

The Impact of the Russian Tariff on Chinese Demand for Wood Products

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(This article is the last in a series of three articles looking at the impact of the 80% Russian log export tax on the international trade of wood products. This final article will look at the potential impact on Chinese demand for wood products.)

Chinese Forestry and Forest Products Industry

Since the devastation of the forests during the Cultural Revolution, China's government has been working to rebuild its forests in an effort to restore the environmental functions and benefits that forests provide as well as to decrease the country's dependence on imported wood as a raw material for their export-driven manufacturing sector. Since 1990 (the first year for which reliable forest area data is available), the area of forests in China has increased from 157,141,000 hectares to 197,290,000 hectares in 2005 and as a result, the forest cover in China has increased from 16.8% to 21.2%. However, most of the reforestation programs that have been implemented in China, while impressive in the total area reforested, have lacked follow-up management of the newly planted forests and high mortality rates have been reported for many of these new forests. In addition, the recent heavy snow that fell in the southern region of China (March 2008) devastated the young forest plantations in this region. News reports from the Chinese government estimate that as much as 10% of these plantations (19.8 million hectares) were destroyed by a combination of heavy snow loads that broke young trees or extremely low temperatures that froze and killed millions of young trees. The combination of high mortality rates and natural disasters have significantly reduced the area of economic forests that will be available to provide timber for the domestic wood processing industry, especially over the short-term period 2008-2015. As a result, China's reliance on imported wood can be expected to increase, even as the Russian log export tariff will reduce the supply of Russian logs flowing into China.

Chinese production of industrial roundwood displayed a dramatic period of increasing harvest volumes between 1962 and 1998 when timber harvests rose from 30.3 million cubic meters to 107 million

cubic meters, Figure 1. However, a series of devastating natural disasters involving flooding and massive mudslides convinced the Chinese authorities of the important environmental role that forests play in mediating the effects of natural disasters. This in turn led to the establishment of protective forests and

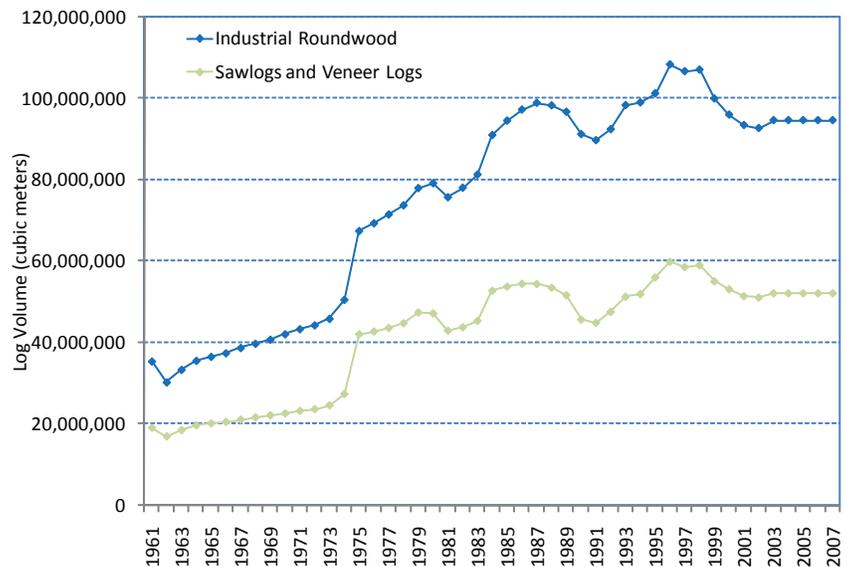


Figure 1. Chinese production of industrial roundwood and sawlogs.

Source: UN Food and Agriculture Organization ForesSTAT database 2008

a sharp decline in timber harvest volumes. Chinese production of industrial roundwood and sawlogs declined substantially between 1998 and 2002, with harvests dropping by 13.4%, from 107 million cubic meters to 93 million cubic meters. Since 2002, timber harvests have been stable, with the volume of industrial roundwood harvest being approximately 94 million cubic meters, of which 52.2 million cubic meters (55.2%) was for sawlogs and veneer logs. The recent losses of forest area due to the spring snowstorms means that harvest volumes are unlikely to rise in the near-term and could even decline.

Chinese production of wood products was focused primarily on lumber prior to 2000, Figure 2. During the period 1962 to 1985, production of lumber consistently grew from 10.4 million cubic meters to

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Director's Notes *Continued Confusion Over the Revised Lacey Act*

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There continues to be substantial confusion regarding the Lacey Act which was amended on May 22nd 2008 to include plant materials, including timber and wood products. The amendment was meant to halt the importation of illegally harvested timber and wood products into the US. At an international conference on certified wood held in Shanghai last week, many Chinese participants referred to the Lacey Act as a thinly disguised protectionist trade barrier designed to exclude Chinese wood products from the US market. Given the widespread misunderstanding about the Lacey Act, I thought it might be useful to provide a brief summary of the Lacey Act and its implementation in the US.

First, it is critical to understand that the Lacey Act can only be applied to US importers and cannot be used against foreign companies exporting to the US. The Lacey Act requires that US importers exercise due diligence to ensure that illegally harvested timber or wood products are not being brought into the US; and it applies just as much to wood products being imported into the US as to the interstate trade of wood products. It is important to note that the burden of proof is on the US

government to show that a product was derived from illegally sourced timber and that importers are not required to prove the legality of the product. This is a subtle distinction which places a substantial burden of proof on the government. Of course, the second basis for prosecution occurs if an importer can be shown to have deliberately lied on their import documentation.

There is no certificate required to demonstrate the legality of the products being traded, nor would a certificate be adequate to prove legality. However, importers are required to complete a declaration form stating the country of origin of the product, the scientific name of the wood species, and the quantity and value of the products being traded. Therefore it is critical for an importer to exercise due diligence in their business transaction and be vigilant for warning signs such as questionable paperwork, an unusually low price, requests for cash payment only, requests for bribes and unusual delivery methods. More information on the Lacey Act and its implementation can be found at: http://www.aphis.usda.gov/plant_health/lacey_act/downloads/faqs/Lacey_Act_Q&A.pdf

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27 million cubic meters. Between 1985 and 1997, lumber production declined to less than 20 million cubic meters in 1992 before recovering to 27.4 million cubic meters in 1996. The Asian Financial Crisis caused lumber production to drop precipitously between 1997 and 2000, hitting just 7.3 million cubic meters in 2000; the lowest production volume since 1960.

Beginning in 2000, as China began to embrace its export oriented model of economic growth, the domestic wood processing industry has emerged in its own right. Whereas, prior to 2000, the dominant wood processing sector was sawmilling, the post 2000 period saw the expansion of the wood-based panel sector, including plywood, particleboard and fiberboard. Growth in the production of sawnwood, plywood, particleboard and fiberboard was explosive during this period, with production volumes for each of these industries increasing by 298%, 199%, 182% and 428%, respectively, Figure 2. As a result of this dynamic growth in production, China's share of world production increased significantly, with lumber production in-

creasing from 1.9% of global production to 6.8%, while plywood production increased from 18.5% of global production to 42.2%, fiberboard production increased from 15.2% to 37.8% and particleboard production rose from 3.5% to 7.8. Notably, while almost 97% of sawn lumber is used domestically, a significant proportion of wood-based panel production is exported to foreign markets (e.g., 22.4% of plywood production is exported).

The vast majority of the logs imported into China are sourced from Russia, although this has not always been the case, Figure 3 and Table 1. While the ratio of Russian logs in the import mix has been above 60% since 2002, it was just 13.9% in 1995. In 2007, Russian log imports reached their highest level at 68.5% of total log imports. This ratio is expected to drop off somewhat in 2008 and the implementation of the 80% log export tariff in Russia is projected to drop this ratio by an additional 20% or more. The combination of the 80% Russian log export tax and the devastating snowstorm last March will provide a unique opportunity for US suppliers of logs and lumber to increase their presence in the Chinese

market.

The mix of log imports has changed significantly since 1995, with the ratio of hardwood logs dropping from 77.2% of total log imports to just 37.4% in 2007, although the volume of both hardwood and softwood logs had increased substantially since 1995, Table 2. Chinese imports of softwood logs have historically favored red pine (often comprising a mix of Mongolian scotch pine and Korean pine). Red pine is generally used in the production of furniture, furniture parts, wood windows, moldings and laminated panels for export markets. Lower quality red pine lumber is also used to make blockboard which is used as core panels for rail and stile doors. Larch logs are most often used for plywood production although some is used to produce flooring, laminated timber, posts and pilings. Spruce is mainly used for the manufacture of musical instruments. Lower quality logs of red pine and larch are generally processed into concrete forms for construction of buildings and infrastructure such as roads and bridges, wood pallets and railroad ties.

Chinese imports of lumber have increased rapidly, growing from 850,000 cubic meters in 1995 to 6.5 million cubic meters in 2007, Figure 4 and Table 2. Similar to the pattern observed with log imports, since 2003 hardwood lumber imports have declined by 10.7% whereas softwood lumber imports have more than doubled over the same time period.

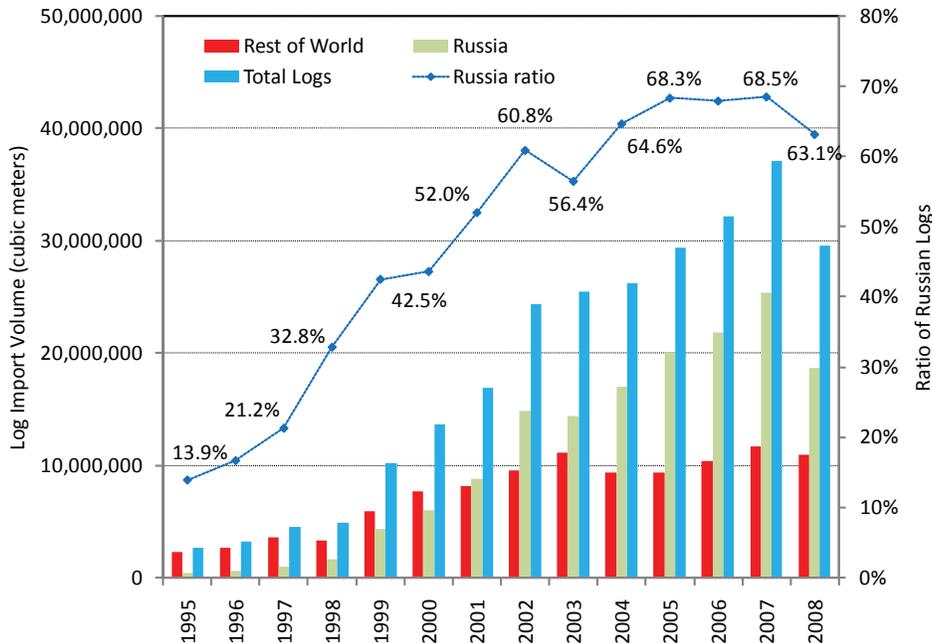


Figure 3. Chinese log imports from Russia and the rest of the world.

Source: Global Trade Atlas, 2008; UN Food and Agriculture Organization FORSTAT Database 2008.

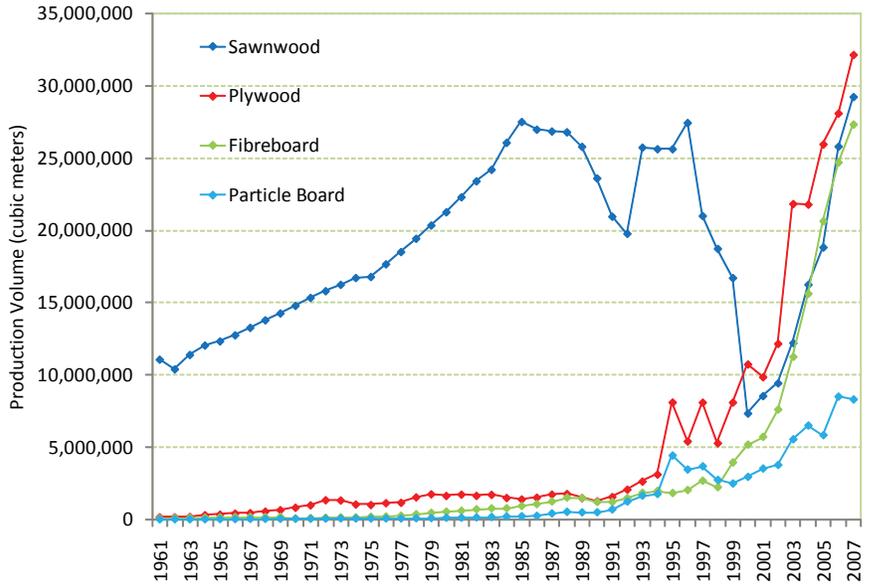


Figure 2. Chinese production of solid wood products.

Source: UN Food and Agriculture Organization ForesSTAT database 2008

Based on 11 months of import data for 2008, it appears that softwood lumber imports will exceed hardwood lumber imports for the first time. The two largest suppliers of lumber to China are Russia (24.4% market share) and the US (16.6% market share), Figure 4. Both Thailand and Canada are also major lumber exporters to China. Russian lumber exports to China are primarily softwood lumber and over 90% of Russian softwood lumber exports were red pine. Chinese imports of plywood have decreased dramatically as the domestic plywood industry has expanded. Over the period 1995-2007, plywood imports into China have dropped by almost 90% from 2.1 million cubic meters to 294,000 cubic meters.

Chinese Exports of Lumber and Plywood

As the Russian log supply continues to diminish over the next year, Chinese exports of wood products will likely decline, providing additional export opportunities for the US forest products industry. One example of this is lumber exports which declined sharply in 2007 following a decade of export increases. While both hardwood and softwood lumber exports declined in 2007, the sharpest decline was in softwood exports. The

Table 1. Chinese imports of softwood logs, by country (cubic meters)

	2001	2002	2003	2004	2005	2006	2007	2008
World	9,141,995	15,780,318	14,974,203	15,961,482	18,267,668	19,706,855	23,213,619	18,543,814
Russia	8,226,853	13,844,783	12,583,774	14,760,239	17,146,434	18,145,177	21,069,704	15,720,987
New Zealand	708,813	1,606,334	1,870,949	834,868	636,687	886,567	1,225,970	1,871,955
Australia	14,024	75,172	236,602	128,953	145,956	297,161	416,074	388,532
United States	48,530	60,381	25,752	29,150	38,926	66,423	95,009	217,482
Canada	8,819	20,149	80,292	49,958	124,962	79,230	110,253	204,038

Source: Global Trade Atlas, 2008; UN Food and Agriculture Organization FORESTAT Database 2008.

Table 2. Chinese imports of US logs and lumber, (cubic meters)

	2001	2002	2003	2004	2005	2006	2007	2008
US SW Logs	48,530	60,381	25,752	29,150	38,926	66,423	95,009	217,482
US HW Logs	61,748	61,231	75,538	118,229	154,785	179,512	225,401	179,671
US SW Lumber	24,566	33,584	54,770	64,136	49,094	66,467	75,640	87,037
US HW Lumber	368,447	593,208	622,157	718,273	803,847	955,342	997,404	955,500

Source: Global Trade Atlas, 2008; UN Food and Agriculture Organization FORESTAT Database 2008.

Table 3. Chinese imports of Russian softwood logs, by species (cubic meters)

	2000	2001	2002	2003	2004	2005	2006	2007
SW Logs	6,397,958	9,141,995	15,780,318	14,974,203	15,961,482	18,267,668	19,706,855	23,213,619
Red Pine	3,040,136	4,559,651	7,673,333	6,735,881	8,423,739	9,530,665	10,271,197	11,447,511
Spruce And Fir	1,131,276	1,696,707	2,855,350	2,694,718	3,043,190	3,449,638	3,666,535	4,374,705
Larch	1,300,668	1,950,765	3,282,898	3,124,280	3,246,165	4,115,040	4,172,848	5,213,480

Source: Global Trade Atlas, 2008; UN Food and Agriculture Organization FORESTAT Database 2008.

Table 4. Chinese imports of Russian softwood lumber, by species (cubic meters)

	2000	2001	2002	2003	2004	2005	2006	2007
SW Lumber	128,646	237,084	456,854	436,130	648,703	908,755	1,016,160	1,426,009
Red Pine	116,039	213,850	412,082	383,823	583,670	870,279	934,295	1,280,651
Spruce And Fir	5,274	9,720	18,731	23,744	24,402	22,506	35,786	49,595
Larch	7,333	13,514	26,041	28,477	40,631	15,914	46,079	95,763

Source: Global Trade Atlas, 2008; UN Food and Agriculture Organization FORESTAT Database 2008.

major market for Chinese lumber exports is Japan and exports to Japan declined by 17.6%. Just over half of the lumber exports from China to Japan are softwood lumber and the decline in lumber exports between 2007 and 2008 (27.6%) was substantially higher than the decline in hardwood lumber exports to Japan (5.2%). The major species of softwood lumber exported from China to Japan in 2008 was red pine (52.4 and larch (33.6).

Chinese exports of plywood have been increasing since 1998 at a rapid rate. In the process, the Chinese have become a major competitor with plywood exporting countries like Indonesia and Malaysia. However, the trade statistics for the 11 months of 2008 suggest that Chinese plywood ex-

ports could fall by as much as 17.9% in 2008. The countries where Chinese plywood exports will decline the most (in order of size of exports) are the US (-33.2%), Japan (-10.6%), South Korea (-44.4%) and Taiwan (-56.8%).

Impact of Russian Log Export Tax (80% Tax Rate) on Chinese Imports of Solid Wood

The following discussion considers the likely medium-term impacts of the implementation of the Russian 80% tax on log exports and is based on an analysis of the Russian log export tax performed using the Global Forest Products Model conducted by Turner et al. (2008), although CINTRAFOR is responsible for the interpretation of the results in the

following paragraphs.

The implementation of the 80% Russian log export tax would have a significant impact on the Chinese forest products industry, given its current level of reliance on imported Russian logs as a raw material for its lumber and plywood manufacturing sectors, Table 4. The trade analysis suggests that Chinese imports of Russian logs would be 47.1% (8.8 million cubic meters) lower in 2020. In response, the domestic log harvest in China would increase by approximately 4.6 million cubic meters and, as a result, imports would increase by approximately 4 million cubic meters assuming that global markets rebound

soon. However, it is likely that the domestic timber harvest might not be able to increase by as much as predicted because of the massive damage caused by the snowstorm in southern China in March 2008; well after the model projections were evaluated. In addition, Chinese imports of lumber are projected to increase by approximately 693,000 cubic meters and plywood imports are projected to increase by about 60,000 cubic meters.

The US forest products industry is well positioned to benefit from the increased demand for imported wood products in China resulting from the 80% export tax on Russian log exports for several reasons. First, it is clear that the supply gap cannot be filled entirely by domestic species, both because the domestic harvest cannot be increased enough to cover the supply shortfall and also because of quality mismatches between domestic species and the material properties required for many of the end-use application where Russian wood is used. Second, most of the production in the wood products sector is targeted to export markets that require legality of wood material for products being imported into the major developed markets (e.g., the US, Europe and Japan). Given that more than three-quarters of US commercial forests are certified, this should provide US forest products exports with a competitive advantage in China. Finally, current exchange rates provide US wood products with a competitive advantage in the Chinese market relative to their major competitors in Europe and Canada. For example, since 2002 the US dollar has weakened by 22.8% relative to Canadian dollar and by 34.4% relative to

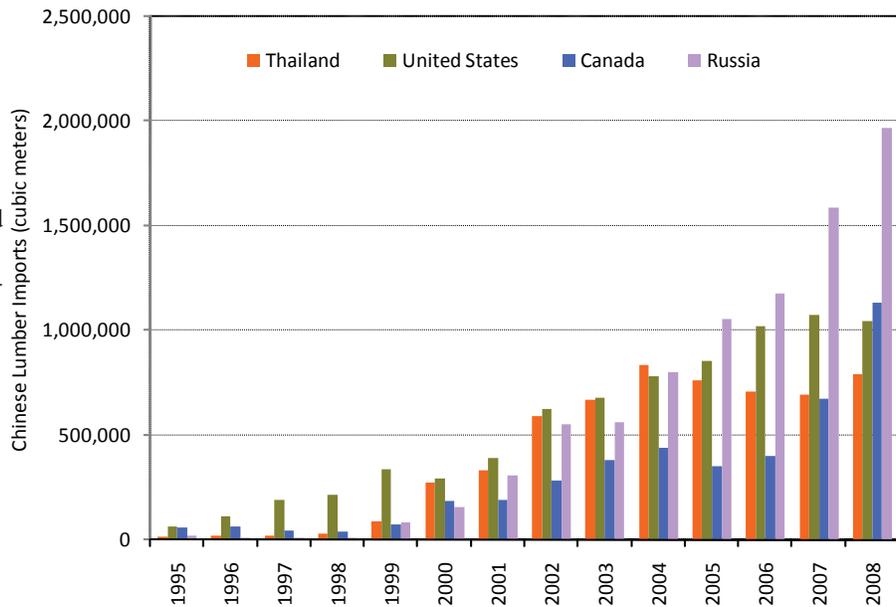


Figure 4. Chinese imports of lumber, by country of origin.

Source: Global Trade Atlas, 2008; UN Food and Agriculture Organization FORSTAT Database 2008.

the Euro. Additionally, much of the excess supply in Europe, which was previously exported to China, may well be redirected to meeting the supply shortfalls that develop in Finland and Sweden as a result of the Russian log export tax.

Conclusion and Recommendations

The implementation of the Russian log export tax will remove the largest supplier of logs from global markets and provide new opportunities for US logs and secondary wood products. A trade analysis of the global impacts of the Russian log tax suggests that the log export tax will reduce the global supply of logs by as much as 38 million cubic meters, or about 18% of the global log supply in the absence of the export tax. The analysis also suggests that global prices for wood products could increase by \$1.80 per cubic meter for logs, \$2.90 per cubic meter for sawnwood and \$4.60 per cubic meter for plywood.

The loss of Russian logs from the Chinese market will provide new opportunities for those countries able to increase log production and fill the void caused by the loss of Russian logs. In China, the domestic log harvest is expected to increase by up to 4.6 million cubic meters to fill this gap and imports would increase by approximately 4 million cubic meters and possibly by more, given the supply constraints caused by the devastating snowstorm last March. In addition, Chinese imports of lumber would increase by approximately 693,000 cubic meters and plywood imports to increase by about 65,000 cubic meters.

In China, where much of the demand for solid wood is derived from the export oriented wood processing sector (including the three largest export industries; wooden furniture, wooden floor-

Footnote

¹ At the time that Turner et al. (2008) carried out their analysis the export tax was announced to be applied to softwood logs only. Since their analysis the tax has been applied to both softwood and hardwood log exports.

ing and plywood), opportunities to expand exports of US wood products (both logs and secondary processed wood products) will require knowledge of how Russian wood is used as well as a strong marketing effort to substitute US wood products for the Russian wood that is currently being used. The following paragraphs will briefly describe some of the best market opportunities for US logs and processed wood products in China.

Russian logs imported into China include larch, red pine and spruce/fir. While there is some commonality across end-uses, red pine is generally used in the production of furniture, furniture parts wood windows, moldings and laminated panels for export markets. Lower quality red pine lumber is also used to make blockboard which is used as core panels for rail and stile doors. Larch logs are most often used for plywood production although some is used to produce flooring, laminated timber, posts and pilings. Spruce is mainly used for the manufacture of musical instruments. Lower quality logs of red pine and larch are generally processed into concrete forms for construction of buildings and infrastructure such as roads and bridges, wood pallets and railroad ties.

US softwood log species match up well with Russian species and end-uses. For example, mid-sized Douglas-fir logs from the Westside of the Cascades are good substitutes for Russian larch logs used to manufacture plywood and laminated veneer lumber. Hemlock is a good substitute for Russian spruce/fir used to make blockboard. Lodgepole and ponderosa pine are also good substitutes for red pine for the manufacture of furniture components. Finally, Douglas-fir can be used in place of red pine and larch in the production of lamina for glue laminated beams which are exported into the Japanese market.

The recent devastating Great Sichuan earthquake that occurred on May 12th, 2008 registered 8.0 and was centered about 80 kilometers from Chengdu. The death toll for the earthquake was officially 69,227 with 375,000 injured. Between 4.8 million and 11 million people were left homeless as a result of the earthquake. The devastating effects of the earthquake clearly showed the problems resulting from building with concrete block and brick construction techniques as many of the deaths were of school children crushed in the rubble of collapsed school buildings. The Chinese government has committed to spending up to 1 trillion yen to rebuild the region (approximately \$US146.5 billion). This catastrophe provides a unique opportunity to the US forest products industry to work with the Chinese government to speed up the use of 2x4 construction technology to build earthquake resistant, energy efficient homes, schools and clin-

ics in China. Currently the Canadian government and the government of British Columbia are working towards this goal but the US government and forest products industry is sitting back. This would be a good time for the US to consider becoming more involved in this effort by perhaps looking to collaborate on joint projects with the Canadians.

Given the disastrous state of the US home building sector, US wood product manufacturers and exporters should be very interested in exploring opportunities in off-shore markets. The looming Russian log export tax provides a unique opportunity for US forest products companies to become reengaged with international markets. This report clearly demonstrates that there are many new opportunities to export wood products to China. However, Chinese importers have made it clear that US suppliers must demonstrate that they are willing to engage in a long-term business relationship before they will consider doing business with them. The current downturn in the US construction industry has reinforced the fact that, despite what many in the industry had believed in the boom years of 1998-2005, the US housing industry is indeed cyclical. Maintaining a presence in foreign markets, whose economies are often countercyclical to the US economy, not only provides a strategy for leveling out supply bumps but it also helps to reduce forest products manufacturers and exporters exposure to economic risk over time. Bottom line: staying engaged in foreign markets over the long-term just makes good business sense and it's time that the US forest products industry accepted this fact.

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