,005        | 19,069 | 93,018         | 22,213 |

Source: Korea Customs Service

**Value of Logs Imports per Country**

| Korea: Value of Logs Imports per Country<br>Unit: 1,000 US\$ |         |         |         |           |           |
|--|---------|---------|---------|-----------|-----------|
| Country  | 2002    | 2003    | 2004    | 2004(1-3) | 2005(1-3) |
| United States  | 81,920  | 94,499  | 109,619 | 24,767    | 27,451    |
| New Zealand  | 268,572 | 276,186 | 292,739 | 87,633    | 61,753    |
| Russia   | 100,285 | 103,507 | 134,092 | 35,667    | 33,308    |
| Malaysia   | 25,068  | 22,145  | 21,046  | 5,112     | 4,867     |
| PNG  | 18,129  | 17,161  | 20,431  | 5,616     | 4,467     |
| Chile  | 9,827   | 490     | 9,667   | 5,273     | 14        |
| Australia  | 44,010  | 35,112  | 41,412  | 15,506    | 11,616    |
| Solomon Is.  | 15,638  | 23,300  | 32,017  | 7,899     | 9,671     |
| Others   | 34,024  | 37,994  | 63,594  | 12,000    | 14,711    |
| Total  | 597,473 | 610,394 | 704,186 | 199,473   | 167,858   |

Source: Korea Customs Service

Temperate Hardwood Lumber PSD

### PSD Table

| Country<br>Commodity<br>Market Year Begin | Korea, Republic of<br>Temperate Hardwood Lumber 1000 CUBIC METERS |         |                          |          |                          |          | UOM               |
|---|---|---------|--------------------------|----------|--------------------------|----------|-------------------|
|   | 2004  | Revised | 2005                     | Estimate | 2006                     | Forecast |                   |
|   | USDA Official [ Estimate ]  |         | DA Official [ Estimate ] |          | DA Official [ Estimate ] |          |                   |
|   | 01-2004   |         | 01-2005                  |          | 01-2006                  |          |                   |
| Production                                | 64  | 59      | 64                       | 60       | 0                        | 60       | 1000 CUBIC METERS |
| Imports                                   | 120   | 104     | 120                      | 100      | 0                        | 100      | 1000 CUBIC METERS |
| TOTAL SUPPLY                              | 184   | 163     | 184                      | 160      | 0                        | 160      | 1000 CUBIC METERS |
| Exports                                   | 5   | 4       | 5                        | 5        | 0                        | 5        | 1000 CUBIC METERS |
| Domestic Consumption                      | 179   | 159     | 179                      | 155      | 0                        | 155      | 1000 CUBIC METERS |
| TOTAL DISTRIBUTION                        | 184   | 163     | 184                      | 160      | 0                        | 160      | 1000 CUBIC METERS |

Import Trade Matrix- Temperate Hardwood Lumber

### Import Trade Matrix

Country Korea, Republic of  
Commodity Temperate Hardwood Lumber

|                   |         |           |          |
|-------------------|---------|-----------|----------|
| Time Period       | JAN/DEC | Units:    | 1,000CUM |
| Imports for:      | 2003    |           | 2004     |
| U.S.              | 36      | U.S.      | 30       |
| Others            |         | Others    |          |
| China             | 45      | China     | 37       |
| Indonesia         | 13      | Indonesia | 12       |
| Canada            | 8       | Canada    | 4        |
| Malaysia          | 7       | Malaysia  | 13       |
|                   |         |           |          |
|                   |         |           |          |
|                   |         |           |          |
|                   |         |           |          |
| Total for Others  | 73      |           | 66       |
| Others not Listed | 9       |           | 8        |
| Grand Total       | 118     |           | 104      |

**Temperate Hardwood Lumber Imports From U.S.**

| Korea: Temperate Hardwood Lumber Imports From the U.S.<br>(CUM and US\$ Thousand) |        |        |        |        |        |        |
|---|--------|--------|--------|--------|--------|--------|
| Species   | 2002   |        | 2003   |        | 2004   |        |
|   | Volume | Value  | Volume | Value  | Volume | Value  |
| Oak   | 10,970 | 7,320  | 8,102  | 5,881  | 7,820  | 5,007  |
| Maple   | 11,245 | 8,596  | 6,270  | 5,026  | 3,508  | 3,403  |
| Poplar  | 963    | 458    | 377    | 192    | 423    | 215    |
| Basswood  | 510    | 576    | 40     | 32     | 40     | 22     |
| Ash   | 9,400  | 4,329  | 18,304 | 8,669  | 16,290 | 8,384  |
| Walnut  | 604    | 813    | 695    | 1,000  | 588    | 768    |
| Other   | 6,399  | 4,483  | 2,065  | 1,579  | 1,573  | 1,278  |
| Total   | 40,091 | 26,575 | 35,853 | 22,379 | 30,242 | 19,077 |

Source: Korea Customs Service

**Temperate Hardwood Lumber Imports From the U.S.**

| Korea: Temperate Hardwood Lumber Imports From the U.S.<br>(CUM and US\$ Thousand) |                |       |                |       |
|---|----------------|-------|----------------|-------|
| Species   | 2004 (Jan-Mar) |       | 2005 (Jan-Mar) |       |
|   | Volume         | Value | Volume         | Value |
| Oak   | 1,570          | 1,131 | 1991           | 1641  |
| Maple   | 840            | 785   | 793            | 769   |
| Poplar  | 56             | 30    | 117            | 59    |
| Basswood  | 0              | 0     | 0              | 0     |
| Ash   | 7,067          | 2,549 | 4160           | 2141  |
| Walnut  | 137            | 157   | 341            | 455   |
| Other   | 663            | 510   | 300            | 300   |
| Total   | 10,333         | 5,162 | 7705           | 5365  |

Source: Korea Customs Service

Tropical Hardwood Lumber PSD

**PSD Table**

| Country<br>Commodity | Korea, Republic of<br>Tropical Hardwood Lumber |         |                          |          |                          |          | 1000 CUBIC METERS<br>UOM |
|----------------------|--|---------|--------------------------|----------|--------------------------|----------|--------------------------|
|                      | 2004   | Revised | 2005                     | Estimate | 2006                     | Forecast |                          |
|                      | USDA Official [ Estimate ]                     |         | DA Official [ Estimate ] |          | DA Official [ Estimate ] |          |                          |
|                      | Market Year Begin                              | 01-2004 | 01-2005                  | 01-2006  | MM/YYYY                  |          |                          |
| Production           | 116  | 107     | 110                      | 90       | 0                        | 90       | 1000 CUBIC METERS        |
| Imports              | 330  | 273     | 330                      | 200      | 0                        | 200      | 1000 CUBIC METERS        |
| TOTAL SUPPLY         | 446  | 380     | 440                      | 290      | 0                        | 290      | 1000 CUBIC METERS        |
| Exports              | 1  | 2       | 1                        | 1        | 0                        | 1        | 1000 CUBIC METERS        |
| Domestic Consumption | 445  | 378     | 439                      | 289      | 0                        | 289      | 1000 CUBIC METERS        |
| TOTAL DISTRIBUTION   | 446  | 380     | 440                      | 290      | 0                        | 290      | 1000 CUBIC METERS        |

Import Trade Matrix- Tropical Hardwood Lumber

**Import Trade Matrix**

| Country           | Korea, Republic of       |              |          |
|-------------------|--------------------------|--------------|----------|
| Commodity         | Tropical Hardwood Lumber |              |          |
| Time Period       | JAN/DEC                  | Units:       | 1,000CUM |
| Imports for:      | 2003                     |              | 2004     |
| U.S.              | 0                        | U.S.         | 0        |
| Others            |                          | Others       |          |
| Indonesia         | 169                      | Indonesia    | 132      |
| Malaysia          | 126                      | Malaysia     | 125      |
| Papua New Gu      | 4                        | Papua New Gu | 4        |
|                   |                          |              |          |
|                   |                          |              |          |
|                   |                          |              |          |
|                   |                          |              |          |
|                   |                          |              |          |
|                   |                          |              |          |
| Total for Others  | 299                      |              | 261      |
| Others not Listed | 8                        |              | 12       |
| Grand Total       | 307                      |              | 273      |

Source: Korea Customs Service



Softwood Lumber PSD

### PSD Table

| Country<br>Commodity<br>Market Year Begin | Korea, Republic of   |         | Softwood Lumber |          |         |          | 1000 CUBIC METERS |  |
|---|--|---------|-----------------|----------|---------|----------|-------------------|--|
|   | 2004   | Revised | 2005            | Estimate | 2006    | Forecast | UOM               |  |
|   | USDA Official [ Estimate [DA Official [ Estimate [DA Official [ Estimate [New] |         |                 |          |         |          |                   |  |
|   | 01-2004  |         | 01-2005         |          | 01-2006 |          | MM/YYYY           |  |
| Production                                | 4200   | 3833    | 4300            | 3200     | 0       | 3200     | 1000 CUBIC METERS |  |
| Imports                                   | 350  | 398     | 400             | 300      | 0       | 300      | 1000 CUBIC METERS |  |
| TOTAL SUPPLY                              | 4550   | 4231    | 4700            | 3500     | 0       | 3500     | 1000 CUBIC METERS |  |
| Exports                                   | 7  | 10      | 7               | 10       | 0       | 10       | 1000 CUBIC METERS |  |
| Domestic Consumption                      | 4543   | 4221    | 4693            | 3490     | 0       | 3490     | 1000 CUBIC METERS |  |
| TOTAL DISTRIBUTION                        | 4550   | 4231    | 4700            | 3500     | 0       | 3500     | 1000 CUBIC METERS |  |

Import Trade Matrix- Softwood Lumber

### Import Trade Matrix

Country Korea, Republic of  
Commodity Softwood Lumber

|                   |         |             |          |
|-------------------|---------|-------------|----------|
| Time Period       | JAN/DEC | Units:      | 1,000CUM |
| Imports for:      | 2003    |             | 2004     |
| U.S.              | 4       | U.S.        | 2        |
| Others            |         | Others      |          |
| Canada            | 81      | Canada      | 133      |
| New Zealand       | 57      | New Zealand | 58       |
| Chile             | 52      | Chile       | 57       |
| Russia            | 49      | Russia      | 100      |
| Brazil            | 12      | Brazil      | 7        |
| China             | 10      | China       | 11       |
| Sweden            | 7       | Sweden      | 12       |
|                   |         |             |          |
|                   |         |             |          |
| Total for Others  | 268     |             | 378      |
| Others not Listed | 13      |             | 18       |
| Grand Total       | 285     |             | 398      |

Source: Korea Customs Service

**Softwood Lumber Imports From the U.S.**

| Korea: Softwood Lumber Imports From the U.S.<br>(CUM and US\$ Thousand) |        |       |        |       |        |       |
|---|--------|-------|--------|-------|--------|-------|
| Species   | 2002   |       | 2003   |       | 2004   |       |
|   | Volume | Value | Volume | Value | Volume | Value |
| Cedar   | 1,100  | 820   | 81     | 14    | 110    | 28    |
| Douglas Fir   | 100    | 36    | 98     | 37    | 38     | 25    |
| Whitewood or Fir  | 516    | 226   | 106    | 75    | 307    | 48    |
| Spruce  | 2,435  | 2,470 | 2,535  | 1,967 | 748    | 615   |
| Other   | 677    | 1,119 | 900    | 776   | 1,100  | 315   |
| Total   | 4,828  | 4,608 | 3,720  | 2,889 | 2,303  | 1,031 |

Source: Korea Customs Service

**Softwood Lumber Imports From the U.S. for Jan – Mar**

| Korea: Softwood Lumber Imports From the U.S. for Jan – Mar<br>(CUM and US\$ Thousand) |                |       |                |       |
|---|----------------|-------|----------------|-------|
| Species   | 2004 (Jan-Mar) |       | 2005 (Jan-Mar) |       |
|   | Volume         | Value | Volume         | Value |
| Cedar   | 91             | 21    | 0              | 0     |
| Douglas Fir   | 38             | 25    | 0              | 0     |
| Whitewood or Fir  | 101            | 16    | 40             | 6     |
| Spruce  | 631            | 349   | 22             | 100   |
| Other   | 266            | 49    | 33             | 24    |
| Total   | 1,127          | 460   | 99             | 130   |

Source: Korea Customs Service

**Value of Lumber Imports per Country**

| Korea: Value of Lumber Imports per Country<br>(Unit: 1,000 US\$) |         |         |            |
|--|---------|---------|------------|
| Country  | 2003    | 2004    | 2005 (1-3) |
| United States  | 25,414  | 20,238  | 5,497      |
| Malaysia   | 28,858  | 32,606  | 5,680      |
| Indonesia  | 61,072  | 51,142  | 11,205     |
| Chile  | 8,800   | 10,516  | 3,943      |
| China  | 24,798  | 22,975  | 5,977      |
| New Zealand  | 7,260   | 8,834   | 2,168      |
| Canada   | 24,450  | 35,849  | 4,994      |
| Brazil   | 6,725   | 4,812   | 1,420      |
| Others   | 18,091  | 26,960  | 7,281      |
| Total  | 205,468 | 213,932 | 48,165     |

Source: Korea Customs Service

Veneer PSD

### PSD Table

| Country<br>Commodity | Korea, Republic of         |         | 1000 CUBIC METERS        |                          |                          |                          | UOM |                          |          |
|----------------------|----------------------------|---------|--------------------------|--------------------------|--------------------------|--------------------------|-----|--------------------------|----------|
|                      | Hardwood Veneer            |         | 2004                     | Revised                  | 2005                     | Estimate                 |     | 2006                     | Forecast |
|                      | USDA Official [ Estimate ] |         | DA Official [ Estimate ] | DA Official [ Estimate ] | DA Official [ Estimate ] | DA Official [ Estimate ] |     | DA Official [ Estimate ] | New]     |
|                      | Market Year Begin          | 01-2004 | 01-2004                  | 01-2005                  | 01-2005                  | 01-2006                  |     | MM/YYYY                  |          |
| Production           | 0                          | 0       | 0                        | 0                        | 0                        | 0                        | 0   | 1000 CUBIC METERS        |          |
| Imports              | 360                        | 303     | 360                      | 300                      | 0                        | 300                      | 300 | 1000 CUBIC METERS        |          |
| TOTAL SUPPLY         | 360                        | 303     | 360                      | 300                      | 0                        | 300                      | 300 | 1000 CUBIC METERS        |          |
| Exports              | 0                          | 0       | 0                        | 0                        | 0                        | 0                        | 0   | 1000 CUBIC METERS        |          |
| Domestic Consumption | 360                        | 303     | 360                      | 300                      | 0                        | 300                      | 300 | 1000 CUBIC METERS        |          |
| TOTAL DISTRIBUTION   | 360                        | 303     | 360                      | 300                      | 0                        | 300                      | 300 | 1000 CUBIC METERS        |          |

Note: Included softwood veneer in import data.

#### Import Trade Matrix-Veneer

### Import Trade Matrix

| Country           | Korea, Republic of |                 |
|-------------------|--------------------|-----------------|
| Commodity         | Hardwood Veneer    |                 |
| Time Period       | JAN/DEC            | Units: 1,000CUM |
| Imports for:      | 2003               | 2004            |
| U.S.              | 9                  | 6               |
| Others            | Others             |                 |
| Malaysia          | 236                | 218             |
| China             | 18                 | 16              |
| Papua New Gu      | 53                 | 51              |
| EU                | 4                  | 3               |
|                   |                    |                 |
|                   |                    |                 |
|                   |                    |                 |
|                   |                    |                 |
|                   |                    |                 |
| Total for Others  | 311                | 288             |
| Others not Listed | 10                 | 9               |
| Grand Total       | 330                | 303             |

Note: Included softwood veneer.  
Source: Korea Customs Service

**Value of Veneer Imports per Country**

| Korea: Value of Veneer Imports per Country 1/<br>Unit: 1,000 US\$ |         |        |        |            |
|---|---------|--------|--------|------------|
| Country   | 2002    | 2003   | 2004   | 2005 (1-3) |
| United States   | 17,223  | 12,757 | 8,136  | 1,054      |
| Malaysia  | 48,662  | 36,802 | 38,301 | 10,966     |
| Chile   | 1,104   | 124    | 18     | 0          |
| Brazil  | 224     | 299    | 265    | 38         |
| China   | 21,101  | 24,954 | 24,444 | 3,925      |
| EU  | 11,313  | 9,079  | 5,467  | 650        |
| Papua New Guinea  | 5,021   | 6,269  | 9,601  | 3,100      |
| Canada  | 2,355   | 2,739  | 1,024  | 302        |
| Others  | 5,163   | 6,383  | 4,444  | 1,632      |
| Total   | 112,166 | 99,406 | 91,682 | 21,667     |

1/ Includes the value of softwood veneers

Source: Korea Customs Service

## Other Tables

## Economic Growth Rate

| Korea: Economic Growth Rate<br>(%) |      |      |     |     |     |      |
|------------------------------------|------|------|-----|-----|-----|------|
| Item                               | 2003 | 2004 |     |     |     | 2005 |
|                                    |      | 1/4  | 2/4 | 3/4 | 4/4 |      |
| GDP                                | 3.1  | 5.3  | 5.5 | 4.7 | 3.3 | 2.7  |
| GNI                                | 1.8  | 4.7  | 4.8 | 3.6 | 2.1 | 0.5  |

Source: Ministry of Finance and Economy

## Operation Rate of Wood Manufacturing

| Korea: Operation Rate of Wood Manufacturing<br>(%, In average) |       |       |           |
|--|-------|-------|-----------|
| Item   | 2003  | 2004  | 2005(1-3) |
| All Manufacturing  | 78.3  | 80.4  | 80.0      |
| Wood Manufacturing   | 105.9 | 100.2 | 98.3      |

Note: Operation indicator is 100 in 2000.

Source: National Statistical Office

## Supply of Domestic Roundwood

| Korea: Supply of Domestic Roundwood<br>(1,000 CUM) |          |      |                    |       |
|--|----------|------|--------------------|-------|
| Year   | Pitprops | Pulp | Lumber/Board/Other | Total |
| 1997   | 104      | 367  | 591                | 1,062 |
| 1998   | 110      | 406  | 912                | 1,428 |
| 1999   | 117      | 410  | 1,167              | 1,694 |
| 2000   | 112      | 552  | 928                | 1,592 |
| 2001   | 140      | 366  | 1,027              | 1,533 |
| 2002   | 58       | 373  | 1,174              | 1,605 |
| 2003   | 63       | 449  | 1,228              | 1,740 |
| 2004   | 62       | 478  | 1,497              | 2,037 |
| 2005 1/  | 46       | 423  | 1,881              | 2,350 |

1/ Government projections

Source: Korea Forest Service (KFS)

**Domestic Production of Wood Products**

| Korea: Domestic Production of Wood Products<br>(1,000 CUM) |       |       |       |
|--|-------|-------|-------|
| Items  | 2002  | 2003  | 2004  |
| Softwood Lumber  | 5,045 | 4,209 | 3,833 |
| Tropical Hardwood Lumber                                   | 83    | 148   | 107   |
| Temperate Hardwood Lumber                                  | 66    | 53    | 59    |
| Sub Total, Lumber  | 5,194 | 4,410 | 3,999 |
| Plywood  | 824   | 834   | 699   |
| Fiberboard (MDF)   | 1,236 | 1,318 | 1,584 |
| Particleboard  | 728   | 794   | 896   |
| Grand Total  | 7,982 | 7,356 | 7,178 |

Source: FAS/Seoul, Korea Wood Panel Association

**Supply and Demand of Wood Products**

| Korea: Supply and Demand of Wood Products<br>(Unit: 1,000 CUM on round-wood basis) |               |               |               |               |
|--|---------------|---------------|---------------|---------------|
|  | 2002          | 2003          | 2004 a/       | 2005 b/       |
| Domestic Wood  | 1,605         | 1,740         | 2,037         | 2,350         |
| Imported Wood  | 27,442        | 25,649        | 25,174        | 25,095        |
| -Log   | 7,707         | 6,987         | 6,582         | 6,690         |
| -Processed wood  | 19,735        | 18,662        | 18,592        | 18,405        |
| <b>Total Supply</b>  | <b>29,047</b> | <b>27,389</b> | <b>27,211</b> | <b>27,445</b> |
| Lumber   | 8,473         | 7,195         | 7,152         | 7,026         |
| Plywood/Veneer   | 3,941         | 4,062         | 3,466         | 3,372         |
| Chips for Pulp   | 10,671        | 10,836        | 11,173        | 11,350        |
| Boards   | 3,553         | 2,907         | 2,814         | 3,201         |
| Pitprops   | 58            | 63            | 62            | 46            |
| Mushrooms  | 2,351         | 2,510         | 2,544         | 2,450         |
| <b>Total Demand</b>  | <b>29,047</b> | <b>27,389</b> | <b>27,211</b> | <b>27,445</b> |
| Self-Sufficiency (%)   | 5.5           | 6.4           | 7.5           | 8.6           |

Source: Korea Forest Service (KFS)

**Value of Domestic Construction Orders By Type of Construction**

| Korea: Value of Domestic Construction Orders By the Type of Construction<br>(Billion Korean Won) |        |        |             |
|--|--------|--------|-------------|
| Sector   | 2003   | 2004   | Changes (%) |
| Building, Subtotal   | 58,037 | 51,540 | -11         |
| -Dwelling  | 42,662 | 34,587 | -19         |
| -Office & Stores   | 7,811  | 6,356  | -19         |
| -Factory & Storage   | 3,444  | 5,816  | 69          |
| -Public Office 1/  | 2,801  | 3,001  | 7           |
| -Others  | 1,319  | 1,780  | 35          |
| Civil Engineering, Subtotal  | 22,714 | 24,506 | 8           |
| -Forestry Conservancy & Water Control  | 655    | 865    | 32          |
| -Agriculture & Fisheries   | 438    | 339    | -23         |
| -Roads & Bridge  | 7,669  | 8,731  | 14          |
| -Harbours & Airports   | 1,985  | 2,025  | 2           |
| -Railways & Track  | 3,271  | 3,913  | 20          |
| -Water Supply & Sewage   | 1,558  | 1,546  | -1          |
| -Generation of Electricity 2/  | 3,126  | 1,792  | -43         |
| -Land Development 3/   | 1,841  | 2,534  | 38          |
| -Dams  | 123    | 156    | 27          |
| -Installation of Machinery   | 1,192  | 2,299  | 93          |
| -Others  | 856    | 306    | -64         |
| Other Construction, Subtotal   | 147    | 542    | 269         |
| Grand Total  | 80,898 | 76,588 | -5          |

1/ Includes schools and hospitals

2/ Includes transmission, transformation and distribution

3/ Includes gardens and grounds

Source: National Statistical Office

**Building Construction Permits by Structure**

| Korea: Building Construction Permits by Structure<br>(Floor Area, Thousand Square Meters) |         |                    |                  |        |        |
|---|---------|--------------------|------------------|--------|--------|
| Year  | Total   | Ferro-<br>Concrete | Brick &<br>Stone | Wooden | Others |
| 1996  | 113,820 | 101,940            | 7,193            | 131    | 4,557  |
| 1997  | 113,374 | 104,214            | 5,105            | 173    | 3,881  |
| 1998  | 50,965  | 46,701             | 1,889            | 113    | 2,263  |
| 1999  | 72,534  | 66,192             | 2,340            | 142    | 3,858  |
| 2000  | 81,059  | 75,292             | 2,056            | 178    | 3,532  |
| 2001  | 97,717  | 91,562             | 2,056            | 181    | 3,919  |
| 2002  | 138,734 | 136,222            | 2,074            | 171    | 268    |
| 2003  | 142,108 | 139,965            | 1,759            | 373    | 11     |
| 2004  | 117,461 | 115,526            | 1,551            | 383    | 1      |
| 2005 (Jan-Mar)  | 23,621  | 22,992             | 457              | 172    | 0      |

Source: Ministry of Construction and Transportation

**Building Construction Permits by Use**

| Korea: Building Construction Permits by Use<br>(Floor Area, Thousand Square Meters) |         |          |            |         |                         |        |
|---|---------|----------|------------|---------|-------------------------|--------|
| Year  | Total   | Dwelling | Commercial | Factory | Educational<br>& Social | Other  |
| 1996  | 113,820 | 61,062   | 26,862     | 11,921  | 6,289                   | 7,682  |
| 1997  | 113,374 | 62,677   | 27,918     | 8,796   | 6,603                   | 7,379  |
| 1998  | 50,965  | 31,156   | 8,753      | 2,796   | 3,983                   | 4,279  |
| 1999  | 72,534  | 44,606   | 11,746     | 7,824   | 4,478                   | 3,882  |
| 2000  | 81,059  | 41,283   | 18,882     | 11,646  | 5,126                   | 4,121  |
| 2001  | 97,717  | 47,856   | 25,888     | 43,538  | 5,534                   | 4,901  |
| 2002  | 138,734 | 57,320   | 49,862     | 15,366  | 7,489                   | 8,697  |
| 2003  | 142,108 | 62,128   | 45,809     | 14,738  | 7,919                   | 11,513 |
| 2004  | 117,461 | 50,099   | 30,966     | 14,740  | 8,860                   | 12,796 |
| 2005 (Jan-Mar)  | 23,621  | 7,765    | 7,708      | 3,635   | 1,787                   | 2,728  |

Source: Ministry of Construction and Transportation



**Housing Starts per Type**

| Korea: Housing Starts per Type<br>(Unit) |         |           |               |          |           |
|--|---------|-----------|---------------|----------|-----------|
| Year                                     | Total   | Apartment | Single Family | Tenement | Row House |
| 1997                                     | 596,435 | 484,949   | 52,948        | 19,219   | 39,319    |
| 1998                                     | 306,031 | 262,879   | 23,773        | 7,363    | 12,016    |
| 1999                                     | 404,715 | 345,345   | 33,772        | 7,640    | 17,958    |
| 2000                                     | 433,488 | 331,579   | 34,777        | 10,242   | 56,890    |
| 2001                                     | 529,854 | 267,401   | 49,454        | 8,592    | 204,407   |
| 2002                                     | 666,541 | 384,692   | 53,323        | 7,963    | 220,563   |
| 2003                                     | 585,382 | 468,763   | 42,173        | 6,265    | 68,181    |
| 2004                                     | 463,800 | 404,878   | 34,237        | 3,697    | 20,988    |
| 2005 (Jan-Apr) 1/                        | 103,364 | 91,578    | 7,584         | 990      | 3,212     |

1/ MOCT set the 2004 goal for new housing starts at 520,000 units

Source: Ministry of Construction and Transportation

**Import of Wood Frame Housing per Country**

| Korea: Import of Wood Frame Housing per Country<br>(Unit: 1,000 US\$ on a CIF basis) |       |       |       |                |                |
|--|-------|-------|-------|----------------|----------------|
| Country  | 2002  | 2003  | 2004  | 2004 (Jan-Mar) | 2005 (Jan-Mar) |
| United States  | 2,047 | 1,300 | 212   | 0              | 434            |
| Canada   | 1,882 | 1,577 | 1,983 | 482            | 249            |
| Finland  | 1,914 | 1,938 | 776   | 158            | 357            |
| Sweden   | 240   | 5     | 756   | 26             | 40             |
| New Zealand  | 27    | 17    | 0     | 0              | 0              |
| Australia  | 158   | 30    | 240   | 0              | 23             |
| Russia   | 361   | 94    | 92    | 54             | 43             |
| EU 1/  | 66    | 81    | 149   | 49             | 127            |
| Others   | 93    | 184   | 162   | 11             | 70             |
| Total  | 6,788 | 5,226 | 4,370 | 780            | 1,343          |

1/ Does not include Finland and Sweden, which are listed above.

Source: Korea Customs Service

| <b>Korea: Furniture Imports by Country</b> |                |                |             |
|--|----------------|----------------|-------------|
| (Units: US\$ 1,000)                        |                |                |             |
| Country/Economy                            | 2003           | 2004           | Changes (%) |
| USA  | 33,870         | 30,722         | -9.3        |
| China                                      | 198,450        | 296,690        | 49.5 %      |
| Italy                                      | 68,013         | 61,251         | -9.5        |
| Germany                                    | 40,970         | 34,147         | -16.7       |
| Vietnam                                    | 22,275         | 26,920         | 20.9        |
| Japan                                      | 24,159         | 20,178         | -16.5       |
| Malaysia                                   | 21,681         | 14,705         | -32.2       |
| Indonesia                                  | 12,823         | 11,747         | -8.4        |
| Thailand                                   | 9,725          | 11,303         | 16.2        |
| France                                     | 5,601          | 5,375          | -4.0        |
| Taiwan                                     | 2,764          | 2,395          | -13.4       |
| Others                                     | 52,085         | 43,421         | -16.6       |
| <b>Total</b>                               | <b>492,416</b> | <b>559,124</b> | <b>13.5</b> |

Source: Korea Customs Service

| <b>Korea: Furniture Exports by Country</b> |                |                |             |
|--|----------------|----------------|-------------|
| (Units: US\$ 1,000)                        |                |                |             |
| Country                                    | 2003           | 2004           | Changes (%) |
| USA  | 39,110         | 38,557         | -1.4        |
| China                                      | 48,658         | 99,536         | 104.6       |
| Japan                                      | 50,819         | 54,219         | 6.7         |
| Malaysia                                   | 7,152          | 12,653         | 75.7        |
| Mexico                                     | 7,347          | 7,767          | 5.7         |
| Uzbekistan                                 | 5,010          | 6,848          | 36.7        |
| Philippines                                | 3,121          | 5,503          | 76.3        |
| United Arab Emirates                       | 4,491          | 5,030          | 12.0        |
| Russia                                     | 3,334          | 2,937          | -11.9       |
| Others                                     | 46,018         | 55,878         | 21.4        |
| <b>Total</b>                               | <b>215,060</b> | <b>288,928</b> | <b>34.3</b> |

Source: Korea Customs Service

**Value of Total Forest Product Imports**

| Korea: Value of Total Forest Product Imports<br>(US\$ Million CIF) |                |       |     |                        |      |      |
|--|----------------|-------|-----|------------------------|------|------|
| Description (H.S. No.)   | From the World |       |     | From the United States |      |      |
|  | 2003           | 2004  | %   | 2003                   | 2004 | %    |
| Chips (4401)   | 74             | 93    | +26 | 7                      | 21   | +200 |
| Logs (4403)  | 610            | 704   | +15 | 95                     | 110  | +16  |
| Lumber (4407)  | 206            | 214   | +4  | 25                     | 20   | -20  |
| Veneer (4408)  | 99             | 92    | -2  | 13                     | 8    | -38  |
| Finished Lumber (4409)   | 38             | 43    | +13 | 0.8                    | 1    | +56  |
| Particleboard (4410)   | 78             | 121   | +55 | 1                      | 2    | +50  |
| Fiberboard (4411)  | 109            | 74    | -32 | 0.4                    | 0.4  | 0    |
| Plywood (4412)   | 417            | 397   | -5  | 1.3                    | 0.6  | -54  |
| Door and Windows (4418)  | 36             | 27    | -25 | 2.8                    | 2    | -29  |
| Other Articles of Wood   | 103            | 102   | -1  | 1.7                    | 2    | -18  |
| Total  | 1,770          | 1,867 | +5  | 148                    | 167  | +13  |

Source: Korea Customs Service

**Value of Total Forest Product Imports for Jan- Mar**

| Korea: Value of Total Forest Product Imports for Jan- Mar<br>(US\$ Million CIF) |                |      |     |                        |      |      |
|---|----------------|------|-----|------------------------|------|------|
| Description (H.S. No.)  | From the World |      |     | From the United States |      |      |
|   | 2004           | 2005 | %   | 2004                   | 2005 | %    |
| Chips (4401)  | 23             | 28   | +22 | 4.1                    | 3.4  | -17  |
| Logs (4403)   | 199            | 168  | -16 | 25                     | 27   | +8   |
| Lumber (4407)   | 54             | 48   | -11 | 5.6                    | 5.5  | -2   |
| Veneer (4408)   | 23             | 22   | -4  | 2.7                    | 1.1  | -59  |
| Finished Lumber (4409)  | 8.7            | 9    | +3  | 0.3                    | 0.1  | -67  |
| Particleboard (4410)  | 27             | 25   | -7  | 0.7                    | 1.8  | +157 |
| Fiberboard (4411)   | 21             | 17   | -19 | 0.04                   | 0.3  | +650 |
| Plywood (4412)  | 108            | 107  | -1  | 0.1                    | 0.08 | -20  |
| Doors and Windows (4418)  | 6.7            | 4    | -40 | 0.3                    | 0.3  | 0    |
| Other Articles of Wood  | 25.6           | 28   | +9  | 0.16                   | 0.42 | +162 |
| Total   | 496            | 456  | -8  | 39                     | 40   | +3   |

Source: Korea Customs Service

**Volume of Forest Product Imports**

| Korea: Volume of Forest Product Imports<br>(1,000 CUM) |                |       |      |                        |      |      |
|--|----------------|-------|------|------------------------|------|------|
| Description (H.S. No.)                                 | From the World |       |      | From the United States |      |      |
|  | 2002           | 2003  | 2004 | 2002                   | 2003 | 2004 |
| Chips (4401) 1/  | 868            | 969   | 1039 | 131                    | 82   | 224  |
| Logs (4403)  | 8,051          | 7,193 | 6534 | 227                    | 366  | 493  |
| Lumber (4407)  | 785            | 710   | 775  | 45                     | 40   | 33   |
| Veneer (4408)  | 390            | 333   | 303  | 10                     | 9    | 6    |
| Finished Lumber (4409) 1/                              | 36             | 42    | 43   | 0.2                    | 0.3  | 0.4  |
| Particleboard (4410)                                   | 1,000          | 681   | 867  | 1                      | 9    | 17   |
| Fiberboard (4411)                                      | 807            | 582   | 343  | 13                     | 1    | -    |
| Plywood (4412)   | 1,441          | 1,465 | 1260 | -                      | 1    | -    |
| Doors and Windows (4418) 1/                            | 28             | 23    | 18   | 1                      | 0.1  | 0.4  |

1/ 1,000 Metric Tons

Note: FAS/Seoul readjusted the number of logs and lumber based on KCS statistics.

Source: Korea Customs Service

**Imports of Wood Products by Country**

| Korea: Imports of Wood Products by Country<br>(Million US\$, percent) |       |       |       |       |       |       |
|---|-------|-------|-------|-------|-------|-------|
| Country   | 2002  |       | 2003  |       | 2004  |       |
|   | Value | Share | Value | Share | Value | Share |
| USA   | 151   | 8.3   | 148   | 8.4   | 167   | 8.9   |
| Indonesia   | 308   | 16.9  | 290   | 16.4  | 235   | 12.6  |
| Malaysia  | 252   | 13.8  | 244   | 13.8  | 249   | 13.3  |
| New Zealand   | 287   | 15.7  | 295   | 16.7  | 309   | 16.6  |
| China   | 229   | 12.5  | 226   | 12.8  | 259   | 13.9  |
| Russia  | 109   | 6.0   | 112   | 6.3   | 147   | 7.9   |
| Australia   | 84    | 4.6   | 69    | 3.9   | 72    | 3.9   |
| Canada  | 67    | 3.7   | 89    | 5.0   | 90    | 4.8   |
| Papua New Guinea  | 24    | 1.3   | 24    | 1.4   | 30    | 1.6   |
| Thailand  | 40    | 2.2   | 26    | 1.5   | 47    | 2.5   |
| EU  | 97    | 5.3   | 108   | 6.1   | 122   | 6.5   |
| Chile   | 26    | 1.4   | 16    | 0.9   | 28    | 1.5   |
| Brazil  | 4     | 0.2   | 15    | 0.8   | 15    | 0.8   |
| Others  | 131   | 7.2   | 108   | 6.1   | 97    | 5.2   |
| TOTAL   | 1,826 | 100   | 1,770 | 100   | 1,867 | 100   |

Source: Korea Customs Service

**SECTION III. NARRATIVE ON SUPPLY AND DEMAND, POLICY & MARKETING****PRODUCTION****Forest Situation/Outlook**

There are about 6.406 million hectares (HA), of forests in Korea. This accounts for 64.3 percent of Korea's total area, which is 9.96 million HA (an area about the size of Indiana). Korean forests are located predominantly in the cool-temperate zone with a small section in the warm-temperate zone along the southern coast.

Most of the domestic growing stock is 20 to 40 years old and is mostly coniferous trees. Small diameter logs (less than 30 centimetres) represent 97 percent of total log production. Because timber quality is low and the majority of trees are small in diameter, domestic round-wood is primarily used for pitprops, lumber for crates, fiberboard, and wood chips for pulping.

The 2005 round-wood harvest is projected at 2.4 million cubic meters (CUM). Softwoods comprise 70 percent of the harvest, followed by temperate hardwoods at 30 percent. For 2006, the outlook for domestic roundwood production is 2.6 million CUM, with softwoods (75 percent) and temperate hardwoods (25 percent) being the dominant species. The Korean Government projects that, with proper management, sustainable domestic production should be able to satisfy more than 50 percent of total demand by 2030.

The Korean Forest Service (KFS) projects that in 2005 consumption of wood products will reach 27.4 million CUM (round-wood basis), of which 25.1 million CUM will be imported and 2.4 million CUM will be domestic. Total imports in 2005 are expected to be 6.7 million CUM of logs and 18.4 million CUM of lumber and processed wood products (round-wood equivalents).

**Solid Wood Products Situation/Outlook**

Because the Korean Lumber Industrial Corporation (KLIC) stopped reporting the status of the lumber processing industry in 1995, the Korean Forestry Administration took a survey of that industry in 2004. According to the survey, in 2003, the 717 companies that belonged to the KLIC produced 2,866,000 CUM of lumber processed from 4,660,000 CUM of round-wood. This is only half of the production in 1995 when 1,402 companies produced 3,440,000 CUM of lumber from 6,549,000 CUM of round-wood.

In 2004, the panel products industry, on average, operated at 104 percent of capacity (3.06 million CUM). Panel products included 877,000 CUM of plywood (80 percent of capacity), 840,000 CUM of particleboard (107 percent of capacity), and 1,339,000 CUM of medium density fiberboard (MDF) (118 percent of capacity). (full capacity a factory is working six days a week for eight hours.)

In 2005, the panel industry is expected to increase total capacity to 3,169,000 CUM due to greater demand for MDF for use in furniture and in interiors. The capacity for plywood is expected to decrease because, during the second half of 2004, one processor closed a plywood production line. Strong local production of particleboard and MDF could partly offset the import demand for those products. The Korean Wood Panel Association predicts that in 2005 production of panel products will increase at least 10 percent relative to last year.

With the support of the Korean Forestry Service, the Korean Plywood Industry Association (made up of eight wood processing plants) has succeeded in producing plywood from domestic larch trees. In February, the first month of production, one company produced 442 cubic meters and soon afterward a second company began to produce plywood from domestic timber as well. Because supplies are getting tighter on the world market, and prices rising, domestic timber has become more competitive vis-à-vis imported logs. In the future, domestic companies will continue to increase the use of local timber for the production of plywood.

Because concerns over the "sick-house syndrome" have grown in Korea, local veneer manufacturers have changed from wet to dry veneer to avoid the use of formalin.

## TRADE

### Overview/Outlook

Due to a slump in the construction sector, in the first quarter of 2005, Korean wood product imports fell by 8 percent to \$456 million, as compared with a year earlier. Although the importation of some wood products rose, those increases were not substantial enough to offset decreased imports of logs, lumber, veneer, particleboard and MDF. Meanwhile, in the first quarter of 2005, imports from the United States increased slightly to \$40 million, up 3 percent over the same period in 2004. Increases in imports of U.S. logs, particleboard and MDF accounted for the bulk of the increase. Imports in some U.S. categories decreased. Overall, in 2005, Korean imports of wood products are expected to be lower than in 2004 because of slowing demand from the construction sector. U.S. wood product exports to Korea, however, are expected to remain at more or less 2004 levels due to steady demand for wood products for high-end construction.

In 2004, Korean wood product imports totaled \$1.87 billion, up 5 percent from the previous year, due mainly to the increase in unit price and to the greater imports of wood chips, lumber, flooring and particleboard. Because ocean freight was expensive last year, importers tended to prefer importing finished products as opposed to logs which take up more cargo space. In 2004, U.S. wood product exports to Korea totaled \$167 million, up 13 percent from the previous year. This growth was due to higher unit prices, and the increased quantities of wood chip and log imports. As a result, the U.S. market share has grown to 8.9 percent of total wood product imports. The importation of softwood logs has increased greatly in response to the increased demand for high quality building materials. Imports of hardwood logs, meanwhile, were negatively affected by the slow economy and sluggishness in the housing, furniture, and interiors sectors.

The Korea Wood News (KWN), a bi-weekly newspaper company, has launched an aggressive campaign designed to promote wood product consumption. The theme of the campaign is "Using Wood is Loving the Earth." The campaign begins in May and will continue for a year. The key message of the campaign is that timber harvesting is good for sustainable forest management and the environment. The campaign will make use of advertisements in the KWN, posters, bumper stickers, etc. Campaign supporters include Korean government agencies, importers/wholesalers of wood products, builders, developers, and the embassies of some exporting countries.

The Korean National Plant Quarantine Service (NPQS), as of August 2004, banned oak imports from Nassau county, New York, and as of October 2004, banned them from San Francisco county, California over concerns surrounding Sudden Oak Death (SOD). More information about SOD can be found at: <http://www.aphis.usda.gov/lpa/sod/sod.html>.

## Competition

In 2004, due mostly to high freight costs, the landed value of Korean wood product imports increased by 5 percent, to \$1,867 million, as compared with 2003. U.S. product imports increased 13 percent to \$167 million. The U.S. share of the Korean wood products import market grew slightly to 8.9 percent in 2004. Because of limited domestic forest resources, Korea must import about 92 percent of its wood product needs. In order to meet this demand, Korea imports wood products from over 50 countries among which the U.S., Indonesia, Malaysia, New Zealand, China and Russia dominate. In 2004, the combined market share of the top ten suppliers accounted for 91 percent of total imports. In 2003, and again in 2004, the United States was the fifth largest supplier, followed by Indonesia.

Recently, the Canadian Council of Forestry Industry (COFI) decided to focus its promotion activities to the Korean wood house construction industry. This year COFI plans to develop educational programs that discuss multi-story wood house construction technology for wood house builders, and wood housing seminars for consumers. COFI also plans to invite approximately ten Korean builders to attend a two-week training program that will be held in Canada in late August 2005.

## MARKET SEGMENT ANALYSIS

### CONSTRUCTION SECTOR

#### Marketing

Recent government infrastructure projects, and private and public sector housing construction projects have been responsible for much of the activity in the construction sector.

In 2004, building permits decreased 17 percent to 117,461,000 square meters and the number of new housing starts totaled 463,800 units, down 21 percent from 2003. But wood-frame house construction totaled 2,316 units and 383,000 square meters, up 16 percent and 3 percent respectively, as compared with 2003. Apartment complexes accounted for 87 percent of all housing construction, followed by single-family houses at 7 percent. Small multi-family buildings accounted for the remainder.

The Korean Government plans to supply 520,000 new homes in 2005, up 12 percent from the record of 2004. However, during the first quarter of 2005, building permits remained at around the same level as in the first quarter of 2004, but were down 36.3 percent from the previous quarter (Oct. – Dec. 2004). In the first quarter of 2005, as compared with the same period in 2004, housing starts declined 10 percent to 18,808,000 square meters. In the first quarter of 2005, building permits for wood-frame houses fell by 66.3% as compared with the same period in 2004. The leisure business (i.e., log cabins, country inns, etc.) has traditionally led the growth of wood-frame construction in Korea. New taxes, however, recently imposed on buildings with more than seven guest rooms, have put a damper on growth in this sector. Therefore, builders expect that construction of wood-frame houses will slow during the remainder of 2005, and that the total number of wood-frame houses built in 2005 will be about the same as the number constructed in 2004.

Builders, however, expect the number of wood-frame houses constructed in 2006 to grow because the government is expected to revise Korean fire codes for wood frame structures (KSF1611-1) in the second half of 2005. The American Forest and Paper Association (AF&PA), in cooperation with industry associations, including the Korean Wood Construction

Association (KWCA) and Korean Wood Builder and Designers Association (KWBDA), has conducted a number of seminars to help builders understand the new codes.

The AF&PA has participated in annual exhibitions in Korea and East Asia to promote the consumption of U.S. wood products in Korea. AF&PA has also attempted to educate Korean consumers about the benefits of using U.S. wood products in buildings, in interiors and for furniture through seminars, design fairs and housing fairs.

The 2004 Korea Wood Design Award Program selected 13 projects, including three hybrid structure buildings, five light-weight, wood-frame buildings, two post and beam structures, and one 2x4, post and beam structure. The award was given to the 2x4, post and beam building which was constructed in the Chungtae Mountain National Forest Resort. The AF&PA's Korean consultant inspected the award-winning building for compliance with International Building Codes. The Korean Forestry Service initiated the wood design award program in 2003 in an effort to promote domestic wood products.

One South Korean builder has built about 30 2x4 wood-frame houses on Mt. Keumkang in North Korea. The houses were built as lodging facilities for South Korean tourists. The builder expects the demand for such lodging facilities to increase as tourism to Mt. Keumkang becomes more popular.

## Policy

At present, apartments in Korea tend to be sold when construction is 20 percent complete. But, by 2012, the government plans to require that construction be 80 percent complete before apartments are put on the market. It normally takes two to three years to complete construction after an apartment has been sold. This has resulted in frequent problems, because the products used for interiors often differ significantly from those featured in model units. This will have a positive affect on U.S. hardwood sales, because many model apartments feature U.S. hardwood veneer, but less expensive materials are used in the final product.

Building code revisions that went into effect on April 6, 2005, paved the way for the construction of multi-story, multi-family, wood-frame houses and commercial buildings such as hospitals, restaurants, schools, etc. Under the new codes, eaves of wood-frame buildings are allowed to reach as high as 15 meters, and total height is allowed to reach as high as 18 meters. In addition, MOCT expects that revisions to the fire code for wood frame structures (KSF 1611-1), which are currently under review by the Legislative Administration Agency, will be finalized before the end of 2005. AF&PA/Seoul, FAS/Seoul, the Korean Wood Construction Association (KWCA), the Korean Forest Service (KFS) and the Korean Forest Research Institute (KFRI) have collaborated in efforts to bring about this revision in Korea's building codes since 1991. Once these revisions are adopted, it is expected that the construction of multi-story, multi-family wood structures will expand significantly. Competing countries are also keenly watching developments in order to take advantage of opportunities that the new codes will offer. These two important code changes will make it possible to construct, for the first time in Korea, wood-frame structures that are five stories tall.

On November 15, 2004, the Korea Forestry Research Institute (KFRI) inaugurated the Korean Wooden Indoor Environment Council (KOWIEC), which is made up of experts from Korean wood product industries, government agencies, academia and research institutes, to determine what materials should be used in buildings to avoid "sick house syndrome."

After the 2004 tsunami in Indonesia, the Korean Government decided to strengthen the seismic resistance requirements for newly constructed buildings. The changes, which have



not yet been finalized, will require that any new building over three stories tall with more than 1,000 square meters of interior space, be able to withstand seismic events of a certain, yet to be determined, magnitude. In the past, requirements of this kind extended only to buildings that were six stories tall or taller, and with 10,000 or more square meters of interior space. This revision, as well as the new fire code (KSF 1611-1), is looked upon as a positive development by the wood-frame building industry.

Large government construction projects will get under way in the next few years in Yeonki-Kongju, in Choong-Nam Province, which will become the headquarters for several ministries and governmental agencies. In addition, the government also recently decided to move 176 public organizations now situated in Seoul to outlying provinces. This is part of the government's attempt to promote economic activity in other parts of Korea, and to decentralize government operations, which are concentrated in Seoul. In addition, in the second half of 2006, in order to provide more areas for housing developments, the government plans to ease green belt restrictions in areas near Seoul. Space for housing in Seoul is currently very restricted, leading to very high population density and high housing prices.

The Korea Land Corporation (KLC), a quasi government agency responsible for supplying land for housing to private developers, has decided to develop a single-family housing complex at Dongbaek, which is near Seoul. KLC plans to construct about 17,000 units, mainly in high-rise condominiums. About 1,000 units, however, will be single-family houses. KLC involvement in the single-family housing market will motivate other large private developers to get involved in the development of 2x4 wood-frame houses, which are the single-family houses of choice. KLC is planning a similar single-family housing project in Pangyo, just south of Seoul, which will include about 2,500 single-family houses.

As of July 1, 2005, the Korean Government mandated that all companies with more than 300 employees must move to a five-day workweek. A year earlier, the same rule was implemented for companies employing more than 1,000 workers. The longer weekends are expected to generate demand for wood-frame vacation facilities for weekend travelers.

## Trade

Due to the code revisions, which allow for taller wood-frame structures, builders expect that there will be a large increase in the importation of glulam. Currently, however, U.S. dimension lumber is not widely used in Korea, because it is relatively expensive and the Korean wood-frame housing market is very price sensitive. Canadian SPF lumber, a mixed species of Spruce, Pine and Fir, is cheaper than U.S. dimension lumber. During the past year, the Korean won appreciated against the dollar, enhancing the price competitiveness of Canadian lumber. Korean builders of wood-frame housing prefer to buy individual wood-based building materials, such as lumber, windows, doors, molding, and paneling, and not prefabricated houses.

A huge wooden deck and glulam bridge were built over a lotus field in a tourism park in Chun-Nam Province, in southern Korea. The walkway is about 530 meters long, and its average width is 3.3 meters. One hundred thirty cubic meters of treated Radiata Pine were used to construct the walkway. Thousands of timber piles, some as long as 10 meters, were used to support the upper deck and bridge, which is one of the longest wooden bridges in Korea. In addition, the bridge has spans 30 meters in length, which are supported by glulam beams. The same builder has plans for a number of similar projects in other parts of Korea and plans to use Southern Yellow Pine (SYP) treated lumber. AF&PA Korea is working with the builder and architect to facilitate their use of SYP.

Local distributors have built inventories of price competitive wood products in their warehouses. This includes such products as Oriented Strand Board from Canada, Chile and the EU; red pine wall paneling from Russia; wall paneling, and chemically treated decking products from Finland, Sweden and Canada to supply their anticipated future needs. A major Korean distributor has purchased a sawmill in Canada in order to process dimension lumber for the Korean market. Meanwhile, the United States has become a competitive supplier of wood-based building products, including door and window molding and millwork.

## **FURNITURE & INTERIORS SECTOR**

### **Marketing**

The furniture and interior sectors have traditionally been the largest users of hardwoods. The furniture industry expects market growth to be limited this year. The sluggish economy and weak consumer confidence have had a negative impact on these sectors. The government's attempts, since October 29, 2004, to curb speculation in the housing market have also had a dampening effect on the furniture and interior sectors.

Korean demand for hardwood products has declined as furniture and musical instrument manufacturing facilities have moved offshore. The furniture manufacturers that remain in Korea make such items as sofas and dining room tables, using solid wood. They also manufacture office furniture and built-in home furniture using composite panel products.

Younger couples tend to prefer modern design furniture made with low priced panel products. Older consumers, conversely, prefer natural wood furniture, and medium and high quality imported items. Some local manufacturers have substituted coated paper for wood veneer to compete with lower priced furniture imported from China and Southeast Asian countries.

Many Korean consumers are influenced by a new trend referred to locally as "well-being." "Well-being" refers to a healthy and natural life style. Its growing numbers of adherents prefer solid oak, maple, walnut and cherry furniture. Given the large number of Koreans who now have a five-day workweek, the furniture industry expects consumer furniture needs to change along with the greater amount of leisure time spent at home.

The American Hardwood Export Council (AHEC) has been active in participating in annual exhibitions and seminars in Korea and East Asia. These events promote the consumption of U.S. hardwood products in Korea. AHEC has used seminars and design fairs to educate Korean designers about the benefits of using U.S. hardwood products for interiors and furniture. At the 2005 Seoul Living Design Fair, AHEC featured U.S. hardwood interiors and furniture in its "Eco Design with U.S. Hardwood" display designed by John Kelly, a renowned furniture designer based in New York. In addition, five designers featured several items of furniture and interior pieces made from red oak and walnut wood.

### **Policy**

The Korean Wood Culture Forum (KWCF), a non-profit organization consisting of wood-related government agencies and industry associations, has placed a high priority on promoting the use of wood materials in schools, particularly school flooring. The KWCF recently published a textbook promoting the advantages and benefits of wooden interiors, and distributed it to government agencies and industry associations. The KWCF's recommendation is expected to increase the use of wood in school flooring and

gymnasiums. AHEC has also placed stories in Korean publications about its Eco-Interior project in Japan, which will feature U.S. hardwoods in a nursery school.

## Trade

Korea has continued to increase imports of medium and low quality furniture from offshore manufacturers in China due to their very competitive prices. Imports of high quality furniture tend to come from Europe. The trend toward increased furniture imports suggests that demand for hardwood products from domestic furniture manufacturers will decrease over time.

Korean furniture imports in 2004 increased 14 percent to \$559 million while exports jumped 34 percent to \$289 million as compared with a year earlier. China has become the largest counterpart for both Korean furniture imports and exports. Korea has increased the importation of furniture parts from China and has also increased the exportation of finished furniture to other countries, China included. This underscores the importance of the Korean market as both a destination for products manufactured from U.S. hardwoods in third countries, such as China and Vietnam, and as a supplier of wooden furniture to those third countries.

During the first four months of 2005, as compared with the same period of time during the previous year, furniture imports increased 29 percent, to \$232 million, while furniture exports jumped 43 percent, to \$121 million. For the period in question, China dominated the Korean furniture market with a market share of over 60 percent in both imports and exports. Furniture trade is expected to follow this pattern for the near future.

Demand for hardwood lumber has been undermined by the substitution of solid wood with cheaper-priced composite and tropical wood products. In 2004, the U.S. export value of temperate hardwood lumber declined to \$19 million, down 15 percent from 2003. The quantity also decreased by 16 percent. In 2005, (based on first quarter data) the value of U.S. exports of temperate hardwood lumber is expected to increase slightly, i.e., by approximately 4 percent, as compared with 2004. The quantity of items purchased, however, is expected to decline as much as 25 percent for the year. This is due to the fact that high unit value imports of panel products for use in interiors and as inputs for the manufacture of furniture have increased, while imports of lower unit value imports of hardwood lumber have decreased.

## MATERIAL HANDLING INDUSTRY

### Overview

In 2004, total pallets circulating within Korea as part of the Korean Pallets Pool System hovered around 60 million units. Market share for wooden pallets has fallen to 55 percent, plastic pallets increased to 40 percent, and other pallets, such as iron and paper, are unchanged at 5 percent.

Annual pallet production in 2005 is projected at 12 million units, worth about \$270 million. The Korea Pallet Association does not expect pallet production in 2005 to increase because Korean exports in 2005 are not expected to keep pace with 2004's. The production of disposable wooden pallets for export accounts for roughly 65 percent of total pallet production. Plastic pallet production accounts for 30 percent. Plastic pallets are used for domestic commerce under the pallet pool system, and have an average life of eight years. The remainder, 5 percent, is constructed with metal or paper.

Local pallet producers continue to increase production of plastic pallets, which are more durable than wooden ones, and are less likely to result in damage to goods which is commonly caused by nails in wooden pallets. The implementation of the IPPC rule on solid wood packaging materials (SWPM) has increased demand for plastic pallets.

### **Policy**

In accordance with the IPPC rules on imported softwood packaging materials (SWPM), the Korean National Plant Quarantine Service (NPQS) announced that it would enforce the quarantine formalities for SWPM imported after June 1, 2005. Products subject to these quarantine measures include pallets, crates, wooden boxes, etc., which are used for import/export packaging. SWPM must be certified to have undergone heat treatment for more than 30 minutes at 56° Celsius. Noncompliant shipments must be returned or disposed of.

For more information on these requirements, refer to the American Lumber Standard Committee website at [www.alsc.org/WPM\\_summary\\_mod.htm](http://www.alsc.org/WPM_summary_mod.htm) and the National Hardwood Lumber Association website at <http://www.natlhardwood.org>. Click on "Heat Treatment".

### **TARIFF**

The Ministry of Finance and Economy accepted the industry's petition to lower tariffs on temperate hardwood veneer to the same level as tariffs for tropical hardwood veneer. As a result, effective January 1, 2005, tariffs on imported U.S. hardwood veneer fell from 5 percent to 3 percent. Local Ondol flooring manufacturers, the largest consumer of temperate hardwood veneer, will benefit most from the lowered tariff. In addition to the veneer tariffs, Ondol flooring manufacturers are asking the government to lower tariffs on plywood used for Ondol flooring substrate. Currently the import duty for plywood for Ondol flooring is 13 percent while the quota rate is 8 percent. (Ondol flooring is a type of flooring under which water pipes circulate hot water to provide heating in the winter.)