



**CHINA AND FOREST TRADE IN THE ASIA-PACIFIC REGION:  
IMPLICATIONS FOR FORESTS AND LIVELIHOODS**

**中国与亚太地区国家林产品贸易研究**

**CHINA'S FOREST PRODUCT  
EXPORTS:**

**AN OVERVIEW OF TRENDS BY  
SEGMENT AND DESTINATIONS**

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# **CHINA'S FOREST PRODUCT EXPORTS: AN OVERVIEW OF TRENDS BY SEGMENT AND DESTINATIONS**

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China's Forest Product Exports: An Overview of Trends by Segment and Destinations.  
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## **INTRODUCTION**

China is now well recognized as a major timber importer. According to FAO, China has led the world in imports of industrial roundwood since 2001. An analysis of Chinese Customs data indicates that China imported a total of 120 million cubic meters (RWE) of forest products in 2004. The dramatic impact this surge in imports is having on forests and livelihoods in supplying countries has brought much attention, and some critique, to China's public policies and forest industry. Much less attention has been paid to China's exports and its role in supplying global demand for lower cost forest products.

In only 7 years, China's timber product exports have tripled in volume and increased fourfold in value. The total volume of all forest product exports – including both timber and pulp and paper products – is now one-third of China's total forest product import volume. The total volume of only primary timber products (excluding pulp and paper) exports is now more than two-thirds of China's timber product imports by RWE volume. It is clear that the global demand for processed forest products is a key driver of China's forest products industry and trade.<sup>1</sup>

This paper provides an overview of these forest product exports trends. It considers both product segment and major destination. Trends are identified primarily through use of official Chinese Customs data in which Hong Kong and Taiwan are treated as destinations. The paper first describes the overall export trends and then describes trends by major product category. It next identifies major destination countries/regions. The analysis presented in this paper complements Forest Trends' previous analysis on China's import trends, which is summarized in "Meeting China's demand for forest products: An overview of import trends, ports of entry, and supplying countries, with emphasis on the Asia-Pacific region (2004)."

## **TRENDS IN OVERALL GROWTH AND ITS COMPOSITION**

China's forest product exports tripled in volume between 1997 and 2004 – rising from 12.7 million to 36.2 million cubic meters RWE (see Figure 1.1) – and increased fourfold in value.<sup>2</sup> The overall value of exports in the sector increased by 265 percent during this period, rising from US\$3.6 billion to 13.1 billion. Customs data for the first four months of 2005 shows that this trend has continued.

Timber product exports accounted for more than 75% of China's total exports of forest products each year, significantly more than pulp and paper. The increase in China's timber product exports reflects China's expansion of its export-oriented timber processing industry and international demand for China's low-cost wood products.

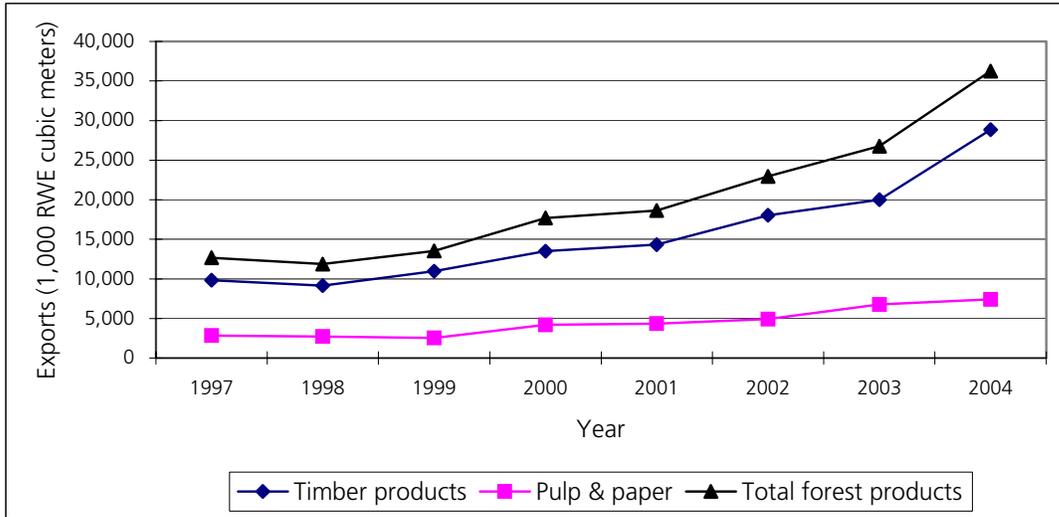
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<sup>1</sup> It should be noted that the ratio of pulp and paper exports to imports may not reflect the full amount of paper leaving China, as the export-oriented manufacturing sector uses substantial amount of wood fiber-based packaging that is not included in paper/paperboard export figures.

<sup>2</sup> The same conversion factors we used for imports were used for converting export volume into RWE volume. For details, please refer to the paper "Meeting China's Demand for forest products: An overview of import trends, ports of entry, and supplying countries, with emphasis on the Asia-Pacific region".

Pulp and paper exports also experienced a steady growth over the last 7 years, although at a lower rate and level than timber products. Between 1997 and 2004, China’s exports of pulp and paper grew by 162 percent in volume and 182 percent in value.

**Figure 1.1: China’s Forest Product Exports 1997-2004**



## TRENDS BY SEGMENT

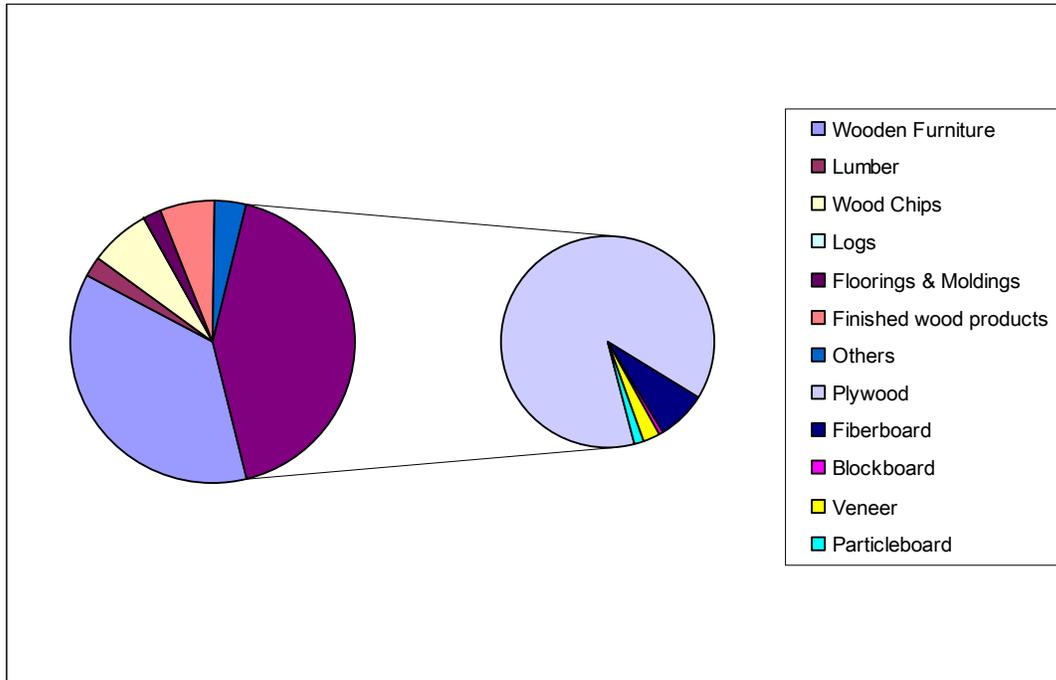
### TIMBER PRODUCTS

Timber products are classified into wood furniture and non-furniture wood products. Non-furniture wood product exports were analyzed according to the following segments: logs (unprocessed);,lumber (sawn wood); wood-based panels (plywood, fiberboard, particleboard, and blockboard); wood chips; wood moldings and floorings; finished wood products and others.

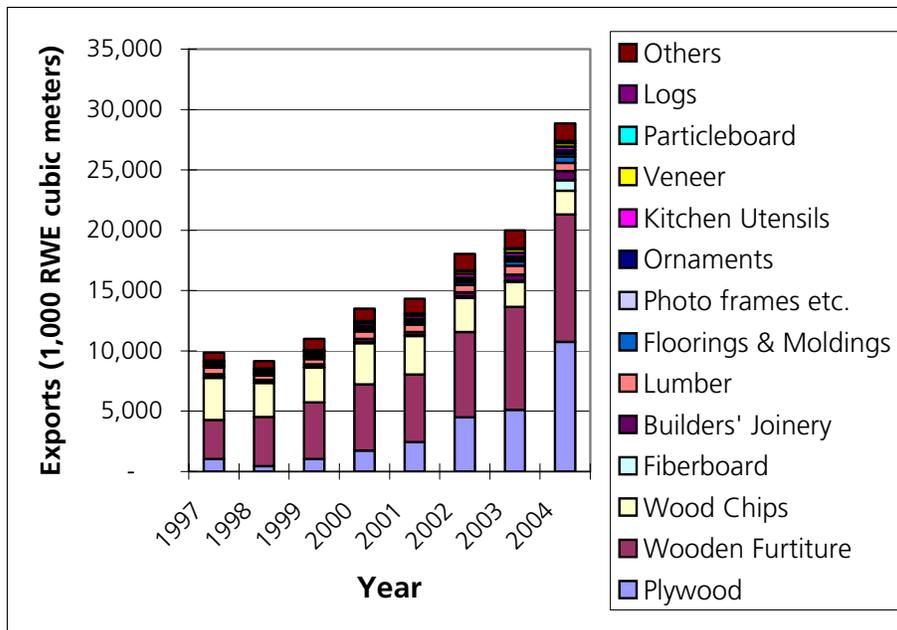
Figure 2.1 shows the composition of China’s timber product exports in 2004. The top segments exported in 2004 were wooden furniture, wood-based panels (plywood in particular), and, to a lesser extent, wood chips. Figure 2.2 further illustrates export trends of each major segment during 1997-2004. Wooden furniture, plywood and wood chips accounted for the largest portion of the strong growth of timber product exports. In 2004, these three segments combined accounted for over 80 percent of China’s total timber product exports.

A detailed analysis on export trends by each major segment follows.

**Figure 2.1: Structure of China's Timber Product Exports in 2004 (% by RWE volume)**



**Figure 2.2: China's Timber Product Exports by Product Type 1997-2004**



## **Logs**

China has exported an insignificant volume of logs in recent years, with the volume steadily declining between 1997 and 2004. In 2004, China exported only 10 percent of the 1997 level of exported logs – consistent with governmental policies encouraging value-added processing.

## **Lumber**

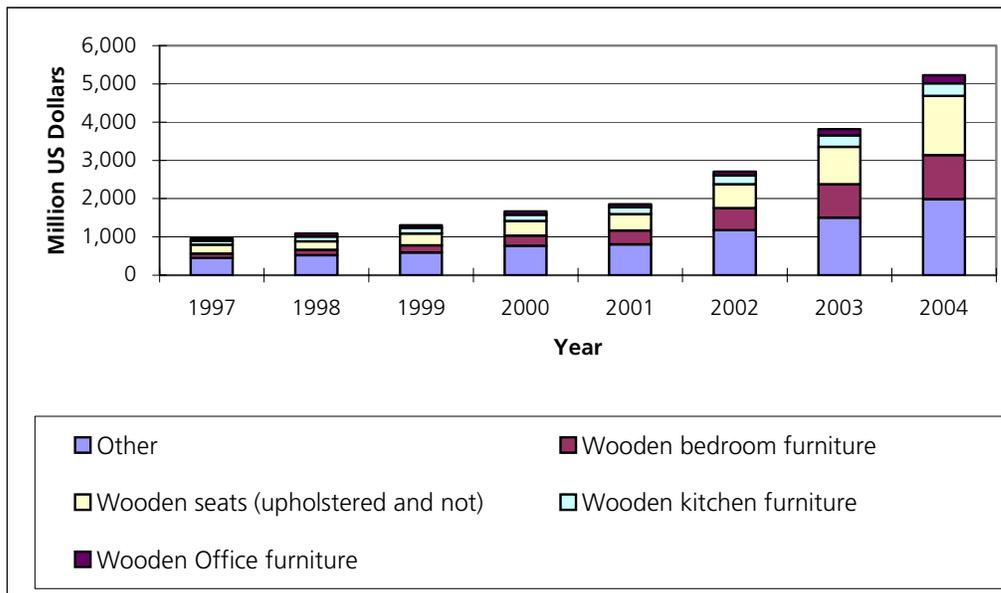
China's exports of lumber grew slowly during the past 8 years. Exports actually dropped in 1998, largely due to the logging ban which decreased the domestic timber supply. Exports increased after 1999 and then flattened between 2000 and 2004. The Chinese government encourages re-exports of lumber from Russia. In late 2001, the State Forestry Administration (SFA) designated the city of Suifenhe – the largest gateway for Russian timber imports in China – as both a log importing *and* exporting base. Other major gateways such as Manzhouli and Erlianhot in Inner Mongolia soon followed with joint designations. Encouraged by this policy, hundreds of timber processing mills were set up along the Sino-Russian border.

## **Wood Furniture**

Wood furniture has been a major driver of the burgeoning increase in China's timber product exports, accounting for over one third of China's total timber product exports each year. In the past 8 years, China's exports of wood furniture grew at an average annual rate of 19%, from 3.2 million RWE cubic meters in 1997 to 10.6 million RWE cubic meters in 2004. In terms of export value, the annual growth rate averaged 28%, rising from 959 million in 1997 to 5.2 billion US dollars in 2004.

Within the wood furniture category, exports of wood bedroom furniture, wooden seats and other wood furniture have grown quickly, and accounted for roughly 90% of total wooden furniture exported each year, as shown in Figure 2.3. Approximately one-third of furniture output each year went to export markets, and China is quickly becoming the world's furniture manufacturing center. Expanding capacity by domestic manufacturers and increasing investments from Hong Kong, Taiwan, Singapore and other Southeast Asian countries since the late 1980s have contributed to this export growth. Some American and European furniture makers have also moved their facilities to China to profit from the low business costs and an abundance of skilled labor. Industry sources indicate that in most cases, export-oriented furniture manufacturers tend to use imported timber for their production. Hardwood logs and lumber are sourced from North America, Southeast Asia, and EU countries, while, to a lesser extent, softwood timber comes from Russia and New Zealand.

**Figure 2.3: China's Wood Furniture Exports by Segments**



### ***Plywood***

Plywood is another fast growing segment for exports. China's plywood exports grew tenfold from 1997 to 2004, rising from one million to 10.7 million RWE cubic meters in only 7 years. China is now the largest producer of plywood in the world, due to China's domestic plywood industry boom. Since 2001 China has become a net exporter of plywood rather than a net importer. Much of the plywood production is from small-scaled mills concentrated in eastern and southern coastal provinces, including Zhejiang, Jiangsu, Fujian and Guangdong, as well as Shandong and Hebei provinces in northern China. In general, the core of Chinese plywood is made of fast-growing poplar timber, while face veneer is mainly made of imported hardwood timber from North America and West Africa and softwood from Russia. Although fast growing plantations have secured abundant material resources for plywood production, a trend is evident that Chinese plywood manufacturers have begun to use imported pine and birch logs for the core of plywood.

China's exports of other panel products – such as veneer, fiberboard (mostly HDF and MDF) and particleboard – have also experienced rapid growth between 1997 and 2004, although the starting volume was low. The fastest growth was evident in exports of fiberboard, with a twelve-fold rise between 1997 and 2004, followed by particleboard with a 628% increase and veneer with a 173% increase. The domestic panel industry's rapid growth also contributed to the surge in exports and is in line with the government's encouragement to utilize timber leftovers. Industry sources indicate that fiberboard and particleboard production is expected to continue to grow quickly, as wood waste and small-diameter logs can be used as raw materials of fiberboard and particle board.

### Wood Chips

China's exports of wood chips have experienced an uneven growth during 1997-2004, hovering between 2.8 million and 3.5 million RWE cubic meters during 1997-2002 before dropping to 2 million in 2003. As a result, the share of wood chips in China's total timber product exports has experienced a downward trend, dropping from 36% in 1997 to 7% in 2004.

### Wood Moldings and Floorings

Exports of wood moldings and floorings rose fivefold between 1997 and 2004. Numerous small-scaled mills concentrated in coastal regions have been the main contributors to this export growth. Most mills use imported timber as raw material. Expansion of the flooring industry continues unabatedly, although manufacturers face a growing pressure through high costs for raw materials.

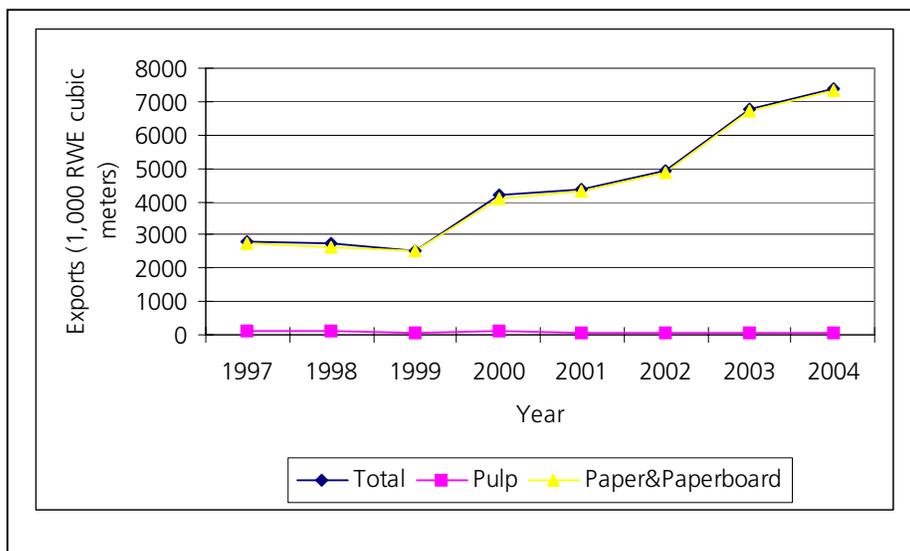
### Finished Wood Products

During 1997-2004, finished wood products, including paint and photo frames, windows, doors and frames and other builders' joinery, ornaments, and kitchen utensils accounted for a relatively small share of China's total timber product exports. Nevertheless, they experienced a rapid growth during this same period. Exports of finished products almost doubled between 1997 and 2004. Within the finished wood products category, ornaments experienced the fastest growth, an increase of 324%, followed closely by frames for paints and photos, 320%, and builders' joinery, which increased 2.6 times between 1997 and 2004.

## PULP AND PAPER

As with timber products, trends in pulp and paper exports between 1997 and 2004 show the Chinese economy's increasing capture of value addition (see Figure 2.4). China exported an insignificant volume of pulp, roughly representing 0.1 percent of total forest product exports in 2004. Meanwhile, exports of paper and paper products grew fast, particularly after 1999. As a result, paper and paper products constitute the bulk of growth in the pulp and paper category and exports of paper far exceed those of pulp.

**Figure 2.4: China's Pulp and Paper Exports 1997-2004**

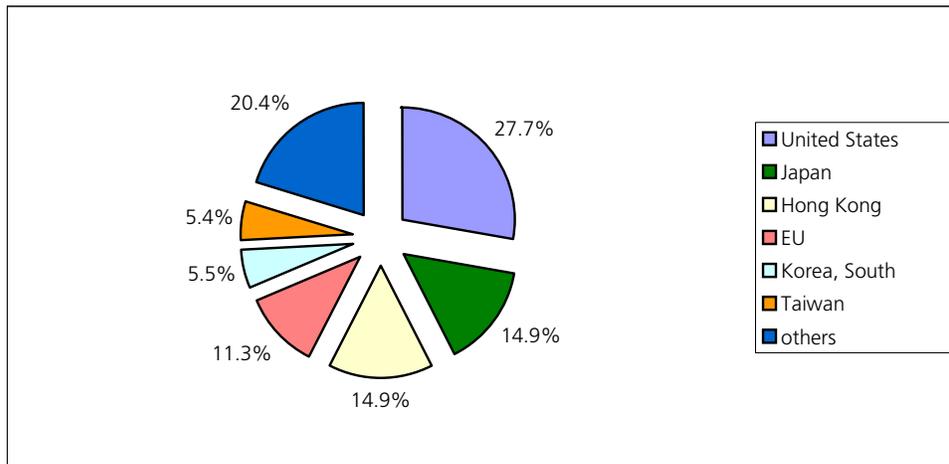


## TRENDS IN EXPORTS TO MAJOR DESTINATION COUNTRIES

Major export markets of China's forest products have been developed, such as Japan, the United States and South Korea. European markets have also grown rapidly in recent years. Figure 3.1 shows the rank of top markets by volume in 2004. In 2004, the United States became the largest market for China's forest product exports with a share of 27.7% by RWE volume, followed by Japan, EU and Hong Kong.<sup>3</sup>

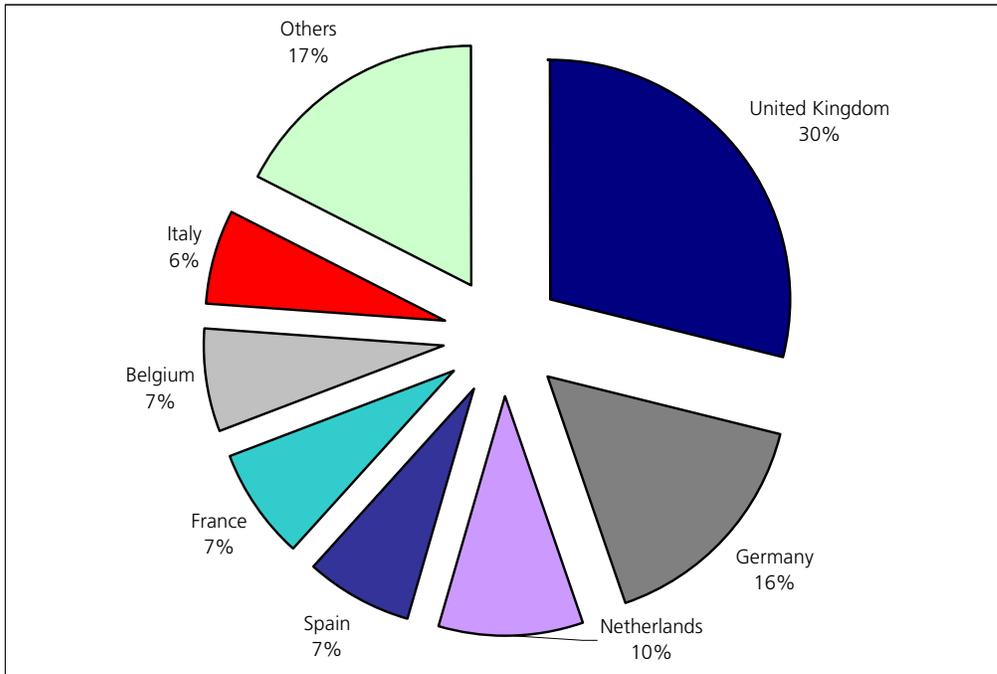
In 2004, 11.3% of China forest product exports went to the EU. However, as shown in Figure 3.2, a few countries dominated forest products imports from China – the UK accounted for one third of the total market share, followed by Germany (16%) and the Netherlands (10%).

**Figure 3.1: Major Destinations of China's Forest Products (by RWE cubic meters)**



<sup>3</sup> Hong Kong's status as an export destination is misleading, as the territory is primarily a transit hub for outbound exports from the mainland. Hong Kong Trade Statistics show that a sizeable share of forest products imported to Hong Kong is to be re-exported. The target markets are mainly the United States, Japan and the EU, depending on products. Therefore, the real share of final destination, for example, the United States, should be larger than shown in this analysis. For example, 99% of Hong Kong's billion dollar (US\$) furniture exports in 2000, 2001, and 2002 were re-exported from mainland China, and 70% of these exports were shipped to the United States, followed by 10% to Japan, and 5% to EU (half of this went to UK). (<http://www.globalwood.org/market/Hkfn.htm>).

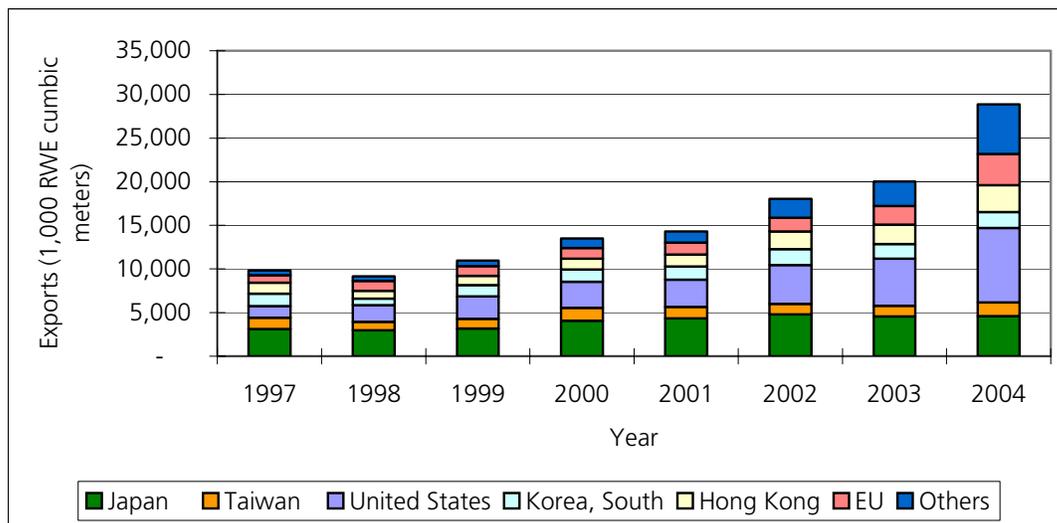
**Figure 3.2: China's Forest Product Exports to the EU in 2004 (by RWE volume)**



## TRENDS IN TIMBER PRODUCT EXPORTS

Figure 3.3 shows the major destinations of China's timber product exports during 1997-2004. Japan was the largest market for China's timber product exports until 2003, when it was overtaken by the United States. While China's exports to Japan, South Korea and Taiwan experienced steady growth, their share of the overall export market declined during the past 8 years, the United States and EU markets expanded significantly. The United States' share has jumped from 13% in 1997 to 30% in 2004, while the EU took 12.4% of China's timber exports in 2004, compared with 8.7% in 1997. Another trend meriting attention is the fact that the total share of these top markets has dropped from 94% in 1997 to 80% in 2004, indicating China's efforts in diversifying the target markets for its timber products.

**Figure 3.3: Leading Destinations for Timber Products (including Furniture)**



### Wood Furniture

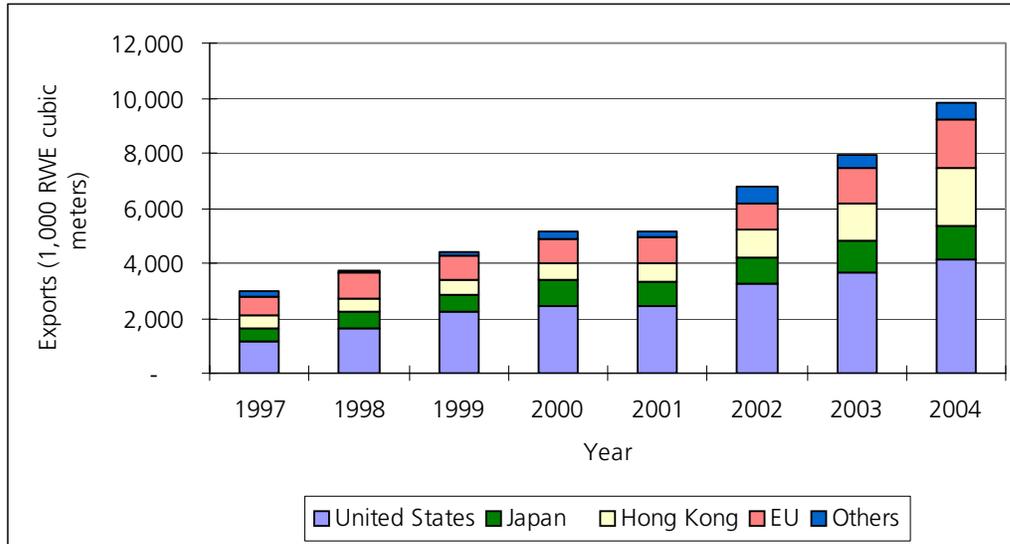
China's wooden furniture exports mainly go to four markets: the United States, Japan, Hong Kong<sup>4</sup> and the EU (see Figure 3.4). 88% of China's wooden furniture exports went to these four markets in 2004. The United States is the largest market for China's wooden furniture. By 2004, with average annual growth rates of 21% since 1997, the United States dominated imports of China's wood furniture, far surpassing any other country. Over 40% (by volume) of China's wood furniture exports went to the United States each year during 1997-2004.

China's wooden furniture exports to Japan, Hong Kong, and EU have also experienced a rapid growth during 1997-2004. Together, these three markets accounted for 48% of China's wooden furniture exports in 2004. Within the EU, United Kingdom and Germany were the two largest. By 2004, UK accounted for 4% of China's wooden furniture exports, and Germany for 3%.

In late 2004, the US Department of Commerce imposed anti-dumping duties on Chinese wooden bedroom furniture producers/exporters. The value of the trade of the affected products had been between US\$1.1 and 1.4 billion. However, China's customs statistics for the first four months of 2005 showed no significant decrease in wood furniture exports to the US – proving industry experts' theory

that this newly imposed trade regulation will not pose a serious threat to the Chinese furniture industry. Nonetheless, China is facing an increased competition from Vietnam in its furniture export markets such as the United States and EU.

**Figure 3.4: Leading Destinations for Wooden Furniture**

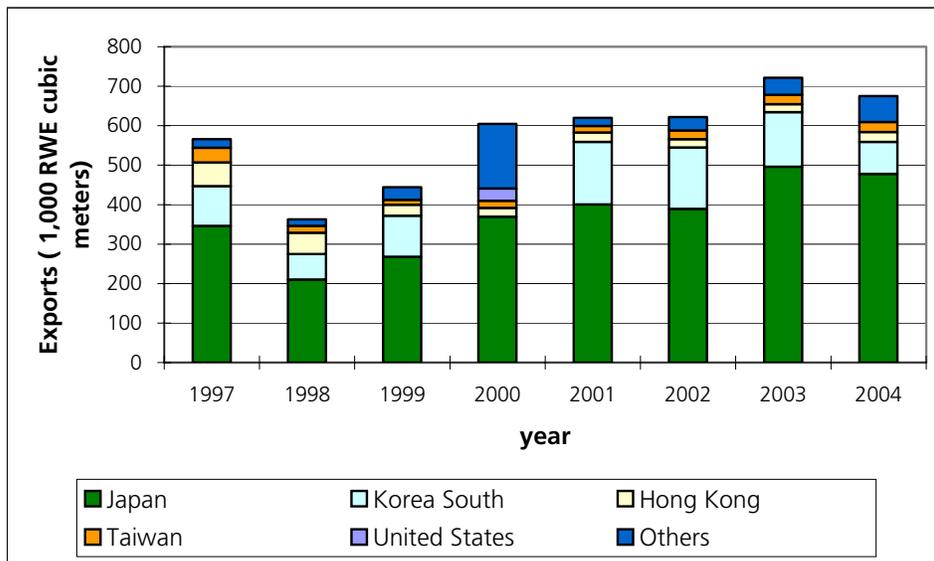


### **Lumber**

As shown in Figure 3.5, Japan and South Korea are the two largest markets for China's lumber exports, followed in distance by Hong Kong and Taiwan. Between 1997 and 2004, the United States was not a major market, except in 2000 when the United States suddenly became the second largest market for China's lumber exports.

<sup>4</sup> See previous note on Hong Kong's status as a destination.

**Figure 3.5: Leading Destinations for Lumber**

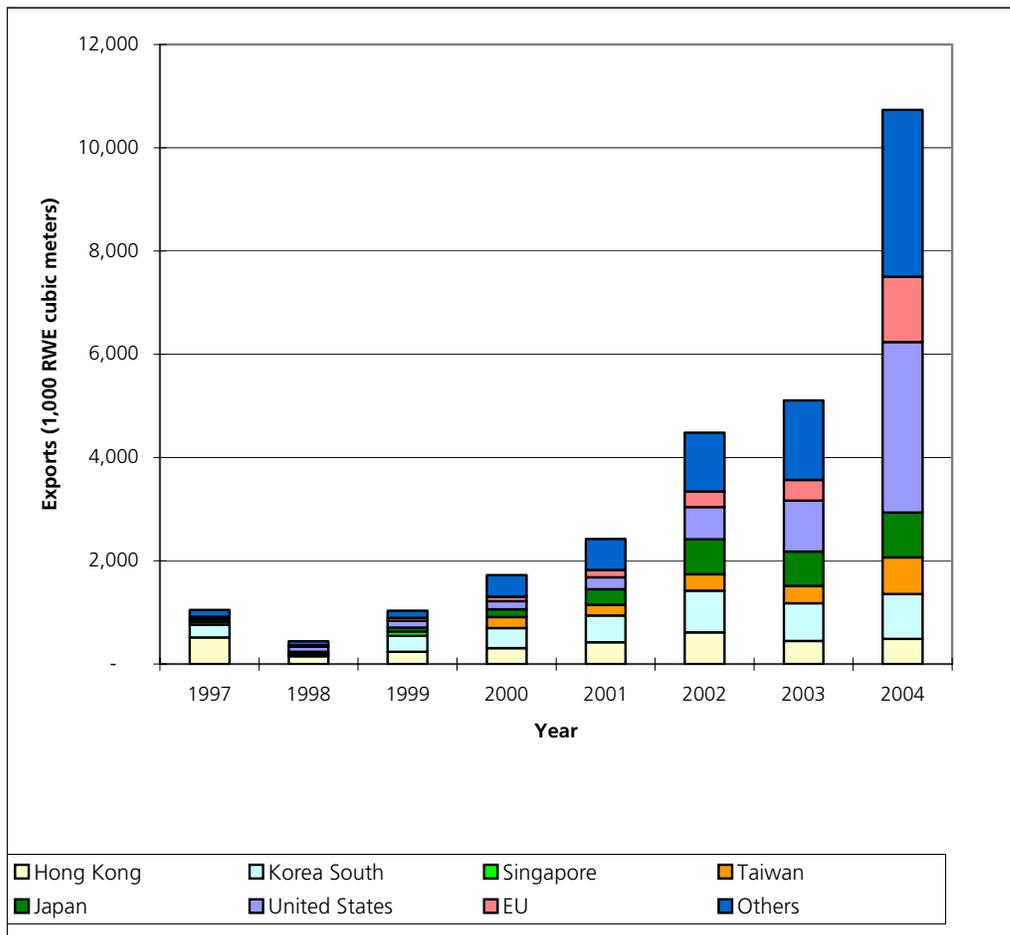


### ***Plywood***

Figure 3.6 shows the top destinations of China’s plywood exports. South Korea and Hong Kong were the two largest markets for China’s plywood until 2003, when the United States took over the number one spot. The United States, Japan, Taiwan and the EU are all fast growing markets, although all started at a relatively low import volume.

Chinese plywood exporters profit from low labor and material costs. However, the environmentally and quality-sensitive European market has started to push Chinese plywood exporters to adopt European norms and standards. Chinese plywood continues to fight against both a lack of consistent quality and a poor quality perception in the world market.

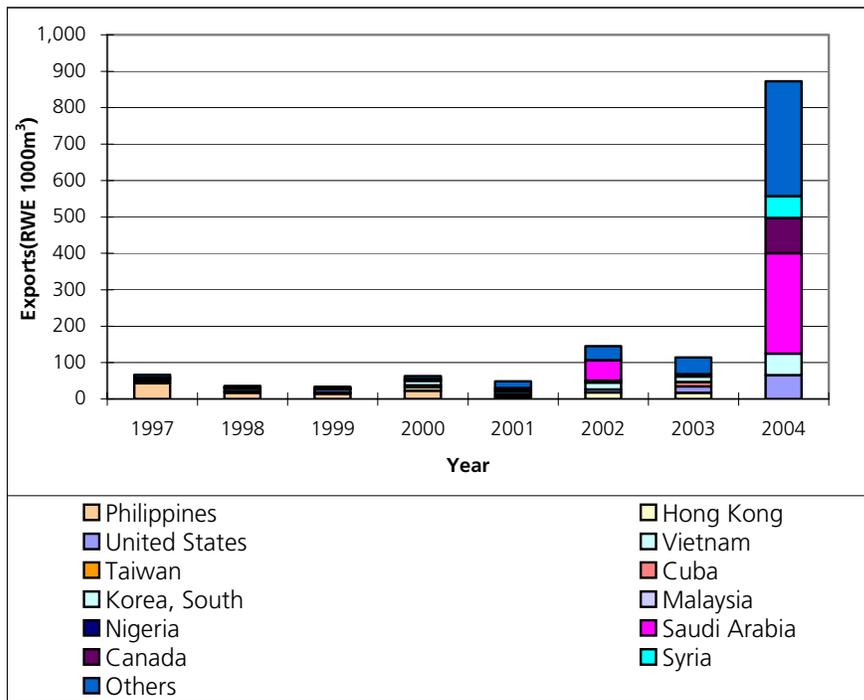
**Figure 3.6: Leading Destinations for Plywood**



**Fiberboard**

Unlike other products, fiberboard export markets are quite diversified, as shown in Figure 3.7. The majority of the target markets for China’s fiberboard had been developing countries such as Philippines, Vietnam, and Malaysia, while exports to the United States remained relatively stable since 1998. China’s fiberboard exports were relatively small and stable during 1997 and 2001. A significant surge occurred since 2002, and Saudi Arabia was the largest market which took one third market share in 2004.

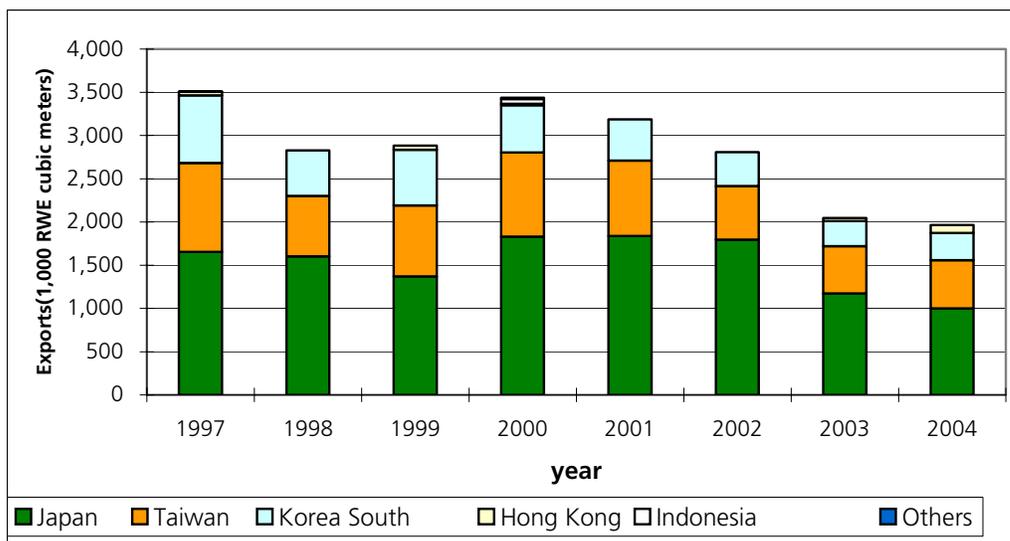
**Figure 3.7: Leading Destinations for Fiberboard**



**Wood Chips**

The top three destinations for China’s wood chips exports are Japan, Taiwan and South Korea (see Figure 3.8). Over 95% of China’s wood chips went to these three markets each year. Among them, Japan was the largest market with an average share of 54% during 1997-2004, followed by Taiwan 27% and South Korea 17%.

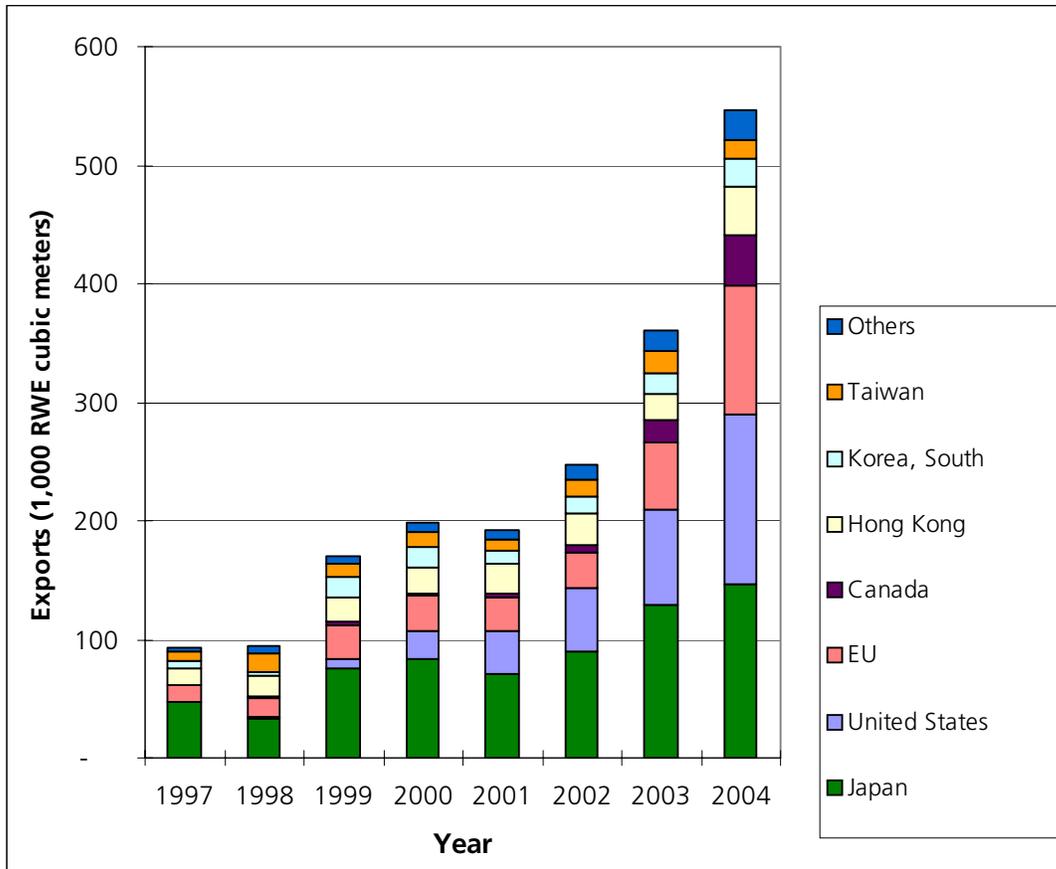
**Figure 3.8: Leading Destinations for Wood Chips**



### Wood Moldings and Floorings

Japan was the largest market for China’s wood molding and floorings between 1997 and 2004, with the United States and EU catching up quickly (see Figure 3.9). By 2004, the share of Japan, the United States and the EU was 27%, 26% and 20%, respectively, compared with 50%, 1% and 15% in 1997. USDA imports data show that China became the largest supplier of hardwood floorings, the second largest supplier of hardwood moldings and the seventh largest supplier of softwood moldings in 2003.

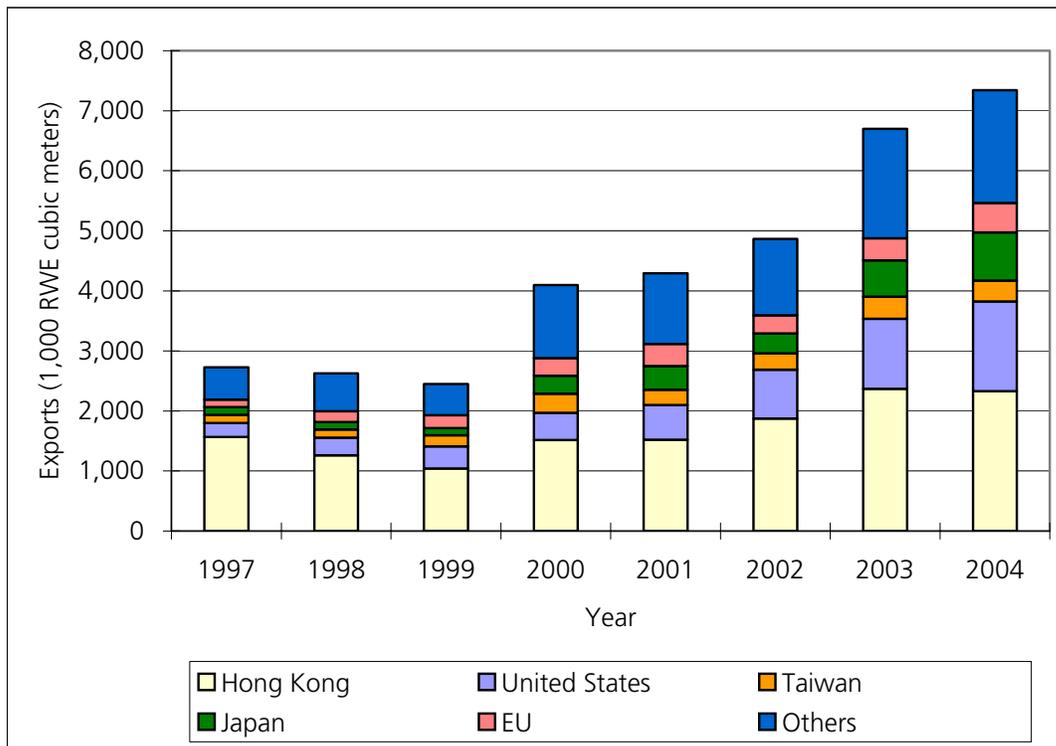
**Figure 3.9: Leading Destinations for Wood Moldings and Floorings**



### TRENDS IN PULP AND PAPER EXPORT MARKETS

The major markets of China’s paper and paperboard are Hong Kong, the United States, Japan, Taiwan and EU (see Figure 3.10). While exports to Hong Kong remained relatively stable, exports to the United States, Japan and the EU to a lesser extent have experienced rapid growth during 1997-2004. The US market share rose from 8% in 1997 to 20% in 2004. In the mean time, Hong Kong’s share dropped from 57% in 1997 to 32% in 2004. As a large portion of Hong Kong’s imports is for re-export, a part of this drop in share may be offset by increases in real destination country’s share.

**Figure 3.10: Leading Destinations for Paper and Paperboard**



## CONCLUSIONS

During 1997-2004, China's forest product exports have experienced a rapid growth. While wooden furniture, plywood, paper and wood chips constituted the bulk of China's total forest product exports, fiberboard, particleboard, wood floorings and moldings, and builder's joinery exports have also experienced significant growth.

The export boom is primarily characterized by dramatic increases in plywood and wooden furniture exports, and to some degree in paper – all highly processed and value-added products which only seven years ago comprised a small portion of China's export trade both in terms of total volume as well as in relation to overall exports. China used to be a net importer of plywood before 2001 and is now the largest plywood producer in the world. Its plywood exports have increased by more than 1000% in only 7 years. Wooden furniture export trends show a similar pattern.

The largest share of Chinese exports of timber product exports were shipped to Japan until 2004, when the United States took over as the largest importer of Chinese products, with a 27% share (by roundwood equivalent), followed by Japan, the European Union and Hong Kong. Hong Kong itself, however, re-exports to the United States, the European Union and Japan – thus these destination markets are even larger. Exports to the United States and the European Union grew fastest due to a high demand for plywood, moldings and floorings, paper and furniture. It is noteworthy that China is diversifying its target

markets for timber products: the total share of top markets has dropped from 94% to 80% between 1997 and 2004.

The combination of low labor costs and cheap imported raw materials has enabled China to provide a wide range of products for the international market at highly competitive prices. Over the past 4-7 years, the United States, the EU (primarily the UK) and other new target markets have increasingly been taking advantage of the cost advantages provided by Chinese manufacturers. Many US and European companies are now basing some of their operations in China, although there is increasing competition from other developing countries, such as Viet Nam in the furniture market. Low prices have also triggered anti-dumping investigations by North American and European players.

This analysis suggests two strategic issues for the Chinese export oriented industry: First, its emergence and rapid growth has been based in part on low-cost imports, much of it possibly illegal or at least controversial origin – and except for Russia, these supplies appear to be declining in the near term, while at the same time, concern and action to reduce illegal logging and trade mount. This suggests that the industry may face increasing costs of imported supply as it shifts towards legal and sustainable supply. Second, Chinese industry's growing reliance on the North American and European export markets make it increasingly vulnerable to changing buyer preferences or trade regulations related to verifiably legal or certified products in these countries.

Perhaps most importantly: Previous analyses and public debate have focused on China's rapid rise as an importing nation and its role in "driving" or at least magnifying illegal logging in many of its supplying countries. This new analysis reveals the critical role of developed countries, particularly the US and those in the EU, and their growing demand for low-cost forest products, as key "drivers" in these global forest product commodity chains. For this reason, efforts to address illegal logging and associated trade as well as the broader challenge of advancing sustainable forestry globally will require complementary actions by governments and key actors in not only producer countries, but also countries that are major importers and consumers of processed forest products. These countries, and their importers and consumers, have substantial leverage over the market, and thus the opportunity to play their part in helping to transform this trade and its impacts on the world's forests and forest people.