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Solid Wood Products

China's Wood Processing Sector and Re-Exports of Imported US Wood Materials

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Report Highlights:
This report provides a sectoral analysis of US-China trade in wood products. Trade in wood products between the US and China totaled $5.66 billion in 2006, with $4.55 billion of that coming from Chinese exports. Chinese exports of wood products consist largely of value-added products such as furniture and paper while US exports primarily raw material. Post estimates that a significant amount of US timber, lumber and veneer, valued between $110-$155 million is re-exported from China in the form of finished product. Additionally, Chinese paper exports are comprised largely of US fiber sourced through US wastepaper and woodpulp exports. Recent restrictions on the Chinese paper and furniture sectors may curtail some of the competitive advantages that have fueled their growth.

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Executive Summary

US-China trade of wood products, raw material as well as finished product, reached a record $5.66 billion in 2006. The bulk of this trade by value comes from value-added Chinese exports, which equaled $4.5 billion[1] in 2006. Conversely, US exports to China are characterized by raw/less value-added product such as logs, timber and veneer. In 2006, this amounted to 19% of all trade in wood products between the two countries. Using assumptions about the nature of Chinese wood exports, based on industry observations, the value of US solid wood products from China is estimated to be between $110-$155 million. Additionally, Chinese paper and paperboard, including packing materials for consumer products shipped to the US, made from US sourced raw material is estimated to value around half a billion dollars in 2006. As the world leading consumer of Chinese wood products and as a major provider of raw wood material, a large amount of US sourced raw material is returning to the US as finished product that is processed in China. While China's increasing role as a processor of wood products has been good for US foresters, the US furniture and paper industries have been aversely affected by low-cost Chinese imports.

Chinese imports are capturing an increasing share of both the US furniture and paper sectors. These industries in the US are large and have successfully pressured government agencies in recent years to control the inflow of low-cost Chinese products. New trade rules and increased awareness of Chinese competition may help open the market for US paper and furniture manufacturers.

Introduction

US-China trade of wood and value added wood products totaled $5.66 billion in 2006. Of this total, $1.08 billion, or 19% was US exports to China. Thus, the bulk of the trade of wood products between the two countries is Chinese exports to the US, which were over $4.5 billion in 2006. The nature of the wood products traded between the two countries is different in that the majority of US exports to China are unfinished products, namely paper waste, lumber and rough wood. Inversely, the Chinese export very little rough wood materials to the US, less than 1/10 of 1% in 2006. The body of exports of Chinese wood products to the US are value added and are comprised primarily of furniture, paper and paperboard products, veneer, plywood, wood marquetry, wood flooring, builders joinery and wooden frames.

The US is a major provider of temperate hardwood to China and a small but significant source of softwoods. Much of this wood is shipped to China for further processing and is the re-exported back to the US, primarily in the form of mid-end furniture, veneer and hardwood flooring. As a major provided or paper waste, the US also supplies the Chinese paper and paperboard industry with the raw material necessary to produce finished product. Paper exports to the US primarily occur in the form of notebooks, box files, high-gloss paper and toilet paper. They are also used to make the packaging for China's exports of consumer goods to the United States. Exports of low-priced Chinese wood products to the US, namely, furniture, veneer, flooring and paper have had a significant impact on those industries in the US. Although, these industries have been hurt by Chinese imports, they remain sizeable and have been successful in securing some protection from Chinese importers deemed inconsistent with anti-dumping legislation or those found guilty of proving illegal subsidies.

This report is written with the intent of casting light on the value added component of the re-export of American forestry products and identifying which US industries may be able to capture a larger share of the value added component through their own competitiveness and the application of tariffs designed to curtail the advantages of Chinese production facilities gained by operating in a non-market economy.

[1] Value-added exports include upholstered furniture of which wood is a small component of total value. For furniture made with valuable upholstery, such as leather, the wood component can be as low as 10% of total value.

China's Furniture Sector

There are four major furniture manufacturing clusters, which are located in the south, east, north and northeastern parts of the country. The highest density of furniture manufacturing is found in South China's Zhu Jiang delta in Guangdong. As a province, Guangdong supplies close to 30% of (by price) of the Country's furniture production. Fujian province is another major furniture making force in south China. In the east, Shenzhen, Donguan, Zhongshan, Shanghai and its neighboring provinces are also important centers of production for furniture.

There are over 50,000 furniture enterprises with over 5 million employees in mainland China. It is estimated that 16.7% of China's total wood use goes toward furniture production and that approximately 24 million M3 of timber will be needed by the furniture sector every year.

With over 20 years of rapid development, China has become one of the world's top producers of furniture. Domestic demand is driving growth although approximately 1/4th of its furniture production is for export. Because of this balance, China's furniture industry is less susceptible to global market fluctuations. Cheap labor and raw materials give China a competitive advantage in furniture production. In recent years, several large American furniture manufacturers have established production facilities in China to take advantage of these low production costs. A dominant proportion of imported US hardwood and softwood go into Chinese furniture production, particularly for furniture for the export market. In 2002, China's total furniture turnover was approximately $20 billion.

China's Paper Sector

China has the fastest growing paper industry in the world. The recent expansion in the sector has been almost entirely met with large modern high-speed equipment, making it very efficient. Because of the high mechanization in the sector, labor costs are only a minor consideration. China's papermaking industry has been strongly supported by government loans and subsidies. The Chinese paper industry is concentrated along the coast in near the export manufacturing zones in Guangdong, Zhajiang, Jiangsu and Shandong provinces. Brisk investment in the papermaking industry along the Yangtze Delta and Pearl River Delta is expected to continue and there is a redevelopment strategy in place to rejuvenate the old Northeast industry base. The sector is largely dependent on imported wastepaper and woodpulp.

It is expected that large foreign-funded enterprises will speed up their development while state-owned enterprises will gradually withdraw. Industry analysts suggest that the industry is headed toward more forest-paper integration but the fast growing forests needed to supply the industry will be slow to establish. Thus there will continue to be a shortage of fiber in the industry.

Exports of US Wood Products to China

Exports of US wood and wood-based products to China have been growing steadily over the last 15 years but have been most significant since China's accession to the WTO in 1999. Since then, US exports of wood products by value have averaged an annual growth of 22%. (Figure 1). However, a more detailed analysis, by category shows that the bulk of this growth has been in raw material, with very little value added component. Specifically, woodpulp exports have increased more than nine-fold between 1999 and 2006 while paper exports have increased by only 57%. Lumber and rough wood exports have increased by 10-fold and 22-fold respectively during the 1999-2006 observation period. Furniture exports, a very small share of total US exports, have increased by 160% during this period. Collectively, exports of US wood products have increased four-fold by value between 1999 and 2006. In 1999, wood pulp accounted for 29% of US wood product exports, in 2006 it accounted for 51%. Paper, as a share of total exports, has declined markedly. In 1999 it accounted for 60% of the value of wood exports, while in 2006 it accounted for only 19%. The relative share of lumber and rough wood has grown from 4% to 12% and from 1.7% to 7.44% respectively (figure 3). The dominant wood derived products exported from the US to China are wastepaper and woodpulp.

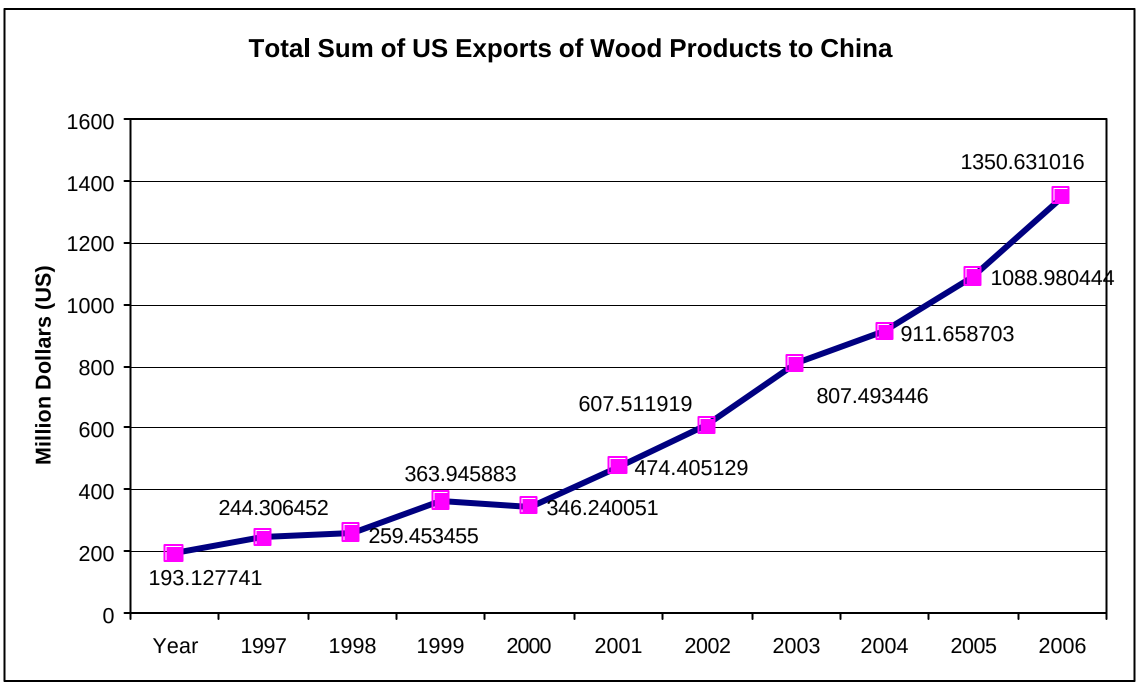

Figure 1 US Exports of Wood Products to China

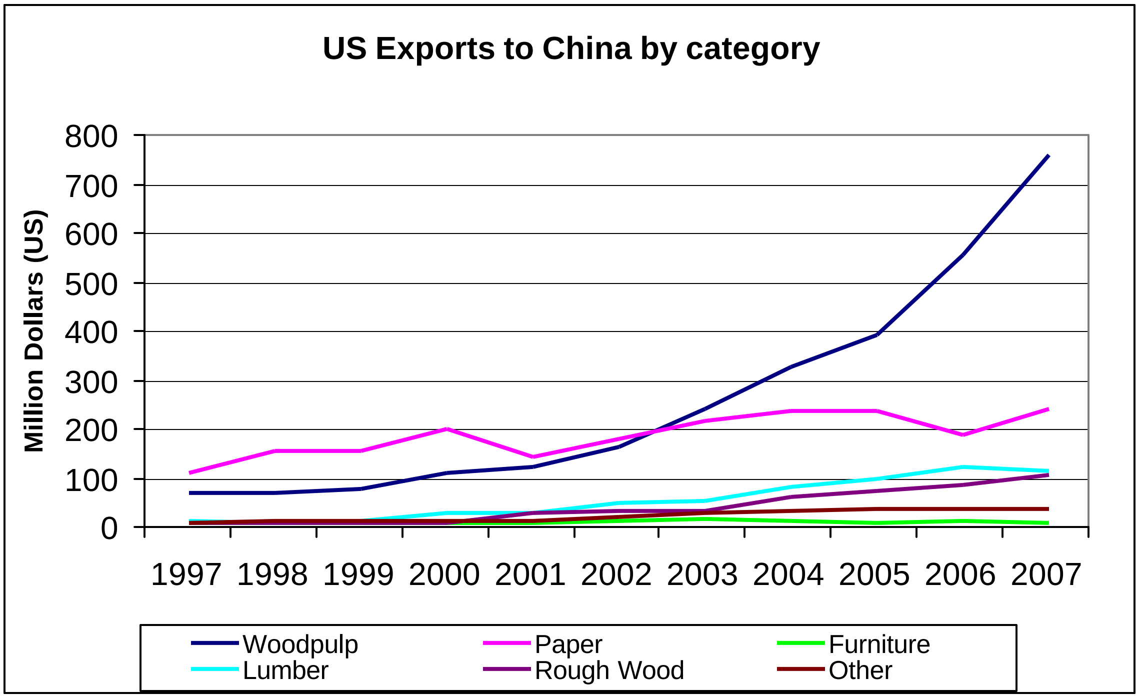

Figure 2 US Exports to China by Category

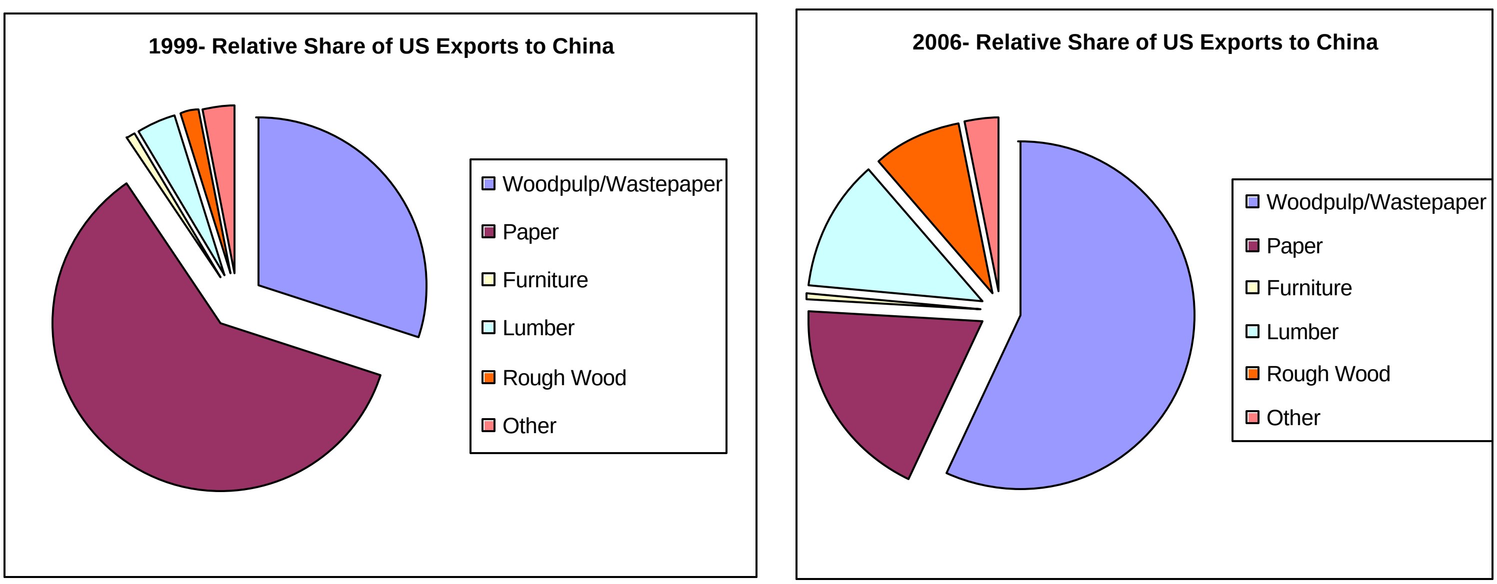

Figure 3 Relative Share of US Exports to China

For this analysis, the US export categories of particular interest are those where the value added component is fairly small. These materials, expressly woodpulp, lumber and rough wood, constitute products that are used at an industrial scale in China to produce paper, furniture and other wood products that are exported in large numbers back to the world in general and the United States specifically. The importation of raw product into China and its re-export of value-added product back to the United States aggravates the trade imbalance between the two countries and represents a potentially lost opportunity for

American industry. Below, the woodpulp, timber, rough wood products and veneer will be addressed in more detail and the relative share of China's imports of these products coming from the US will be determined.

Woodpulp/Wastepaper

Woodpulp and wastepaper are the most commonly used materials to make paper. In the US, woodpulp generally comes from softwood trees such as spruce, pine, fir, larch and hemlock as well as birch, a hardwood species. Within the woodpulp export category there are several subcategories; these are listed below along with their relative share of the value of US wood product exports to China for 2006. In total US exports of woodpulp and wastepaper to China accounted for $552 million in 2006, about half the total value of all US wood products sent to China.

Table 1 US Wastepaper and Woodpulp Exports to China

2006 Subcategory	*Value from US (million US)*	*% of total US export value*	*Value from World (million US)*	*US Share of World Total*
Wastes and scrap of paper/board	409.3839	37.59%	1402.69	29%
Chemical Woodpulp, Soda Or Sulfate	111.8319	10.27%	1111.803	10%
Chemical Pulp, Dissolving Grades	24.98467	2.29%	199.7093	13%
Other	6.521025	0.60%	145.072	4%
Total	**552.721514**	**50.76%**	**2859.274**	**19.33%**

Of the woodpulp exported to China, the majority is comprised of paper/paperboard waste. The high quality of US paper that makes it so attractive in China is due to the fact that most US paper companies manufacture their products with virgin fiber derived from timber.

China's paper industry has built-up a massive recycling capacity that is capable of processing paper waste, primarily from the US, Europe and Japan into finished product. In the last ten years, China's wastepaper imports increased by more than 500% from 3.1 million MT in 1996 to 19.6 million in 2006. In 2006, the US supplied over 29% of China's waste paper making it ones of the US's largest exports by volume to China. Industry analysts suggest that sourcing of raw materials is tight for the Chinese paper industry suggesting that it is partially dependent on US wastepaper, which is cheaper to process than raw wood. Chemically treated woodpulps account for the remainder of the woodpulp exports and these are also used in paper manufacturing. The US accounts for about 10% of Chinese total imports of these chemically treated woodpulps.

Rough Wood

Rough wood exports from the US to China amounted to $81 million in 2006. Of this, $65.2 million, or 80.5% were from hardwoods. US exports of oak to China are particularly strong at 19.75% of the total. US exports of rough softwoods account for a small share of Chinese imports.

Rough wood is used for a wide variety of purposes but is usually milled to lumber for most uses. Coniferous wood is used for furniture frames and plywood which are re-exported back to the US and a variety of low value applications which are used domestically. Hardwoods are used in higher value applications such as furniture and are also exported as veneer. Industry analysts assert that furniture made from imported rough wood is typically of a lower quality than that made from imported lumber. Overall, the United States provides 5% of Chinese imports of rough wood and 10% of its imports of rough temperate hardwoods. Russia is the leading exporter of rough wood to China. Table 2 shows the value of rough wood exported to China in 2006.

Table 2 US Roughwood Exports to China

2006 Subcategory	*Value from US (million US)*	*% of total export value*	*Value from world (million US)*	*US Share of World Total*
Nonconiferous,Other Not Treated	50.2346	4.61%	538.7285	9.32%
Oak (Quercus) Not Treated	15.02173	1.38%	76.04877	19.75%
Coniferous Not Treated	15.28902	1.40%	754.0819	2.03%
Treated/Painted	0.516639	0.05%	NA	NA
Beech Not Treated	0	0	22.7377	0%
Red Meranti Not Treated	0	0	9.908627	0%
Tropical Not Treated	0	0	208.7843	0%
Total	81.061989	7.44%	1610.2898	5.03%
Total Temperate Hardwood	65.25633	5.99%	614.77727	10.61%

Lumber

In 2006, US exports of lumber to China accounted for 13.5% of its total. The competitive advantage of US lumber exports to China is in temperate hardwoods where the US accounts for 23% of Chinese imports and 52% of oak sent to China. In total, temperate hardwood lumber comprises 10% of the value of wood products that the US ships to China. US exports of softwood lumber account for only 5% of the Chinese total imports. Not surprisingly, the US exports no tropical lumber to China. China however, did import nearly $220 million of tropical lumber in 2006, primarily from Malaysia, Myanmar, Thailand and Indonesia. Temperate hardwood and tropical lumber are used primarily in the production of higher end Chinese furniture products.

Table 3 US Exports of Lumber to China

2006 Subcategory	*Value from US (million US)*	*% of total export value*	*Value from world (million US)*	*US Share of World Total*
Other Nonconiferous	78.4314	7.20%	313.3373	25.03%
Oak	29.77274	2.73%	56.8484	52.37%
Coniferous	7.686437	0.71%	149.317	5.15%
Other Tropical	0.350515	0.03%	102.2676	0.34%
Beech	0.016195	0.00%	22.7377	0.07%
White Lauan/Meranti/Seraya	0.115664	0.01%	9.908627	1.17%
Virola/Mohog/Imbuia	0	0.00%	208.7843	0.00%
Total	**116.372951**	**10.69%**	**863.2009**	**13.48%**
Total Temperate Hardwoods	**108.55**	**9.97%**	**472.45**	**22.98%**

Veneer and Tongue and Groove

Veneer and tongue & Groove also make up a sizeable specific category of US wood exports to China although they have been declining in recent years as China has increasingly processed these products at home. In 2006, veneers and T & G exports equaled $14.7 and $9.2 million respectively.

Exports of Chinese Wood Products to the US

Since 1999, the exportation of Chinese wood products to the US has also grown albeit at a much more dramatic pace than US exports. Between 1999 and 2006 annual growth in Chinese exports averaged just under 29% for a 460% increase in total (figure 4). In 1997, the difference in export value of US and China wood products was just $228 million. 2007 estimates value China's wood exports at over $3.2 billion more than those of the US. The disparate courses for both countries relates to the nature of wood products being exported. While the US has increased exports of lower value pulp, rough and sewn timber China's exports of value-added products have surged. China continues to export very little rough or raw wood products to the US – less than 1% of its export value in 2006. Categorically, Chinese exports of furniture products to the US were 500% higher in 2006 than in 1999. Paper/paperboard and "other wood" products have are 360% and 44% higher respectively during this same period (figure 5). The relative share of the total value of each category has remained essentially the same during the 1999-2006 period.

As was done with the US, a more detailed analysis of the categories of primary importance for Chinese exports, furniture, paper and other wood products, are discussed in more detail below.

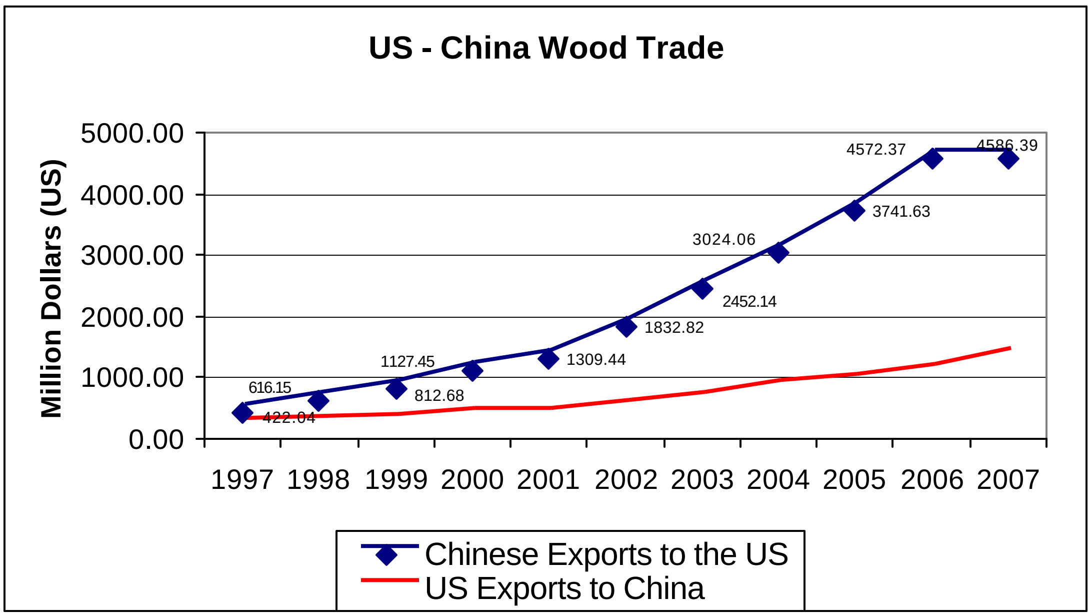

Figure 4 US-China Wood Trade

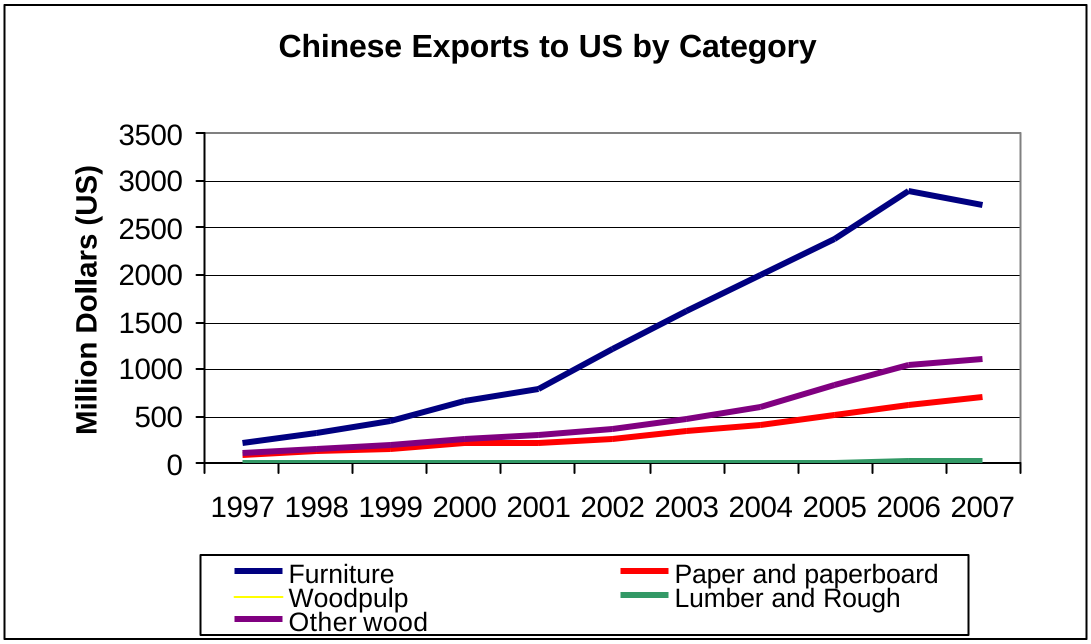

Figure 5 Chinese Exports to US by Category

Furniture

Furniture represents the largest share by value of Chinese wood product exports to the US accounting for 63% of the total (seating and non-seating). The dramatic increase of Chinese furniture in the US over the last ten years has made it a product of contention. Tariff codes for furniture divide it into seating and other furniture, both of which are composed of multiple subcategories. The furniture addressed here is wooden furniture as categorized by the tariff schedule. The degree to which non-wood components, upholstery, plastics and metal, are used in the manufacturing process is not supplied. It is assumed that the value of these items is approximately 30% for most unupholstered furniture while it can be as high as 90% in the case of leather seating, for which upholstery is the major expense.

Non-seating furniture is composed of bedroom furniture, office furniture, kitchen furniture and cane/bamboo furniture. An ambiguous subcategory, "other wood", includes mixed use furniture or furniture that has not been categorized. Non-seating furniture represents 46% by value of the wood products China exported in 2006.

Table 4 Chinese Furniture Exports to the US

Furniture – Non Seating		Percentage of Value	
Subcategory	2006 Value Million-US	Total Furniture – Non Seating	Total Chinese Wood Product Exports to US
Other Wood	1108.35826	52.71%	24.24%
Wooden,Bedroom	609.749478	29.00%	13.34%
Wooden,Office	127.387827	6.06%	2.79%
Wooden,Kitchen	103.569746	4.93%	2.27%
Other Cane/Bamboo Furn	153.761995	7.31%	3.36%
Total	**2102.827306**	**100.00%**	**45.99%**

Seating is the second category of furniture and is divided into the subcategories of wooden frame – upholstered, wooden frame non-upholstered and bamboo/rattan/osier seats. Upholstered furniture makes up the most significant share of the seating category and accounts for 13.4% of Chinese wood product exports. Non-upholstered furniture is a smaller but significant share of Chinese exports accounting for 3.4% of the total. The value of the wood component for upholstered seating can be very low – as low as 10% for leather upholstered furniture. Interestingly, leather used in Chinese furniture is typically sourced abroad, with the US being its primary supplier.

Table 5 Chinese Furniture Exports to the US(Seating)

Furniture - Seating		Percentage of Value	
Subcategory	**2006 Value Million US**	**Total Furniture - Seating**	**Total Chinese Wood Product Exports to US**
Wood Frme,Uphols	613.362019	78.22%	13.41%
Wood Frme,Nt Uphl	153.564649	19.58%	3.36%
Cane,Osier,Bamb,Etc	17.210416	2.19%	0.38%
Total	784.137084	100.00%	17.15%

Paper and Paperboard

Paper products and paperboard represented just under 14% of the total export of Chinese wood products to the US in 2006 with a total value of $630 Million. Subcategories of paper of particular importance include notebooks, box files, and glossy paper/paperboard (Kaolin coated), accounting for 4%, 3.5% and 2.5% of all wood exports respectively. The trade of consumer products to the US and wastepaper is to China is so pronounced that it is not unusual for Chinese container ships to off-load goods at US ports and then return to China with US collected wastepaper.

Table 6 Chinese Paper Exports to the US

Paper/Paperboard		Percentage of Value	
	2006 Value Million-US	**Total Paper/Paperboard**	**Total Chinese Wood Product Exports to US**
Notebooks	187.841931	29.78%	4.11%
Box Files	162.810224	25.82%	3.56%
Paper/Paperboard coated with Kaolin	112.217141	17.79%	2.45%
Toiletr paper and tissue	43.147995	6.84%	0.94%
Paper Paperboard wad to size	56.964384	9.03%	1.25%
Paperpboard wad	19.03717	3.02%	0.42%
Stationary	22.684087	3.60%	0.50%
Labels	11.858265	1.88%	0.26%
Stock toilet paper and sheets	7.214205	1.14%	0.16%
Writing paper	1.829446	0.29%	0.04%
Corrugate	1.261657	0.20%	0.03%
Wallpaper and window trans.	1.369864	0.22%	0.03%
Craft paper	1.336532	0.21%	0.03%
uncoated paperboard, rolls/sheets	0.792032	0.13%	0.02%
Other	0.303376	0.05%	0.01%
Total	630.668309	100.00%	13.79%

Wood and Other Wood Products

Wood and other wood products represent a diverse cross section of products. Most of those that China exports to the US have a high value-added component. Plywood accounts for close to 7% of total Chinese wood exports to the United States. Wood marquetry, such as jewelry cases and tongue and groove, which is used in flooring each account for 3% of total Chinese wood product exports. Builder's joinery and wooden frames each make up less than 2.5% of total Chinese wood product exports. While fiberboard and kitchenware make up less than 1% each. Lumber and rough wood together make up less than ½ of 1% of Chinese wood product exports by value.

Table 7 Chinese Exports of Other Wood Products to the US

Wood and Other Wood Products		Percentage of Value	
	2006 Value Million (US)	Total wood/generic wood products	Total Chinese Wood Product Exports to US
Plywood, Etc.	313.765089	29.77%	6.86%
Othr Articles Of Wood	161.97645	15.37%	3.54%
Wood Marquetry	135.572349	12.86%	2.97%
Blders'Joinry+Carpntr	108.255352	10.27%	2.37%
Tongued,Grooved	135.916311	12.89%	2.97%
Wooden Frames	95.862828	9.09%	2.10%
Fiberboard	35.217122	3.34%	0.77%
Lumber > 6Mm Thick	18.630816	1.77%	0.41%
Tableware+Kitchenware	29.261636	2.78%	0.64%
Veneer Sheet<6Mm Thck	9.703753	0.92%	0.21%
Other	9.884537	0.26%	0.06%
Total	1054.046243	100%	23.05%

Exports of Chinese Wood Products to the World

Chinese exports of wood products to the rest of the world (ROW) have been increasing at a similar rate to exports to the US. The US is the largest consumer by far of Chinese wood products, averaging 62.5% of consumption between 1999-2006 and accounting for 55% of consumption in 2006 (figure 6).

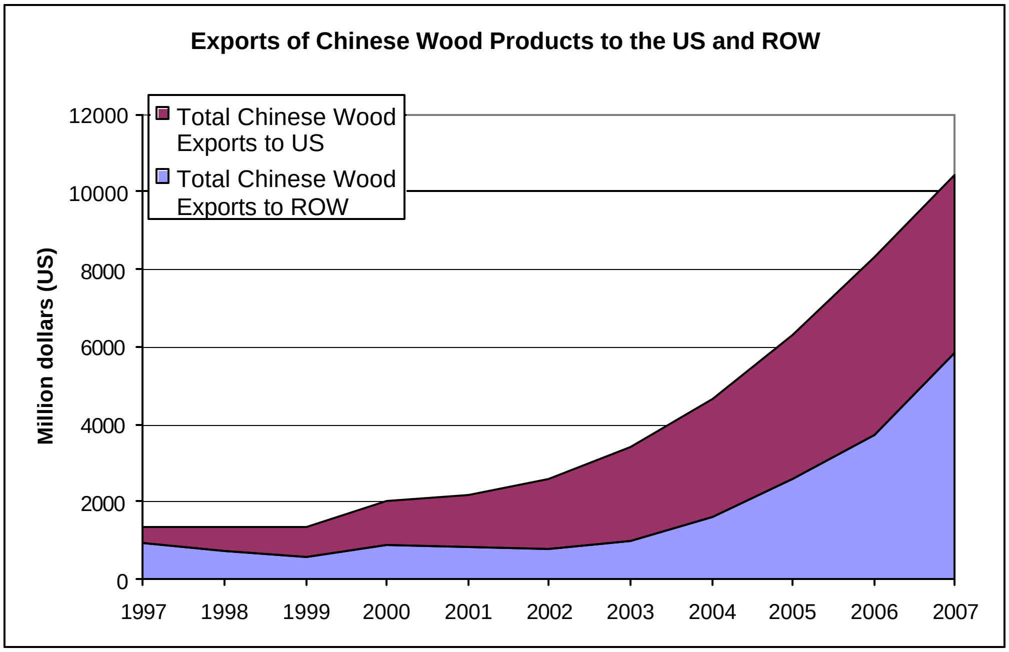

Figure 6 Exports of Chinese Wood Products to US and ROW

The US consumes the bulk of Chinese made furniture and large amounts of almost all other value-added Chinese wood products. As was mentioned in the introduction, the US consumes relatively little raw product, lumber, rough wood and woodpulp. The items listed in table 8 represent all of Chinese wood exports to the US and the ROW and are categorized in such a way to make the estimation of the value of re-exported US wood from China a feasible task. All export categories for Chinese wood products, which are heavily reliant on US-sourced raw material, have grown substantially over the last ten years.

Table 8 Chinese Exports of Wood Products to the US and ROW

Item	*US*	*World Total*	*ROW*	*US percentage*
furniture not seating (not bamboo)	1949.065311	2123.957	174.891473	91.77%
Paper and paperboard	630.668309	1850.04	1219.37125	34.09%
seating framed upholstered	613.362019	848.7777	235.415717	72.26%
Plywood	356.602974	915.9173	559.314348	38.93%
Other wood	210.082707	789.5017	579.418968	26.61%
furniture not seating (bamboo/rattan)	153.761995	179.5364	25.774417	85.64%
seating framed not upholstered	153.564649	273.8989	120.334232	56.07%
Wood Marquetry, ex. Jewelry case	151.198189	207.9292	56.731041	72.72%
Blders'Joinry+Carpntr	136.905936	334.1001	197.19418	40.98%
Tongued,Grooved	108.945539	276.7109	167.765407	39.37%
Wooden Frames	107.068879	130.9635	23.894655	81.75%
Fiberboard	40.305609	209.9445	169.638872	19.20%
Rough and Lumber	19.374485	136.9021	117.527615	14.15%
seating bamboo/rattan	17.210416	NA	NA	NA
Woodpulp	0.68874	17.15095	16.462207	4.02%

Determining the Value of US Wood Products that are Re-exported back to the US as Finished Products

According to Wood Resources International, imported wood is by far the most important raw material used in producing wood products for export from China, despite the fact that it represents less than half of total consumption. Also, because of a propensity to be produced from virgin timber, foreign sourced woodpulp and wastepaper, particularly from the US are consumed in great volume in China.

Determining the precise value of re-exports of US sourced wood materials is difficult because of the myriad of wood product manufacturers in China and the fact that they source materials from many different countries. That data is reported by dollar value and that there are varying degrees of value-added component to the product further complicates the issue. However, using reasonable assumptions suggested by those in the industry, post asserts that is can estimate a reasonable range for the value of US sourced wood products re-exported after processing in China. This is done below for woodpulp, wastepaper and hardwood and softwood lumber and logs.

China's Re-exports of Woodpulp and Wastepaper

Woodpulp and wastepaper are more straightforward to estimate because they are rarely combined with other products for reprocessing, meaning that they represent the bulk of the raw material used in the finished product. In 2006, the China Paper Association reported the following figures on woodpulp and wastepaper production and imports by China.

Table 9 Composition of Chinese Wastepaper and Woodpulp from Domestic and Imported Raw Materials

Million tons	*domestic*	*imported*	*total*	*% imported*	*% of imports from US*	*% of total from US*
wastepaper	5.26	7.96	13.22	60.21%	29.00%	17.46%
woodpulp	22.625	19.625	42.25	46.45%	9.84%	4.57%
sum	27.885	27.585	55.47	49.73%	19.33%	9.61%

60% of all wastepaper processed in China comes from imports. The United States accounts for 29% of all imports and 17% of raw wastepaper consumed in China. 46% of all woodpulp comes from imports. The United States accounts for 10% of all imports and 4.5% of all woodpulp consumed in China. For the weighted total of these two products, 50% is foreign-sourced. The US accounts for 19% of imports and 9.6% of all raw materials for the weighted total of woodpulp and wastepaper.

China produces some paper from agricultural waste. However this is a lower grade of paper that is not exported in large quantities. Using the assumption that Chinese paper for export uses no agricultural waste in its production, we assert that roughly half of the raw material of $1.85 billion in paper/paperboard products exported from China in 2006 was from foreign raw material. 9.6% of the 1.85 billion, or $178 million of reported value-added product came from US sourced raw material.

An important manufactured paper product that is not included in the official statistics is the cardboard boxes used in packaging Chinese consumer goods when shipped overseas. It is estimated that ¾ of the wastepaper/woodpulp that China imports is used to make such containers. Based on this estimate, paperboard used in the packaging of consumer products that is made from foreign sourced raw material could be as high as three times as much as the value of reported paper products, or $534 million.

China's Re-exports of Lumber and Logs

While wastepaper and woodpulp are used primarily in making paper products, timber and roughwood (logs) have a mixed use including furniture, plywood, hardwood flooring and marquetry items, making determination of the composition of wood exported from China difficult. All of these exports can use wood sourced from coniferous, hardwood and tropical trees. Table 10 shows the fraction of lumber produced in China and imported by category of tree. Roughwood imports and domestic production are not shown here because it is assumed that most rough wood is processed into lumber or some other material. Overall, it is estimated that 44% of softwood lumber in China is either imported or produced from foreign material. For hardwood and tropical lumber, this figure is 16.7% and 98.3% respectively.

Table 10 China's Re-Exports of Lumber and Logs

	softwood lumber	*hardwood lumber*	*tropical lumber*	*total*
production from chinese timber	5,751	12,848	50	18,650
production from imported timber	4,569	1,152	600	6,320
total lumber production	10,320	14,000	650	24,970
% from imported timber	44.27%	8.23%	92.26%	25.31%
lumber imports	2,109	1,430	2,370	5,909
(imported lumber + lumber from imported logs) /total	**53.73%**	**16.73%**	**98.33%**	**39.60%**

According to the American Hardwoods Export Council and Nanjing Forestry University, the global demand for US hardwood is shifting from western European and Mexico markets to Chinese and Southeast Asian countries. The most popular species for export to China are oak and western red alder. Industry resources indicate that a dominant proportion of imported US hardwoods go to high-end furniture and interior sectors, of which a large percentage of them would return to the US market in the form of value-added products. The US softwood species that are exported to China by value are (1) other cedars, (2) ponderosa pine, (3) southern yellow pine, (4) Alaskan yellow cedar and (5) sitka spruce. All of these species, with the exception of southern yellow pine, are for non-construction purposes. However, industry resources assert that high priced US softwoods are still not widely used in the Chinese domestic furniture market and most are used in exported furniture.

To calculate the approximate value of US solid wood products re-exported from China, we identify the primary categories namely, softwood log, softwood lumber, hardwood log, hardwood lumber, veneer and tongue and groove that are likely to be re-exported. Although, the US does export other solid wood products to China such as furniture and other miscellaneous items, these are much less likely to be re-exported. Based on industry reports, we make the assumption that most of the identified US wood product categories imported are re-exported, offering the range of 50-70% (table 11). Using this assumption, we calculate the approximate value of US hardwood products re-exported from China. These suppositions yield a total re-export value of US solid wood products between $110-$155 million, most of which is found in furniture. Furthermore, as the world's leading consumer of Chinese wood products, much of the US material re-exported is actually sent back to the United States.

Table 11 Value of US Wood Re-Exported from China

2006	*Re-Export Assumption*			
		50%	60%	70%
$Million (US)	**Total Export Value**	**Re-Export Value**		
Softwood Log	15.29	7.64	9.17	10.70
Hardwood Log	65.77	32.89	39.46	46.04
Softwood Lumber	7.69	3.84	4.61	5.38
Hardwood Lumber	108.69	54.34	65.21	76.08
Veneer	14.75	7.38	8.85	10.33
Tongue and Groove	9.26	4.63	5.55	6.48
Total	**221.44**	**110.72**	**132.87**	**155.01**

What the Shift in Wood Product Processing to China Means for US Industry

In this report, we estimate that between 50-70%, $100-$155 million, of the solid wood products China imports from the US are re-exported. We further estimate that $534 million in paper products exported from China every year are derived from US material. Companies in the US providing the raw material for Chinese processing are in a good position as China's wood processing sector is expected to have continual growth in the coming years. Facing a domestic shortage of fiber, these industries will need to increase imports of foreign raw materials.

China's growing furniture and paper industries, while good for US foresters, have been a negative force for American furniture and paper manufacturers. While many furniture and paper manufacturers in the US have taken advantage of the opportunities present in China, by opening facilities there, there have been closures of domestic facilities.

With rising incomes, China's demand for furniture has been increasing and will continue to increase in the future. American firms positioned to provide for the Chinese market, by opening production facilities in China, will have continued opportunity in this area. Furniture manufacturers in the US will continue to have a market for their high quality, high-end products but will see continued competition from lower-cost Chinese imports.

Restrictions on Chinese Imports and China's Elimination of Re-Export Preferences Could Effect the Relative Profitability of China's Value-Added Wood Sector

Several recent developments in laws pertaining to the trade of US and Chinese wood products could have significant impacts on the relative profitability of various Chinese wood processing sectors. From the American side, import tariffs have been applied to a pair of Chinese paper manufacturers and a large number of furniture manufacturers. In addition, the Chinese have eliminated or reduced re-export preferences for a large category of solid wood products.

On March 30th, the US, in a major escalation of trade pressure on China, said it would impose potentially steep tariffs on Chinese manufactured goods on the ground that China is subsidizing some of its exports. The Department of Commerce sided with US paper companies in suggesting that China subsidized production costs by proving government grants for modernization, low-cost loans, debt forgiveness, tax breaks for export oriented companies and subsidies for suppliers of wood and pulp. The announcement, coming from the U.S. Chamber of Commerce had the immediate effect of imposing duties on two Chinese manufacturers of high-gloss paper, one at 10.9% and the other at 20.4%, calculated by adding up the supposedly illegal subsidies.

Moreover, in November of 2004, the federal government levied a tariff of 8.6% for 115 Chinese manufacturers accounting for 65% of the bedroom furniture imported to the US from China alleging that these companies operate in a non-market economy.

On September 15, 2006 China eliminated or decreased re-export preferences for a large category of solid wood products, including veneer and lumber. As a result, Chinese wood manufacturers will now have to pay VAT and duty on some products that are imported and later re-exported as value-added products, but were previously without any import or export fees. This change continues a trend that lessens the incentives Chinese trade policy offers companies that re-export value added wood products. For a complete discussion of China's elimination of Re-Export Preferences see GAIN Report CH6089. The clear shift in China's policy favors companies that focus on China's domestic market rather than those that rely solely on re-exports.

The combined effect of US tariffs on Chinese imports and China's retraction/decrease of re-export preferences will make Chinese exports of processed wood products, particularly furniture and paper, less competitive in world markets and potentially create new opportunity for US industry.