

## An Assessment of the Thai Market for US Wood Products

By: Ivan Eastin, CINTRAFOR Director

With the US housing market remaining weak, demand for lumber in the western US has remained below historical levels with most sawmills operating well below capacity. In contrast, a relatively weak US dollar has boosted the competitiveness of US wood products in international markets. While most industry managers are familiar with trends in the major export markets (such as Japan and China), new trade regulations designed to remove illegally harvested wood products from international trade will provide opportunities for US wood products in new and emerging markets. CINTRAFOR recently embarked on a research project to explore the opportunity for US wood products within the furniture industry in Thailand. The following article provides background information on the Thai forestry and wood products sector, looks at the potential implications of timber legality legislation on material sourcing within the Thai furniture sector and describes the potential for introducing US lumber products into the Thai furniture industry. Our research found that Thai furniture manufacturers are quite interested in exploring the possibility of using US lumber (particularly western hemlock, western red cedar, redwood, and western red alder). However, much work needs to be done to familiarize Thai furniture manufacture with both the grades and the technical specifications of US softwood lumber species.

### Forest Sector in Thailand

Traditionally, the forest sector has been an important component of the Thai economy. However, logging and conversion to agriculture have resulted in substantial deforestation over the past 50 years. In an effort to more effectively manage Thailand's forests and other natural resources, the Ministry of Natural Resources and Environment (MNRE) was established in 2003. There are three departments in MNRE responsible for managing the country's forest resources. The Thai Royal Forest Department (RFD) is responsible for managing economic forests and forest product utilization. Formerly a part of the Ministry of Agriculture and Cooperatives, the RFD was relocated to MNRE and scaled back from being the chief office tasked with managing all forest activities, including harvesting, conservation, watershed management, protection, and reforestation. The Department of National Parks and Wildlife and

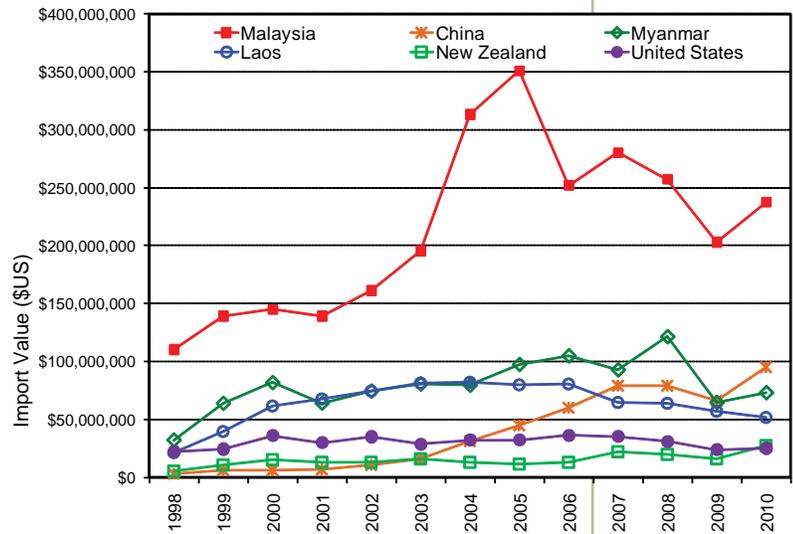


Figure 1. Total forest products imports by Thailand.

Source: Global Trade Atlas, 2011

Plant Conservation is now in charge of forest conservation and management of protected areas while the Department of Marine and Coastal Resources is responsible for the management and conservation of mangrove forests. In addition, the state-run Forest Industry Organization continues to manage the Government's commercial plantations and is the only agency authorized to buy and sell confiscated teak logs. Since the logging ban was implemented in 1989, most forest policies emphasize forest conservation rather than sustainable resource management of commercial forests.

In the Agricultural Development Plan, a component of the Tenth National Economic and Social Development Plan (2007-2011), a goal of the national forest policy was to conserve and rehabilitate 33% of the total area of the country, including areas for biodiversity conservation, national parks, wildlife sanctuaries, and watersheds. An additional 10% of the country (5.1 million hectares) will be promoted for the establishment of publicly owned forest plantations, private forest plantations and community forest plantations. In addition, an area of 1.25 million rai (200,000 hectares) of mangrove forest was targeted for conservation or rehabilitation.

Presently, the forest area of Thailand covers approximately 33% of the total land area (16.8

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# Director's Notes

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The Center for International Trade in Forest Products addresses opportunities and problems related to the international trade of wood and fiber products. Emphasizing forest economics and policy impacts, international marketing, technology developments, and value-added forest products, CINTRAFOR's work results in a variety of publications, professional gatherings, and consultations with public policy makers, industry representatives, and community members.

Located in the Pacific Northwest, CINTRAFOR is administered through the School of Forest Resources at the University of Washington under the guidance of an Executive Board representing both large and small companies, agencies, and academics. It is supported by state, federal, and private grants. The Center's interdisciplinary research is carried out by university faculty and graduate students, internal staff, and through cooperative arrangements with professional groups and individuals.

We are well into summer, although the cool, wet weather has many of us in the Pacific Northwest impatiently awaiting the real arrival of summer. Having recently spent several weeks in Bangkok and Shanghai on research (where temperatures were pushing 100 degrees with humidity over 90 percent), I personally welcome this cooler weather.

While waiting for warmer weather to arrive, we can take some solace in the fact that the export markets continue to heat up. After seeing declines in US wood exports of 0.6% in 2008 and 19.6% in 2009, wood exports turned the corner at the end of 2009 (increasing by 24.1% in 2010) continued by strong growth over the first five months of 2011 (up an additional 18.3%). While exports to China have weakened a bit as we move into the hot summer months, I expect that Chinese demand will recover again in the fall. To better understand these trends, we've analyzed the export data and put together a couple of tables summarizing US exports by both product types and country of destination (Tables 1 and 2). While export growth was strong across a number of product categories, the largest increases were seen for logs and lumber followed by shaped wood (mouldings and millwork) and particleboard (Table 1).

There have been a couple of interesting developments with respect to US-Canada trade of wood products. A recent news report mentioned that in May 2011, the value of BC lumber exports to China exceeded those to the US for the first time ever, essentially tripling between 2010 and 2011. The strong marketing effort undertaken by BC manufacturers, industry trade associations and the provincial government continues to pay off in China. Similarly, US exports of lumber to Canada, which barely exceeded lumber exports to Canada for the first time in 2010, surged in the first 5 months of 2011 and were more than 75% higher than lumber exports to Canada. Perhaps more importantly, given the export value recorded over the first five months of 2011, it is entirely possible that US total wood exports to China could exceed those to Canada for the first time ever. These trends are a testament to the amazing Chinese appetite for wood raw materials and they support the sales results reported from the US-China Build program managed by CINTRAFOR. **US exporters who participated in the USCB trade missions to China reported that their export sales to China during the first half of 2011 totaled just under \$65 million. As a result of their business in China, these companies estimated that they were able to retain or create of almost 190 jobs.**

US exports of wood products to Japan slowed during the first two months of 2011. However, in the aftermath of the Great

US exports of wood products, by product type (\$1,000)

	2006	2007	2008	2009	2010	Jan-May 2011
<b>Total</b>	<b>\$6,537,367</b>	<b>\$6,823,153</b>	<b>\$6,783,667</b>	<b>\$5,451,492</b>	<b>\$6,779,903</b>	<b>18.3%</b>
Fuel Wood	\$207,112	\$291,588	\$356,851	\$302,515	\$351,099	7.3%
Charcoal	\$9,702	\$9,471	\$10,756	\$11,609	\$9,755	-6.8%
Logs	\$1,518,372	\$1,760,089	\$1,743,920	\$1,390,243	\$1,870,713	42.7%
Hoopwood	\$12,706	\$7,170	\$8,276	\$8,389	\$4,801	5.1%
Wood Flour	\$7,052	\$8,538	\$7,549	\$9,173	\$9,895	5.9%
Sleepers	\$64,520	\$64,534	\$102,058	\$81,361	\$88,936	6.3%
Lumber	\$2,276,690	\$2,118,904	\$1,843,479	\$1,556,494	\$2,163,060	23.2%
Veneer	\$523,412	\$526,941	\$430,402	\$297,031	\$316,479	1.6%
Moulding	\$310,429	\$289,124	\$288,915	\$231,424	\$243,677	11.2%
Particleboard	\$169,431	\$192,262	\$224,999	\$122,442	\$150,197	7.1%
Fibreboard	\$257,590	\$244,549	\$256,921	\$234,004	\$242,527	-6.1%
Plywood	\$249,468	\$293,661	\$335,474	\$247,675	\$351,687	-4.1%
Builders Joinery	\$386,525	\$452,182	\$507,912	\$363,675	\$417,302	-3.2%
Tableware	\$12,471	\$13,471	\$17,389	\$12,824	\$11,708	12.8%
Ornaments	\$42,225	\$47,179	\$42,367	\$32,171	\$28,079	-8.7%
Other	\$186,575	\$190,305	\$233,737	\$224,234	\$200,101	-4.3%

Source: Global Trade Atlas, 2011

Kanto earthquake and tsunami, exports have increased substantially over the past three months. Logs represent about 2/3 of US exports to Japan followed by lumber (27%) and builder's joinery (5%). It is expected that exports to Japan will remain strong through the second half of the year as the rebuilding effort picks up steam following the on-going clean-up and infrastructure repair in the devastated areas.

Looking beyond China and Japan, the trade data shows that there is also increasing demand for a variety of US wood products in other export markets as well. Many of these markets could be defined as "new and emerging" markets, and while the type of product being imported varies by market, they are worthy of consideration by US exporters. New markets that have shown strong growth since 2009 include Vietnam (lumber and logs) India (lumber, logs, veneer and plywood), Philippines (lumber), Saudi Arabia (lumber, logs and wood wool), the UAE (lumber, logs and veneer), Turkey (wood chips and logs), Taiwan (lumber and logs) and Thailand (lumber and logs). With US housing starts expected to remain weak through 2011 and 2012, it makes sense for US forest products companies to take the time and effort to identify opportunities in either established or emerging international markets. **Q**

US exports of wood products, by country of destination (\$1,000)

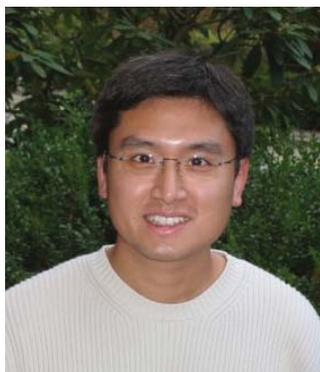
	2006	2007	2008	2009	2010	Jan-May 2011
<b>World</b>	<b>\$6,276,987</b>	<b>\$6,534,409</b>	<b>\$6,506,318</b>	<b>\$5,216,372</b>	<b>\$6,779,812</b>	<b>18.3%</b>
Canada	\$2,195,263	\$2,224,939	\$2,201,700	\$1,751,994	\$2,101,045	-2.1%
China	\$547,158	\$575,017	\$520,481	\$545,207	\$1,160,394	126.6%
Japan	\$713,696	\$666,642	\$725,563	\$517,450	\$633,761	21.4%
Mexico	\$576,349	\$543,074	\$510,747	\$411,731	\$481,693	7.2%
United Kingdom	\$196,051	\$244,001	\$225,187	\$179,125	\$212,050	5.9%
Korea South	\$148,707	\$178,747	\$226,323	\$195,019	\$202,704	1.0%
Italy	\$195,516	\$227,425	\$190,091	\$139,466	\$184,897	16.8%
Vietnam	\$65,355	\$105,593	\$112,034	\$106,860	\$156,101	-10.2%
Australia	\$32,202	\$38,475	\$57,968	\$55,915	\$87,051	3.1%
Taiwan	\$73,201	\$72,914	\$60,886	\$52,401	\$70,046	28.6%
Dominican Republic	\$57,938	\$54,565	\$53,069	\$37,044	\$54,808	9.8%
Turkey	\$9,389	\$16,064	\$41,338	\$40,270	\$53,722	33.6%
Indonesia	\$47,594	\$59,040	\$60,802	\$34,129	\$50,169	3.8%
India	\$3,815	\$6,444	\$14,129	\$13,485	\$16,852	118.5%
Russia	\$3,092	\$12,572	\$30,932	\$7,482	\$11,848	169.8%

Source: Global Trade Atlas, 2011

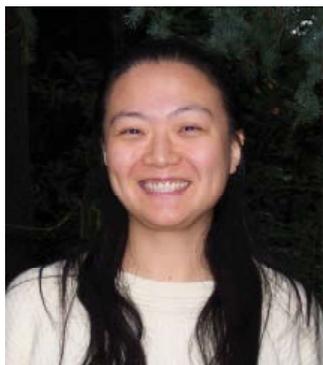
## CINTRAFOR Graduation News

As the Director of CINTRAFOR, I am happy to announce the graduation of three of our students during the past academic year. One of the core missions of CINTRAFOR is the training and mentoring of our graduate students to ensure that they enjoy success as the next generation of young professionals within the forest products industry. These students have all worked very hard and each has made a significant contribution to CINTRAFOR in the areas of both research and outreach. I greatly appreciate the hard work of these graduate students and recognize that much of CINTRAFOR's success is directly attributable to their dedication and effort.

### GRADUATING CINTRAFOR STUDENTS



**Jeff Cao** successfully defended his doctoral dissertation entitled “*Does It Pay to Be Green? An Integrated View of Environmental Marketing with Evidence from the Forest Products Industry in China*” and received his doctoral degree in Forest Products Marketing in Winter Quarter 2011. Dr. Cao is currently consulting with the Rainforest Alliance, providing support on environmental standards training, capacity building, auditing, and event production in China. He is also looking to continue his research on environmental marketing strategy in a fast-changing policy and market environment in the context of the Chinese forest products industry. He has been appointed as a visiting scientist with CINTRAFOR and the School of Forest Resources.



**Miyhun Seol** successfully defended her doctoral dissertation entitled “*Factors Causing Firms to Adopt Forest Certifications: Chinese Manufacturer's Perspective*” and received her doctoral degree in Forest Products Marketing in Spring Quarter 2011. Dr. Seol has just accepted a position as a Research Scientist in International Forestry with the Korea Forest Research Institute in Seoul, South Korea. She is currently involved in several projects relating to forest certification, climate change and forest carbon markets, overseas forest investment, and international trade of forest products. She looks forward to traveling around the world with various projects (and her husband)!



**Grover Yip**, a Peace Corps Masters International student, returned from his Peace Corps assignment in Mayo-Oulo, Cameroon where he worked as an agro-forestry extension agent from 2008-2011. As a Peace Corps Volunteer, Grover worked with local farmers to teach techniques which blended agriculture and silviculture in an environmentally sustainable way that could be integrated into local farming practices. Grover successfully defended his research project entitled “*A Survey of some Mayo-Oulo Soils, Cameroon*” and received his Master's degree in Forest Resources in Spring Quarter 2011. ☺

million hectares), of which about 96% is natural forest. Of the total natural forest area, tropical evergreen forest accounts for 32%, followed by mixed deciduous forest (53%) and dry dipterocarp forest (11%). The reported forest area does not include rubber plantations which totaled about 2.7 million hectares in 2008. The current area of forest cover is considered far below the optimum level of 40 percent forest cover that is the goal of the government (25% for conservation and 15% for economic forest). This shortfall has occurred despite ongoing conservation efforts over the past two decades as part of the national forest policy set forth in the National Economic and Social Development Plan.

The Government revised their forest policy in the 10th National Economic and Social Development Plan (2007 – 2011) to focus on maintaining the existing forest area at a minimum of 33% of total land area, of which no less than 18% should be conservation forests. In addition, 2.9 million rai of conservation forest will be rehabilitated. The Government has also discouraged the state-run Forest Industry Organization from selling confiscated logs in order to reinforce the logging ban.

Thailand’s forest area continues to decline despite

and a lack of mature trees in private plantations has kept the domestic demand for hardwood timber (excluding rubberwood timber) high. The production of hardwood timber from national forest areas, particularly teak, is only allowed from the FIO’s logging and thinning activities in their reforested areas. This reforested area comprises around 160,000 hectares with an estimated annual production volume of between 100,000 – 200,000 cubic meters. However, the supply of legally licensed timber and confiscated timber from national forests will likely drop substantially as a result of the Government’s recent proposal to ban the sale of confiscated timber in an effort to protect the existing forest resource. According to the Royal Forest Department (RFD), timber production from national forests (both legally licensed timber and confiscated timber) increased to around 13,000 cubic meters in 2006, which is still far below production over the previous three years.

Thailand is the world’s largest producer of natural rubber latex, with a total planted area of almost 2.7 million hectares. The rubberwood tree is typically tapped for latex about seven years after the tree has been planted. Latex collection continues until the tree reaches an age of about 35 years

old, when it is typically cut down and the area is replanted. Therefore, rubberwood is the substitute material for timber harvested from natural forests. The annual rubberwood timber production is around 3-4 million cubic meters. This is far below the potential harvest of around 7 million cubic meters that could be derived from the annual replacement of over mature plantations (approximately

32,000 hectares per year). The lower harvest volumes reflect the impact of continued increases in the price of natural rubber products, which have encouraged farmers to prolong the tapping of rubber trees beyond their typical harvest age.

Meanwhile, domestic prices of rubberwood fluctuate depending on export demand and the political situation in the southern provinces of the country. Political unrest in the four southern provinces of Thailand, where many rubber plantations are located, almost stopped the processing of rubberwood lumber in 2004. As a result, the wholesale prices for rubberwood at the factory reportedly increased from 190-200 baht/cubic foot in early 2004 to 240-250 baht/cubic foot in 2005. In 2007, wholesale prices of rubberwood at the factory were around 230-240 baht/cubic foot (\$7/cubic foot), compared to an average of around 300 baht/cubic foot (\$8/cubic foot) in 2006, due to a reduction in the volume of unprocessed log and lumber exports to China and Vietnam. Despite rubberwood’s relatively affordable

**Table 1. Forest Area in Thailand (hectares), by region.**

	North		Northeast		East		Central		South		Total	
	Area	%	Area	%	Area	%	Area	%	Area	%	Area	%
<b>1973</b>	113,595	67.0	50,671	30.0	15,036	41.2	23,970	35.6	18,435	26.1	221,707	43.2
<b>1982</b>	87,756	51.7	25,886	15.3	8,000	21.9	18,516	27.5	16,442	23.3	156,600	30.5
<b>1993</b>	75,231	44.4	21,473	12.7	16,408	24.3	16,408	24.3	12,808	18.1	133,554	26.0
<b>2004</b>	92,068	54.3	28,096	16.6	8,240	22.6	21,243	31.5	17,943	25.4	167,591	32.7
<b>2009</b>	95,075	56.0	27,556	16.3	8,033	21.0	20,089	29.8	20,833	27.0	171,586	33.4

Source: Thai Royal Forestry Department 2011

the logging ban that was implemented in 1989. According to a Royal Forest Department report on forest offenses, the annual rate of deforestation is approximately 5,760 hectare, or around 60 square kilometers over the past five years with the annual confiscated log and lumber volume totaling 13,520 cubic meters (of which around 30% is teak logs and lumber). This deforestation reflects illegal logging and illegal occupation of land for agriculture, particularly in the north where farmers have been replacing forests with rubber plantation and corn. To offset this pattern of deforestation, the MNRE, in conjunction with the Bank for Agriculture and Agricultural Cooperatives, recently coordinated the Farmer Debt Swap for Forest Plantation Project (2005 – 2007). This project is estimated to have helped approximately 300,000 farmers reforest about 3,200 square kilometers in exchange for reducing their debts by about 7.1 billion baht (about \$1 billion).

**Domestic Wood Supply in Thailand**

A combination of the Government logging ban



prices, export-oriented furniture manufacturers are beginning to shift to imported hardwoods, especially oak, as prices of low-grade oak are reportedly even lower. In addition, shifting to higher quality temperate hardwoods allows Thai furniture manufacturers to increase the value-added of their furniture products and compete in a higher quality market segment.

A rapid increase in rubberwood prices may encourage some furniture manufacturers to appeal to the government to re-impose a ban on exports of unprocessed rubberwood. In recent years, the wood furniture industry and a Deputy Minister of Agriculture agreed that Thailand should prohibit or limit exports of rubberwood in order to protect local rubberwood furniture manufacturers from the threat of highly competitive Chinese furniture producers. China has no local supplies of rubberwood, but because of its very low labor costs, Thailand has lost its comparative advantage over China in exporting rubberwood furniture in the world market. Currently, the Thai government has not implemented an export ban, as rubberwood producers and rubber farmers have voiced serious opposition to the idea.

#### Wooden Furniture Industry in Thailand

The furniture industry is one of major export-oriented industries in Thailand with export earnings of around 50 billion baht (around \$7.3 billion) in 2006. According to an official survey in 2006, there were 12,326 furniture manufacturers in Thailand, of which 20 are large-scale furniture manufacturers and the remainder are small and medium-sized enterprises.. Thai wooden furniture production amounted to around 30 million units in 2005, down slightly from the previous year. However, the export value increased by 6 percent in response to the shift of Thai furniture manufacturers towards the high-end of the market. Wooden furniture accounted for around 70 percent of total furniture production. Structural changes within the wooden furniture industry over the past two decades (since the logging ban in natural forests) resulted in a shift towards the increased production of rubberwood furniture. Rubberwood furniture now accounts for around 60-70% of total wooden furniture production, followed by other hardwood furniture (15-20%), and panel furniture (15-20%). Production of wooden furniture is diversified from finished furniture to knock-down furniture, particularly in export-oriented large-scale manufacturers with modern processing technology. Around 70% of the total wooden furniture production is exported, particularly to the U.S., Japan, and Europe. In addition, the increasing numbers of new homes being built in Thailand should increase the domestic demand for furniture.

The Thai wood furniture industry has good market potential for U.S. hardwood and softwood

logs and lumber as manufacturers move towards the high-end of the market. Current high rubberwood prices will encourage wooden manufacturers to consider US hardwoods, due to competitive prices and sustainable supplies. Presently, the annual demand for rubberwood within the furniture sector is estimated at around 1.2 million cubic meters, accounting for about half of total rubberwood production. Regarding the current rubberwood shortage, some wooden furniture manufacturers have begun to substitute imported hardwoods (particularly US hardwoods) for about 10% of their raw material inputs. Also, it is estimated that as many as 10% of the almost 2,000 export-oriented furniture manufacturers are reportedly interested in using imported hardwood as alternative raw materials.

#### Thailand Imports and Exports of Wood Products

##### Imports

Imports of forest products into Thailand totaled \$594 million in 2010 and were up by 3.8% in the first five months of 2011. Malaysia is the dominant supplier of wood products into Thailand with a market share of 40%, Figure 1. Other major suppliers include China (16%), Myanmar (12.3%), Laos (8.7%), New Zealand (4.6%) and the US (4.3%). Although Thai imports were up by just 3.8% in 2011, imports of wood products from the US were up by 51% (on a volume basis).

The largest proportion of wood products imports is lumber (market share of 55.1%) followed by plywood (16.2%) and logs (10.7%), Figure 2. Thai imports of logs between 2005 and 2010 were down by 45.5% but imports from the US were relatively stable, and as a result the US market share increased from 2% in 2005 to 3.6% in 2010. Thai imports of logs have been down by 34.2% through May 2011. While Thai lumber imports dropped dramatically between 2005 and 2009,

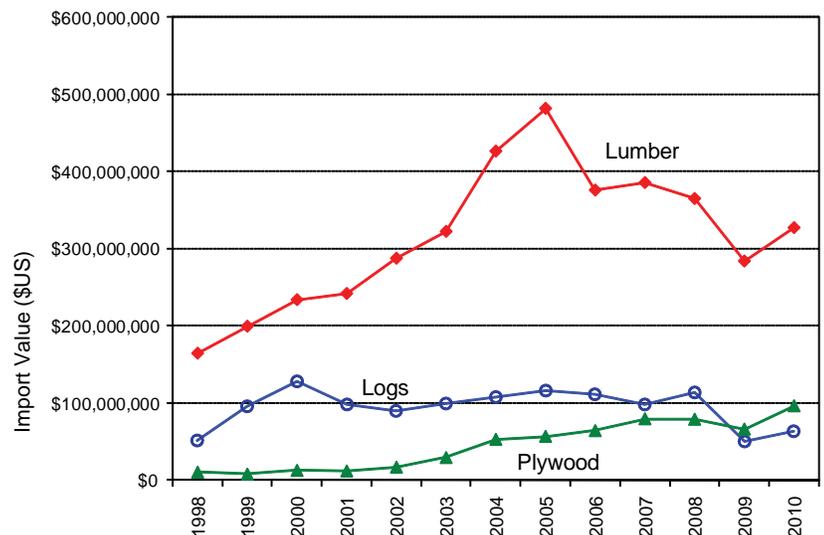


Figure 2. Imports of logs and lumber by Thailand

Source: Global Trade Atlas, 2011

they increased by 15.3% in 2010, raising the US share of lumber imports in Thailand to 6.6% in 2010. During the first five months of 2011, the value of lumber imports by Thailand has increased by 6%, although US exports of lumber to Thailand increased by 38%.

**Exports**

Thailand total exports of solid wood products have been growing rapidly since 1998 and exceeded \$2.2 billion in 2010, Figure 3. However, over the period 1998-2010, wood furniture was displaced as the major type of wood product exported from Thailand following a prolonged period of decline between 2005 and 2009. Over the entire 1998-2010 period, furniture exports increased only modestly while exports of solid wood products (harmonized code 44) increased by more than three times. The largest export growth in solid wood products was seen for lumber, particleboard, fiberboard and wood chips, Figure 4. The key driver of this transition in the mix of wood products exports has to do with end markets and their economic performance. The vast majority of solid wood products are being exported to developing markets such as China, Malaysia and Vietnam while wood chips largely go to Japan and Taiwan. In contrast, exports of value added wood products such as furniture, picture frames, wooden tableware and wood marquetry (e.g., jewelry boxes etc.) are largely exported to developed markets such as the US, Japan and the EU, where economic growth has been slow over the past five years.

Thai exports of wooden furniture recovered slightly in 2010 to reach \$553 million. Exports of wooden furniture, broken down by product type, are displayed in Figure 5. By and large, the vast majority of wooden furniture exports fall into the “other” category, which can include anything from

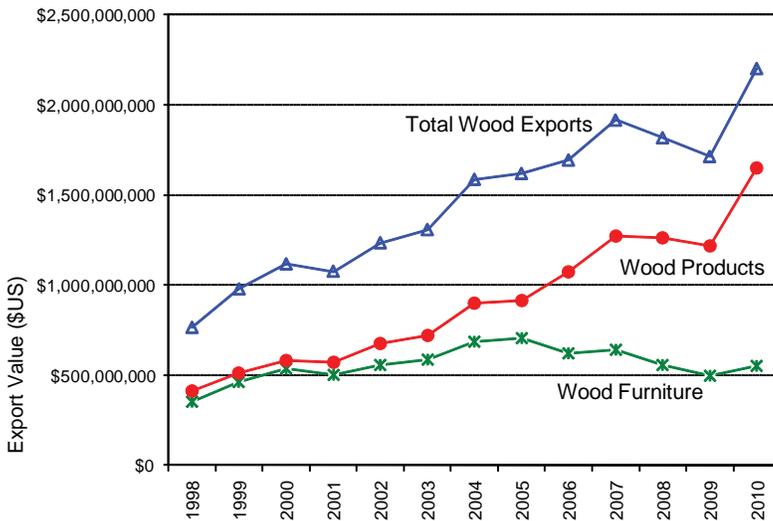


Figure 3. Thai exports of wood products  
Source: Global Trade Atlas, 2011

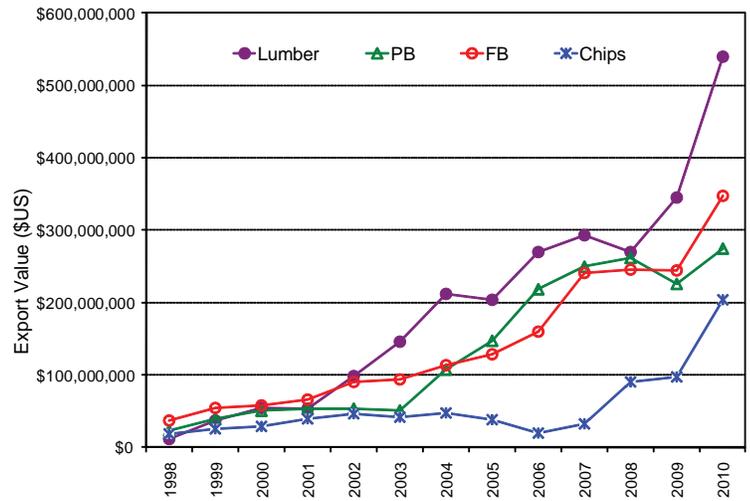


Figure 4. Thai exports of solid wood products (excluding furniture).  
Source: Global Trade Atlas, 2011

coffee and end tables to outdoor furniture. Thai exports of wooden furniture grew quickly beginning 2001 as the US and EU economies displayed strong growth and the Japanese economy stagnated. Between 1998 and 2005, the US and EU shares of Thai furniture exports increased from 43.5% to 50.9% and 11.4% to 13.6%, respectively, Figure 6. In contrast, the Japanese share declined from 35.5% to 25.2%.

**Impact of International Trade Policies on the Thai Furniture Industry**

Over the past decade, growing concern about deforestation and illegal logging has resulted in a variety of policies being implemented internationally. While some of these policies have relied on self-certification as a vehicle for eliminating illegally harvested wood from the supply chain (e.g., Japan’s public procurement policy), others have imposed fines and threats of confiscation of imported products to ensure compliance. In the US, the Lacey Act was amended in 2008 to include wood products and requires importers to provide sourcing documentation for imported wood products. The amended legislation requires that companies exercise due diligence in ensuring that illegally harvested wood is not imported into the US but it also places the burden of proof on the US government to prove that suspect wood imported into the US was in fact harvested illegally. Legislation approved in the EU would take this requirement a step further. Passed in 2010 and due to be implemented in early 2013, the EU Due Diligence legislation would require that companies importing wood into the EU, regardless of origin (including from within EU member states), prove that the wood imports are derived from legally harvested timber. The EU legislation would place a significant burden on EU companies looking to import wood products, particularly products sourced and manufactured in tropical developing countries, where sourcing documentation for timber products is often difficult to obtain

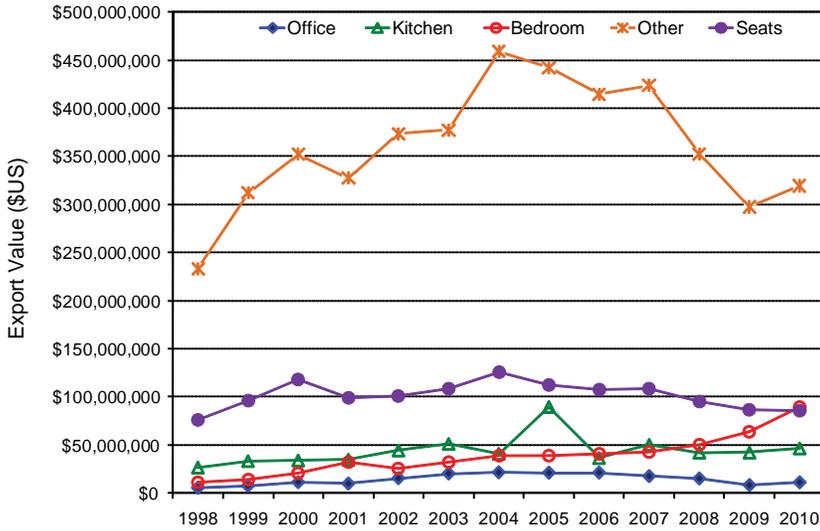


Figure 5. Thai furniture exports, by type.  
Source: Global Trade Atlas, 2011

and or verify.

The new EU FLEGT Due Diligence legislation is of particular concern to Thai wooden furniture manufacturers because of their reliance on rubberwood as a raw material input into the furniture sector. Within Thailand, rubberwood is grown in plantations and the latex derived from the tree is considered to be the primary agricultural output of the plantation. The rubber tree remains productive for approximately 30-35 years, after which the production of latex declines substantially and the trees are cut down to allow the planting of young seedlings. In the past, the over-mature rubber trees were either left to rot on the ground or were collected into piles, burned and converted in charcoal. However, approximately 20 years ago rubberwood began to be collected and used as a raw material for furniture production. Today it represents the primary raw material for the furniture industry in Thailand.

The problem for furniture manufacturers in Thailand is that despite the fact that rubberwood is the primary raw material input for the furniture industry, latex is still considered to be the primary product obtained from rubber plantations. As a result, the governmental ministry responsible for the development and implementation of policies related to rubberwood plantations (including rubberwood logs) is the Ministry of Agriculture and Cooperatives. To date the Ministry of Agriculture and Cooperatives has shown little interest in working with furniture manufacturers to develop a certification program to help meet the legality requirements contained in the EU Due Diligence legislation set to be enforced in early 2013.

**Opportunities for US Wood Products**

CINTRAFOR researchers recently visited Thailand to meet with interested parties within the Thai Royal Forestry Department, the Ministry of Agriculture and Cooperatives, the Thai Tim-

ber Association, the Thai Furniture Industries Association, The Nature Conservancy, as well as a number of furniture manufacturers. The goal of this research mission was to assess the potential impact of legality legislation on material sourcing within the furniture sector and to identify opportunities to increase US exports of wood products to Thailand. The following observations are based on the results of the interviews conducted in Thailand.

As a result of our meetings with the Forestry Department and the Ministry of Agriculture, two things became very clear. First, representatives from both agencies are aware of the various trade policies that would require that imported wood be certified as having been sourced from legally harvested

timber. Secondly, while managers within both agencies have been discussing the situation, there appears to be little urgency to identify a strategy for developing a legality certification program. In part, the lack of effort in resolving this situation reflects the programmatic focus of each department and their reluctance to overstep their bounds and be perceived as working in an area outside their official mandate and thereby interfering with the other department. Specifically, it appears that the crux of the problem relates to the fact that while the Forestry Department has the authority to develop a legality certification program for logs

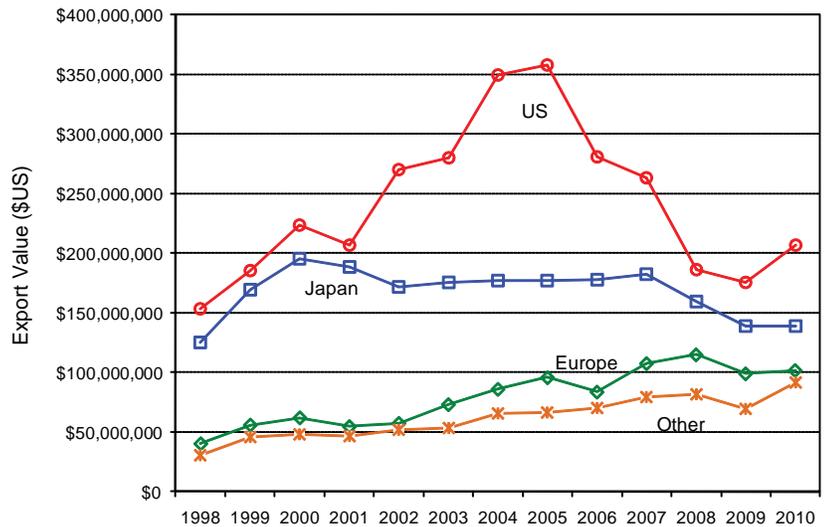


Figure 6. Thai furniture exports, by destination.  
Source: Global Trade Atlas, 2011

harvested from forests in Thailand, their authority does not extend to rubberwood logs which are considered to be a by-product of the latex industry. Since the rubberwood plantations are considered to be an agricultural crop whose main yield is rubber latex (not logs), it is impossible for the For-



etry department to unilaterally develop a legality certification program for rubberwood logs.

Recognizing that this situation may be a problem in the future, many of the Thai furniture manufacturers that we interviewed during our visit indicated that they would be interested in exploring the possibility of using imported wood as a raw material input. During our meetings with these furniture managers, we emphasized that integrating US wood into their manufacturing process could benefit them in several ways. First, it would be relatively simple to demonstrate the legality of furniture manufactured from US wood products. Second, by integrating US wood products into their raw material mix, they could hedge against the high prices and raw material shortages they experience when high latex prices cause plantation owners to defer the harvest and replanting of their plantations, which results in an immediate reduction in the volume of timber harvested from rubberwood plantations. Finally, using higher quality temperate wood species could help many Thai furniture manufacturers improve product quality and reposition their products to compete in higher valued market niches in the US and Europe.

Based on our discussions, we found that Thai furniture manufacturers are very price sensitive and they expressed little interest in importing higher priced US hardwood species such as walnut, cherry and hard maple. Rather, they indicated a stronger interest in more moderately priced species such as western red alder, western red cedar and western hemlock. We also found that many Thai furniture manufacturers have a limited knowledge of US wood species and there are likely opportunities for other US wood species in Thailand as well. Most of the furniture manufacturers we met with indicated that they either relied on suppliers to provide information on new wood species or they collected this information at trade shows.

We also talked with furniture managers about their preferences regarding the technical specifications of wood raw materials. Inevitably, these differed by company, but there were some trends that were important to note. Manufacturers tended to specify either rough or S2S lumber in an effort to avoid the 5% import tariff that is levied on planed (S4S) lumber. In addition, most manufacturers favored the import of kiln dried lumber in the range of 8 to 10% moisture content. Few expressed an interest in importing green lumber because it can get moldy and stained during shipment and storage.

While furniture manufacturers were interested in importing lumber in both random widths and random lengths, the managers we interviewed indicated that they preferred to import lumber in the following thicknesses: 4/4 5/4, 6/4 and 8/4. In addition, they were less interested in higher quality grades of lumber, favoring #1 and #2 common over clears and FAS grades (although this was not uni-

versally true). However, most manufacturers we talked with were unclear on US lumber grades, particularly since these vary substantially between the different grading agencies and between species. For example, one furniture manufacturer noted that while he was aware of the Western Wood Products Association, the Western Red Cedar Lumber Association and the California Redwood Association, he did not understand their grading rules or if there was any commonality between the grading rules for redwood, red cedar and red alder. As a result of this uncertainty, he expressed some reluctance in ordering large volumes of softwood lumber from the US. He did indicate that learning more about the different grading rules and lumber grades (perhaps at the furniture trade show in Bangkok) would help to offset some of this reluctance.

However, virtually all of the furniture manufacturers we met with felt that US lumber suppliers should customize their products to “cut-to-customer specification” instead of “cut-to-US standards”. By not doing this, they reported that US suppliers would be limited to selling only to furniture manufacturers who also manufactured flooring. They attributed this observation to the fact that “cut-to-US standard” lumber results in excessive wastage of around 50% during the furniture manufacturing process, as compared to an average of around 5% for wood “cut-to-customer specification”. While this waste material can be used to produce flooring materials, it limits the attractiveness of US wood in the market. In addition, the Thai furniture industry is beginning to emphasize original furniture designs in an effort to shift the industry from an OEM focus to an original design manufacturer (ODM) focus. A successful move toward the high-end of the market would likely increase demand for imported lumber.

While we visited only a small number of furniture manufacturers in Thailand, it is clear that concern over a variety of factors, including the rising price of rubberwood lumber, uncertainty regarding timber legality legislation in the EU, and interest in improving product quality has raised interest in the potential use of US wood, particularly western red alder, western red cedar, redwood and hemlock. As a result, there appears to be a good opportunity to introduce these species into the Thai furniture industry. Given the continued weak outlook for the US housing market (and the US economy in general), exploring new export markets could help to increase the demand for US lumber products, reduce dependence on the weak US market and provide stronger profit margins for US sawmills. However, it is critical that US suppliers work to educate Thai furniture manufacturers about US wood species, lumber grades and technical specifications in order to ensure the success of US wood products in the Thai market. 

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