The information and statistics set out in this section have in part been extracted from government official publications. No independent verification has been carried out on such information and statistics. We believe that the sources of these information are appropriate sources for such information and reasonable care has been exercised by our Directors in extracting and reproducing such information. We have no reason to believe that such information is false or misleading or that any fact has been omitted that would render such information false or misleading. Our Company, the Joint Sponsors, the Joint Global Coordinators, the Underwriters, their respective directors and advisers and any other party involved in the Global Offering make no representation as to the accuracy of such information and statistics, which may not be consistent with each other or other information compiled by other official or unofficial sources and may not be complete or up-to-date.

This section and the "Business" section also contain certain data on the production and consumption of timber products in China. Such data should be read with caution as the Chinese government has adopted a quota system for logging. For more details of this quota system, please refer to the sections headed "Business — Our Principal Business — Permits and quotas" and "Regulatory Overview — Forestry and deforestation".

Investors should also note that we commissioned CFK, our technical consultant and an Independent Third Party, to prepare an independent report on our forestry operations, which is reproduced in Appendix V to this prospectus. Certain information and statistics from this report have been included in this prospectus, including this section and the "Business" section. CFK is a consulting firm focusing on the forestry industry. The amount of fees payable to CFK is not contingent on our Company's approval for its work. Investors should note the scope of work, report qualifications and assumptions of CFK's independent technical report which are set out in the introductory section of the report at pages V-1 to V-3. CFK's key qualifications include, but not limited to, its limited visual inspection of the forests on various occasions in 2008 and in March and August 2009, absence of new inventory undertaking and inability to independently verify the forest area description.

#### INTRODUCTION

The global forestry industry provides timber resources and processed wood products for various industries. The industry is generally divided into upstream and downstream activities. Upstream activities focus on forest resource management including forest planning, planting, stand tending and/or management of the forest as well as harvesting and transportation of logs. The wood-based downstream activities consist of processing of logs into products such as sawn timber, plywood, veneer, reconstituted panel products, pulp and paper, as well as further value-added processing activities such as production of mouldings and other housing and building materials including flooring and furniture.

#### **GLOBAL FOREST RESOURCES**

#### Overview

Forest is defined in the FAO's Global Forest Resources Assessment 2005 as land spanning more than 0.5 hectares with trees higher than 5 m and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is

predominantly under agricultural or urban land use. According to the FAO, total world forest area as at 2005 is estimated at 3,952 million hectares, or approximately 30% of total land area, which corresponds to an average of 0.6 hectares per capita.

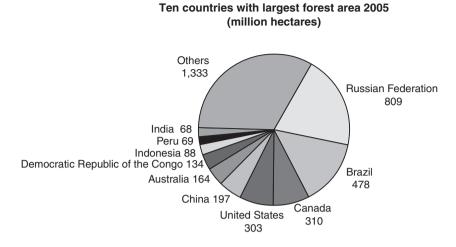
# **Distribution of forests**

A subregional summary of the distribution of forests is shown in the table below. Europe accounts for one-quarter of total forest area, followed by South America and North and Central America with 21.0% and 17.9% respectively.

# Distribution of forests by subregion 2005

Region/subregion	Forest area (1 000 hectares)	% of global forest area
Eastern and Southern Africa Northern Africa Western and Central Africa Total Africa	226,534 131,048 277,829 <b>635,412</b>	5.7% 3.3% 7.0% <b>16.1%</b>
East Asia South and Southeast Asia Western and Central Asia Total Asia	244,862 283,127 43,588 <b>571,577</b>	6.2% 7.2% 1.1% <b>14.5%</b>
Total Europe	1,001,394	25.3%
Caribbean Central America North America <b>Total North and Central America</b>	5,974 22,411 677,464 <b>705,849</b>	0.2% 0.6% 17.1% <b>17.9%</b>
Total Oceania	206,254	5.2%
Total South America	831,540	21.0%
World	3,952,025	100%

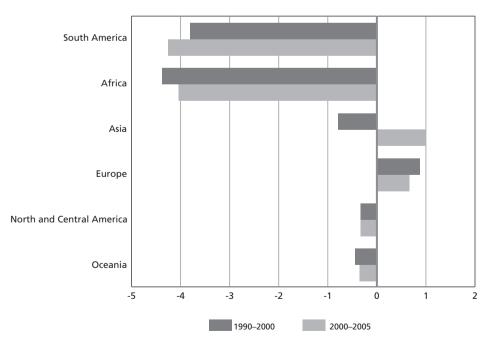
The area of forest is unevenly distributed in the world. The ten most forest-rich countries account for approximately two-thirds of total forest area (see the diagram below).



Source: FAO's Global Forest Resources Assessment 2005

#### Changes of forest area

Global forest area continued to decrease during 1990-2005 but the rate of net loss was slowing. Deforestation, mainly conversion of forests to agricultural land, continued at an alarmingly high rate — about 13 million hectares per year. At the same time, forest planting, landscape restoration and natural expansion of forests have significantly reduced the net loss of forest area. Net loss in forest area in the period 2000–2005 is estimated at 7.3 million hectares per year in the period 1990–2000. Regional changes of forest area is shown in the diagram below.



Annual net change in forest area by region 1990–2005 (million hectares per year)

Source: FAO's Global Forest Resources Assessment 2005

The ten countries with the largest net loss per year in the period 2000–2005 had a combined net loss of forest area of approximately 8.2 million hectares per year. On the net gain side, the ten countries with the largest net gain per year for the same period had a combined net gain of forest area of approximately 5.1 million hectares per year due to afforestation efforts and natural expansion of forests. The large increase in forest area for China was due to recent, large-scale afforestation programmes.

#### Ten countries with largest annual net loss in forest area 2000-2005

Country	Annual Change (1 000 hectares/year)
Brazil	-3,103
Indonesia	-1,871
Sudan	-589
Myanmar	-466
Zambia	-445
Tanzania	-412
Nigeria	-410
Congo	-319
Zimbabwe	-313
Venezuela	-288
Total	-8,216

Source: FAO's Global Forest Resources Assessment 2005

# Ten countries with largest annual net gain in forest area 2000-2005

Country	Annual Change (1 000 hectares/year)
China	4,058
Spain	296
Vietnam	241
United States	159
Italy	106
Chile	57
Cuba	56
Bulgaria	50
France	41
Portugal	40
Total	5,104

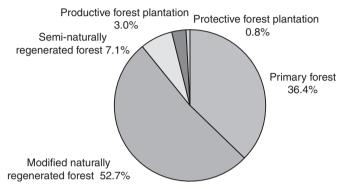
Source: FAO's Global Forest Resources Assessment 2005

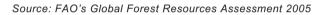
#### Forest characteristics

According to the FAO's Global Forest Resources Assessment 2005, more than one-third (36.4%) of global forest area is classified as primary forest, i.e. forest of native species, in which there are no clearly visible indications of human activity and ecological processes are not significantly disturbed. The largest expanse of primary forest is found in South America (the Amazon). Countries in North and Central America and the Russian Federation have also

classified a relatively high proportion of their forests as primary. Slightly more than half of all forests (52.7%) are considered modified naturally regenerated forests (i.e. forests of naturally regenerated native species in which there are clearly visible indications of human activity) and 7.1% are classified as semi-naturally regenerated forests (i.e. forests comprising native species, established through planting, seeding or assisted natural regeneration). Forest plantations (i.e. forests of introduced species, and in some cases native species, established through planting or seeding) constitute an estimated 4% of forest area, classified either as productive (3% of total forest area) or protective (0.8% of total forest area).

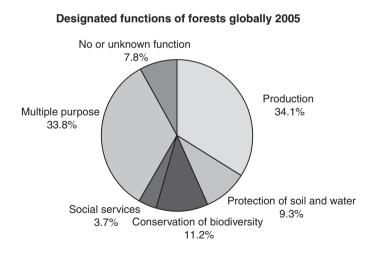
#### **Forest characteristics 2005**





#### **Designated functions of forests**

In 2005, about one-third of the world's forests were primarily for production of wood and non-wood forest products, 11.2% for the conservation of biodiversity and 9.3% for protection of soil and water.



## Forest designated for production

At the global level, in 2005, 34% of total forest area had production designated as its main purpose. The table below shows a summary by region/subregion of the 2005 status of these areas.

## Area of forest designated primarily for production in 2005

	Area of forest designated primarily for production		
Region/subregion	1 000 hectares	% of forest area	
Eastern and Southern Africa	41,051	19%	
Northern Africa	44,185	35%	
Western and Central Africa	52,796	45%	
Total Africa	138,032	30%	
East Asia	125,488	51%	
South and Southeast Asia	120,098	42%	
Western and Central Asia	9,674	22%	
Total Asia	255,260	45%	
Total Europe	724,308	73%	
Caribbean	980	28%	
Central America	3,312	15%	
North America	40,499	6%	
Total North and Central America	44,790	6%	
Total Oceania	22,449	11%	
Total South America	96,346	12%	
World	1,281,185	34%	

## **Productive forest plantations**

Productive forest plantations are defined in the FAO's Global Forest Resources Assessment 2005 as forest plantations predominantly intended for provision of wood, fibre and non-wood forest products.

The total area of productive forest plantations reported in 2005 was about 109 million hectares, which corresponds to approximately 3% of the global forest area. The area by region and subregion is presented in the following table.

# Area of productive forest plantations in 2005

	Area of productive forest plantations			
Region/subregion	1 000 hectares	% of forest area		
Eastern and Southern Africa	2,792	1.3%		
Northern Africa	6,033	5.1%		
Western and Central Africa	1,939	1.9%		
Total Africa	10,764	2.5%		
East Asia	30,006	12.3%		
South and Southeast Asia	11,825	4.2%		
Western and Central Asia	2,591	5.9%		
Total Asia	44,422	7.8%		
Total Europe	21,469	2.2%		
Caribbean	280	6.9%		
Central America	240	1.1%		
North America	17,133	2.5%		
Total North and Central America	17,653	2.5%		
Total Oceania	3,833	1.9%		
Total South America	11,326	1.4%		
World	109,469	3.0%		

In terms of annual increase in productive forest plantations, China ranked the first for the period 2000-2005, followed by the Russian Federation and the United States. These three countries together accounted for approximately 82% of the global annual increase in productive forest plantations. The ten countries with the largest area of production forest plantations are shown in the table below.

# Ten countries with greatest annual increase in productive forest plantations area 1990–2005

Country		f productive ons (1 000 h	Annual change (1 000 hectares)	Annual change rate (%)	
	1990	2000	2005	2000-2005	2000-2005
China	17,131	21,765	28,530	1,353	5.6
Russian Federation	9,244	10,712	11,888	235	2.1
United States	10,305	16,274	17,061	157	0.9
Vietnam	664	1,384	1,792	82	5.3
Indonesia	2,209	3,002	3,399	79	2.5
Chile	1,741	2,354	2,661	61	2.5
Australia	1,023	1,485	1,766	56	3.5
Portugal	383	867	1,067	40	4.2
Republic of Korea	748	1,188	1,364	35	2.8
Turkey	1,459	1,763	1,916	31	1.7

#### **Commercial growing stock**

The amount of commercial growing stock in the world reached 202,325 million m<sup>3</sup> in 2005, which represented about 47% of total growing stock. The trends for commercial growing stock are shown in the table below. At the global level, the percentage of commercial growing stock remained constant except for a small decrease in Europe during 1990-2000.

#### Trends in commercial growing stock 1990-2005

Region/subregion	egion Commercial growing stock					
		Million m <sup>3</sup>		% of tot	al growin	g stock
	1990	2000	2005	1990	2000	2005
Eastern and Southern Africa	2,519	2,321	2,234	23	22	22
Northern Africa	754	762	767	27	29	30
Western and Central Africa	13,336	13,162	13,407	24	25	26
Total Africa	16,609	16,245	16,408	24	25	25
East Asia	14,013	15,976	17,065	88	87	86
South and Southeast Asia	12,705	9,717	8,160	39	36	34
Western and Central Asia	1,813	1,867	1,890	61	60	60
Total Asia	28,531	27,561	27,115	55	56	58
Total Europe	66,063	60,648	61,245	65	58	57
Caribbean	175	245	283	53	61	64
Central America	717	599	563	20	19	19
North America	64,816	66,376	66,968	89	89	89
Total North and Central America	65,709	67,220	67,815	86	86	86
Total Oceania	3,849	3,777	3,751	51	51	51
Total South America	28,059	26,666	25,992	20	20	20
World	208,820	202,116	202,325	47	46	47

#### GLOBAL TIMBER MARKET

#### Consumption

ITTO's members represent approximately 80% of the world's tropical forests and represent about 90% of the global tropical timber trade. According to the ITTO 2008 Report, consumption of timber by its members increased from 1.75 billion m<sup>3</sup> in 2004 to an estimated 1.79 billion m<sup>3</sup> in 2008. The table below shows the total timber consumption by all ITTO members.

#### Consumption of all timber by ITTO members (1000 m<sup>3</sup>)

	2004	2005	2006	2007	2008 (estimate)
Logs	1,311,740	1,355,952	1,319,850	1,345,827	1,361,050
Sawnwood	362,730	369,518	371,537	362,484	349,650
Veneer	10,008	9,793	9,781	9,624	9,600
Plywood	66,769	68,252	67,433	73,075	74,172

Source: ITTO 2008 Report

#### Production

On the production side, production of timber by ITTO members increased from 1.67 billion  $m^3$  in 2004 to an estimated 1.73 billion  $m^3$  in 2008. The table below shows the total timber production by all ITTO members.

#### Production of all timber by ITTO members (1000 m<sup>3</sup>)

	2004	2005	2006	2007	2008 (estimate)
Logs	1,250,391	1,292,731	1,254,750	1,280,453	1,309,455
Sawnwood	348,898	357,090	363,318	354,473	336,343
Veneer	10,416	10,496	10,408	10,258	10,241
Plywood	65,080	68,595	69,423	76,060	76,033

Source: ITTO 2008 Report

#### Major timber consuming / producing countries

According to ITTO's forecast for 2008, the United States is the largest ITTO consuming member in logs and sawnwood (its consumption in these categories accounts for 28.5% and 29.1% respectively in their respective ITTO total consumption) and is the second largest ITTO consuming member in plywood (22.7% of ITTO total plywood consumption). China is also one of the largest timber consuming countries — among all the ITTO members, its consumption estimate for 2008 ranks the third for logs, the second for sawnwood, the first for veneer and plywood, and in terms of percentage of ITTO total consumption, represents 7.1%, 11.0%, 30.7% and 37.9% respectively in their respective categories.

On the production side, the United States is the largest ITTO producing member in logs and sawnwood with its production accounting for 30.3% and 22.4% respectively of ITTO total production in their respective categories. Canada is also one of the largest timber producing countries. Canada's production in logs, sawnwood and veneer ranks the second among all the ITTO members with its production accounting for 15.4%, 13.7% and 5.9% respectively of the ITTO total production in their respective categories. China's production in veneer and plywood ranks the first among all the ITTO members representing 29.3% and 46.8% respectively of the ITTO total production in their respective categories.

The tables below set out the five largest consuming / producing ITTO members in logs, sawnwood, veneer and plywood.

Country	Forecast for logs consumption in 2008 _(1000 m <sup>3</sup> )	% of total logs consumption by all ITTO members	Country	Forecast for logs production in 2008 (1000 m <sup>3</sup> )	% of total logs production by all ITTO members
United States	387,392	28.5%	United States	396,358	30.3%
Canada	203,230	14.9%	Canada	201,254	15.4%
China	97,167	7.1%	Sweden	68,040	5.2%
Sweden	72,525	5.3%	China	67,700	5.2%
Finland	72,234	5.3%	Germany	67,087	5.1%
All ITTO members	1,361,050	100%	All ITTO members	1,309,455	100%

#### Top five logs consuming/producing ITTO members

Source: ITTO 2008 Report

#### Top five sawnwood consuming/producing ITTO members

Country	Forecast for sawnwood consumption in 2008 (1000 m <sup>3</sup> )	% of total sawnwood consumption by all ITTO members	Country	Forecast for sawnwood production in 2008 (1000 m <sup>3</sup> )	% of total sawnwood production by all ITTO members
United States	101,758	29.1%	United States	75,291	22.4%
China	38,444	11.0%	Canada	46,000	13.7%
Canada	23,684	6.8%	China	32,200	9.6%
Germany	18,760	5.4%	Germany	24,600	7.3%
Japan	18,673	5.3%	Sweden	17,210	5.1%
All ITTO members	349,650	100%	All ITTO members	336,343	100%

Source: ITTO 2008 Report

#### Top five veneer consuming/producing ITTO members

Country	Forecast for veneer consumption in 2008 (1000 m <sup>3</sup> )	% of veneer consumption by all ITTO members	Country	Forecast for veneer production in 2008 (1000 m <sup>3</sup> )	% of veneer production by all ITTO members
China	2,945	30.7%	China	3,000	29.3%
Republic of Korea	736	7.7%	Canada	600	5.9%
Italy	607	6.3%	New Zealand	513	5.0%
Germany	435	4.5%	Republic of Korea	481	4.7%
New Zealand	412	4.3%	Italy	470	4.6%
All ITTO members	9,600	100%	All ITTO members	10,241	100%

Source: ITTO 2008 Report

#### Top five plywood consuming/producing ITTO members

Country	Forecast for plywood consumption in 2008 (1000 m <sup>3</sup> )	% of plywood consumption by all ITTO members	Country	Forecast for plywood production in 2008 (1000 m <sup>3</sup> )	% of plywood production by all ITTO members
China	28,123	37.9%	China	35,616	46.8%
United States	16,825	22.7%	US	11,986	15.8%
Japan	6,852	9.2%	Japan	3,101	4.1%
Canada	2,877	3.9%	Canada	2,000	2.6%
Republic of Korea	2,118	2.9%	Finland	1,410	1.9%
All ITTO members	74,172	100%	All ITTO members	76,033	100%

Source: ITTO 2008 Report

#### FOREST RESOURCES IN CHINA

#### Overview

According to the FAO's Global Forest Resources Assessment 2005, China has approximately 197 million hectares of forest and ranks the fifth in the world after Russian Federation, Brazil, Canada and US. However, China's forest area per capita is approximately 0.2 hectare, only about 33.3% of the global average (approximately 0.6 hectare) and is much lower than the other four largest forest area countries (Russian Federation: 5.7 hectares, Brazil: 2.5 hectares, Canada: 9.7 hectares, US: 1.0 hectare).

China's forest area, in terms of percentage of land area, is 21.2% and is much lower than the world average (30.3%) as well as the other four largest forest area countries (Russian Federation: 47.9%, Brazil: 57.2%, Canada: 33.6%, US: 33.1%).

The forest growing stock in China is, by area, 67 m<sup>3</sup> per hectares, which is only about 60.9% of the global average (110 m<sup>3</sup> per hectares) and is much lower than the other four largest forest area countries (Russian Federation: 100 m<sup>3</sup> per hectares, Brazil: 170 m<sup>3</sup> per hectare, Canada: 106 m<sup>3</sup> per hectare, US: 116 m<sup>3</sup> per hectare).

# Comparison of China's forest area and growing stock with the world and the four largest forest area countries 2005

	Forest area (1000 hectares)	Forest area as % of total land	Forest area per capita (hectares)	Forest growing stock by area (m³/hectare)
Russian Federation	808,790	47.9%	5.7	100
Brazil	477,698	57.2%	2.5	170
Canada	310,134	33.6%	9.4	106
US	303,089	33.1%	1.0	116
China	197,290	21.2%	0.2	67
World	3,952,025	30.3%	0.6	110

Source: FAO's Global Forest Resources Assessment 2005, World Bank, US Census Bureau, Statistics Canada

# **Distribution of forests**

According to the SFA's Report on Basic Facts of China's Forestry 2005, in terms of geographical distribution, China's forests are abundant in the north-east and south-west areas but are scarce in other areas such as the north and north-west areas. The gross forest area in Heilongjiang, Jilin, Inner Mongolia, Sichuan, Yunnan and Tibet accounts for 51.4% of the national forest area and 70% of the national forest stock.

The following table sets out the top five provinces in China by forest area:

Province	Area of forest (1000 hectares)
Inner Mongolia	20,506.7
Heilongjiang	
Yunnan	15,600.3
Sichuan	14,643.4
Tibet	13,896.1

Source: China Forestry Statistical Yearbook 2007

The following table sets out the top five provinces in China by forest stock volume:

Province	Forest stock volume (1000 m³)
Tibet	2,266,064
Sichuan	1,495,434
Yunnan	1,399,292
Heilongjiang	1,375,023
Inner Mongolia	1,101,532

Source: China Forestry Statistical Yearbook 2007

For the age class of the forest resources, the young and middle-aged forests has a larger proportion in China's forests, and accounts for approximately 67.9% of national forest area.

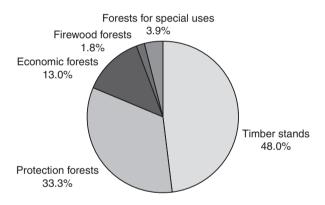
## Age-class structure of China's forest resources

	Forest area (1000 hectares)	% of total	Forest stock (1000 m³)	% of total
young forest	47,238	33.1%	1,284,966	10.6%
middle-aged forest	49,644	34.8%	3,425,722	28.3%
near-mature forest	19,987	14.0%	2,245,510	18.6%
mature forest	17,148	12.0%	3,016,610	24.9%
over-mature forest	8,770	6.1%	2,124,829	17.6%
Total	142,787	100%	12,097,637	100%

Source: SFA's Major Results of the Sixth National Forest Resources Survey

According to the functional categorisation of forests by SFA, China has timber stands of 78.6 million hectares (48.0%), protection forests of 54.7 million hectares (33.3%), economic forests of 21.4 million hectares (13.0%), firewood forests of 3.0 million hectares (1.8%) and forests for special uses of 6.4 million hectares (3.9%).

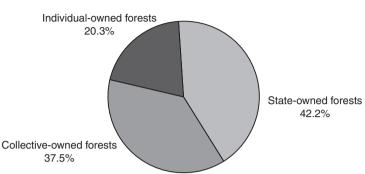
## Functional categorisation of China's forests by SFA



Source: The SFA's Report on Basic Facts of China's Forestry 2005

For the tree species distribution, according to the SFA's Major Results of the Sixth National Forest Resources Survey, oak trees, masson pine, fir, birch and larch represent a large proportion in both area and forest stock of China's forests. The gross area of these trees is 71.3 million hectares (49.9% of total forest area) and their forest stock amounts to 4.5 billion m<sup>3</sup> (37.1% of total forest stock).

In terms of ownership distribution, China has state-owned forests of approximately 72.9 million hectares (42.2%), collective-owned forests of 64.8 million hectares (37.5%) and individual-owned forests of 35.1 million hectares (20.3%).



#### **Ownership distribution of China's forests**

Source: SFA's Report on Basic Facts of China's Forestry 2005

# Changes of forest area

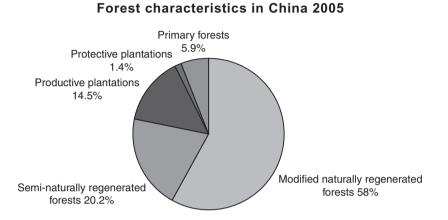
According to the FAO's Global Forest Resources Assessment 2005, due to China's largescale afforestation, China's forest area increased from 157 million hectares in 1990 to 197 million hectares in 2005. The net gain was 4 million hectares per year during the period 2000-2005 and the annual change rate was 2.2%. The table below compares the changes of forest area in China and the world.

# Comparison of changes of forest area in China and the world

	Forest area (1000 hectares)			Annual change rate			
	1990	2000	2005	1990-2000		2000-2005	
				1000 hectares	%	1000 hectares	%
China	157,141	177,001	197,290	1,986	1.2%	4,058	2.2%
World	4,077,291	3,988,610	3,952,025	-8,868	-0.2%	-7,317	-0.2%

## **Forest characteristics**

According to the FAO's Global Forest Resources Assessment 2005, about 58% of the forest in China is modified naturally regenerated forest covering 114.3 million hectares. The semi-naturally regenerated forest has 40 million hectares accounting for 20.2% of total forest area. The forest plantations covers 15.9% of total forest area which are further divided into productive plantation (28.5 million hectares, 14.5%) and protective plantation (2.8 million hectares, 1.4%) and primary forest, which has 11.6 million hectares covering 5.9% of total forest area.



Source: FAO's Global Forest Resources Assessment 2005

The forest plantations in China were increasing. Its area increased from 18.5 million hectares in 1990 to 31.4 million hectares in 2005 and in terms of percentage of total forest area, from 11.8% to 15.9%. The annual gain was 1.5 million hectares per year during 2000-2005.

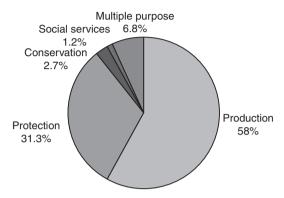
# Change in extent of forest plantations in China 1990-2005

199	Area of forest plantations19902000			2005		Annual change rate (per year)	
1000 hectares	% of total forest area	1000 hectares	% of total forest area	1000 hectares	% of total forest area	1990-2000 (1000 hectares)	2000-2005 (1000 hectares)
18,466	11.8%	23,924	13.5%	31,369	15.9%	545.8	1,489

#### **Designated functions of forests**

According to the FAO's Global Forest Resources Assessment 2005, in terms of primary functions of forest in China, more than half of the forest is designated for production (58%) and about a third for protection (31.3%). The other designated functions are conservation (2.7%), social services (1.2%) and multiple purpose (6.8%).

# **Designated functions of forests in China 2005**



Source: FAO's Global Forest Resources Assessment 2005

#### **Commercial growing stock**

According to the FAO's Global Forest Resources Assessment 2005, China's forest has approximately 12,168.1 million m<sup>3</sup> of commercial growing stock, accounting for 91.8% of total forest growing stock in China.

#### TIMBER MARKET IN CHINA

Some of the information set out below is sourced from an independent technical report prepared by CFK. We have commissioned CFK, our technical consultant and an Independent Third Party, to prepare an independent report on our forestry operations, which is reproduced in Appendix V to this prospectus. CFK is a consulting firm focusing on the forestry industry. We have also engaged CFK to prepare valuation reports for our forestry assets in compliance with IAS 41. The amount of fees payable to CFK in relation to these engagements, which is US\$673,000 in total, is not contingent on our approval for its work. Investors should note the scope of work, report qualifications and assumptions of CFK's independent technical report which are set out in the introductory section of the report at pages V-1 to V-3.

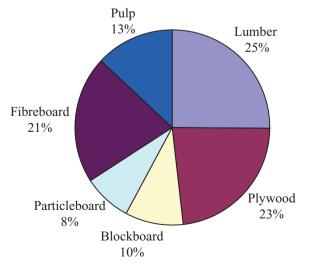
The qualifications and assumptions in CFK's independent technical report include the following:

- CFK has undertaken limited visual inspection of the forests on various occasions in 2008 and during March and August 2009.
- CFK made some limited measurements of the forest volumes, but was not able to independently verify the forest area description.
- CFK undertook site inspections which can only provide an indicative subjective assessment of the quality of the forest resource and the likely wood flows. CFK assumes that the sites visited were broadly representative of the forest estate as a whole.

- CFK did not undertake a full scale review of the existence of any hazardous substances or other adverse environmental conditions that may or may not be present in the Group's forest.
- CFK is not expert in and expresses no opinion on legal or accounting matters assumed for the purposes of its report.
- CFK has relied on the accuracy and completeness of the forest inventory, operating costs and other data supplied by us.
- CFK has reviewed the information supplied by us and believe that it is consistent with the information and knowledge that it has on our forests.
- While CFK has compared the key information provided by us with its own research, the accuracy of the results and conclusions of the report are reliant on the accuracy of the information provided by us.
- The actual wood flows, production volumes, and conditions of our forests may differ from that set forth in CFK's independent technical report. The degree of uncertainty increases with each year presented. If actual wood flows, production volume and forest conditions are less favourable than those shown or if the assumptions used in formulating the projections prove to be incorrect, our business and results of operations may differ from the projections.

#### Overview

Firewood is the dominant use for wood in China accounting for an estimated 58% of the total wood removals. The balance can be considered industrial wood. There are two basic categories of industrial wood. The first category consists of posts, poles and unprocessed wood used in construction and for rural wood use (excluding firewood). Most of this category of industrial wood does not enter the industrial supply chain as it is often acquired, processed and used by individuals and not re-sold or marketed through traditional channels. The second category of industrial wood refers to wood that is utilised in the manufacture of processed products (e.g. plywood, lumber, pulp and paper). The chart below shows the second category of industrial wood consumption in China in 2008.



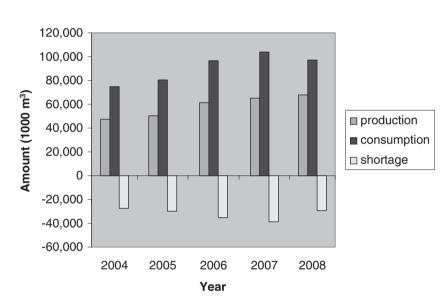
#### Chinese Industrial Log Demand By Sector (2008)

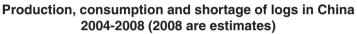
Source: SFA, CFK

The largest industrial wood consuming sector is "Other" which accounts for about 26% of the industrial lumber consumption. This sector includes posts and poles, unprocessed wood for construction, and rural wood consumption (excluding firewood). Most of this wood does not enter the industrial wood supply chain as it is often acquired, processed and used by individuals and not resold or marketed through traditional channels. Excluding "Other" from the analysis, panel production accounts for almost 62% of the industrial wood consumption in China.

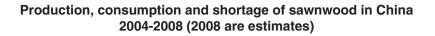
# Production and consumption of primary timber products in China

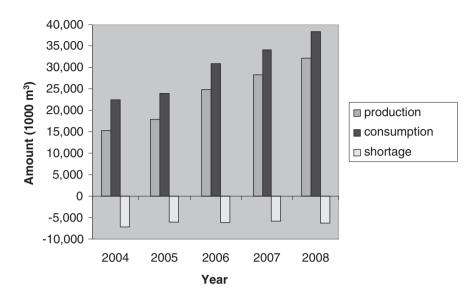
Based on the ITTO 2008 Report, it is forecast that China will have a shortage (namely the excess of its domestic consumption over its production) of 29.5 million m<sup>3</sup> logs and 6.2 million m<sup>3</sup> sawnwood in 2008. Compared with the shortage figure in 2004 which is 27.6 million m<sup>3</sup>, the shortage of logs in 2008 has increased by about 6.9%. The tables below show the shortage of logs and sawnwood in China.





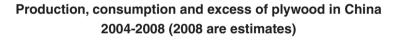
Source: ITTO 2008 Report

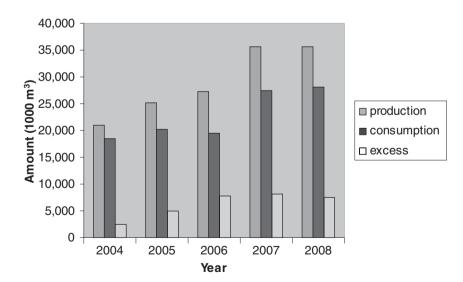




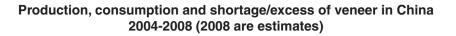
Source: ITTO 2008 Report

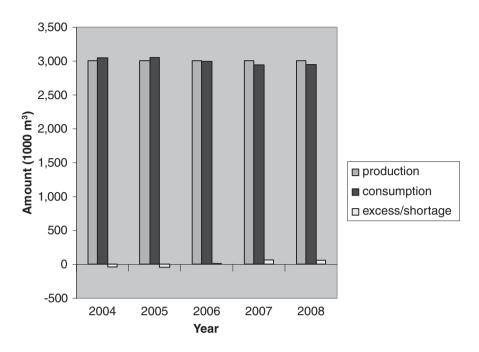
As for plywood and veneer, based on the ITTO 2008 Report, China's production of plywood and veneer for 2008 is forecast to exceed consumption by 7.5 million  $m^3$  and 55,000  $m^3$ , respectively.





Source: ITTO 2008 Report





Source: ITTO 2008 Report

## Imports and exports of timber products in China in the first quarter of 2009

The following information about imports and exports of timber products in China for the first quarter of 2009 is extracted from the ITTO's Tropical Timber Market Report (Volume 14 Number 9, 1-15 May 2009).

Affected by the global economic crisis, China's foreign trade in major forest products fell considerably in the first quarter of 2009. This was mainly due to shrinking markets of developed economies such as Europe, the US and Japan, which are the main export markets of China. The statistics from China Customs have shown China's total import and export trade value of major forest products to have declined for two successive quarters to only US\$11.8 billion in the first quarter of 2009, down 18.9% from the same period of last year. Of the total, the country's import value was US\$4.8 billion, down 27.8%, and the export value was US\$6.9 billion, down 11%. The favourable trade balance continued to climb, however, and reached US\$2.1 billion, up US\$968 million compared with US\$1.1 billion in the same period of last year.

#### Imports

# (1) Logs

A total of 5.6 million m<sup>3</sup> of logs were imported by China in the first quarter of 2009 valued at about US\$793.9 million, down 34% by volume and 43% by value from the same period last year. Of the total, softwood imports were 3.877 million m<sup>3</sup> valued at US\$433.4 million, accounting for 69.2% and 54.6% of the total, respectively. Hardwood imports were 1.7 million m<sup>3</sup> valued at US\$360.5 million, amounting to 30.8% and 45.4% of the total, respectively. During the same

period, tropical log imports increased by 32.6% to reach 1.4 million m<sup>3</sup>, making up 24.5% of the total imports.

The top five suppliers of logs to China were: Russia (3.3 million m<sup>3</sup>, accounting for 59.7% of the total); New Zealand (531,500 m<sup>3</sup>, 9.5%); Papua New Guinea (380,900 m<sup>3</sup>, 6.8%); Solomon Islands (333,000 m<sup>3</sup>, 5.9%); and Gabon (236,600 m<sup>3</sup>, 4.2%). Russia was still the largest supplier, but its export volume declined 43% and its share of total imports from China dropped by 9.4 percentage points from the same period last year.

## (2) Sawnwood

A total of 1.536 million m<sup>3</sup> of sawnwood was imported in the first quarter of 2009 and valued at US\$373.4 million, up 0.6% by volume and down 12.8% by value, respectively, from the same period of last year. The major suppliers of sawnwood to China were Russia (529,600 m<sup>3</sup>, amounted to 34.5% of total); Canada (319,300 m<sup>3</sup>, 20.8%); the US (142,900 m<sup>3</sup>, 9.3%); Thailand (137,100 m<sup>3</sup>, 8.9%); and New Zealand (56,400 m<sup>3</sup>, 3.7%). The sawnwood imports from these five countries reached 1.1853 million m<sup>3</sup>, amounting to 77% of total sawnwood imports in China.

## (3) Wood-based panels

The imports of wood-based panels continued to decline in the first quarter of 2009. Of the total, plywood imports were 33,400 m<sup>3</sup>, valued at US\$19.33 million, down 57% by volume and 56% by value from the same period of last year. The import volume and value of fiberboard was 57,000 tons and US\$23.80 million, respectively, down 32% by volume and 32% by value. The import volume and value of particleboard was 49,700 tons and US\$16.15 million respectively, declining 23% by volume and 34% by value. Veneer imports were 10,500 tons valued at US\$13 million, down 44% by volume and 47% by value from the same period last year.

#### (4) Wood pulp and waste paper

Imports of both pulp and paper continued to increase during this period. However, import values fell considerably. Wood pulp imports reached 3.1 million tons valued at US\$1.5 billion, up 27% by volume and down 15% by value from the same period last year. Waste paper imports were 5.93 million tons valued at US\$658.3 million, up 0.3% by volume and down 49.7% by value.

#### (5) Paper board and paper products

A total of 674,400 tons of paperboard and paper products was imported, valued at US\$748.7 million, down 24% by volume and 25% by value, respectively, from the same period last year.

#### (6) Wooden furniture

Import of wooden furniture both by volume and value fell during the first quarter of 2009. A total of 790,900 pieces of wooden furniture was imported and valued at US\$69.2 million, down 7% by volume and 1% by value from the same period last year.

# (7) Wood chips

A total of 217,200 tons of wood chips were imported valued at US\$28.2 million, down 27% in volume and 39% in value from the same period last year.

# Exports

#### (1) Wooden furniture

A total of 52.60 million pieces of wooden furniture (including wood frame seats, bedroom furniture, office furniture, kitchen furniture and other wooden furniture) were exported valued at US\$2.3 billion, down 4.7% by volume and 2% by value from the same period last year. Wooden furniture is an extremely important component of China's forest products exports, accounting for one-third of the total export value of forest products in the country.

## (2) Paperboard and paper products

A total of 1.16 million tons of paperboard and paper products were exported and valued at US\$1.44 billion, down 31% in volume and 16.8% in value from the same period of last year. Accounting for 21% of total export value of forest products in China, paperboard and paper products remain the second largest exported forest product.

## (3) Other wood products

A total of US\$649.2 million of other wood products (including wooden doors and windows, flooring, wooden handicrafts and wooden packages) were exported in the first quarter of 2009, down 11% from the same period last year.

# (4) Plywood

Plywood exports continued to decline dramatically in the first quarter of 2009 to 959,600 m<sup>3</sup> (US\$462.2 million), down 41% by volume and 38% by value from the same period of last year.

#### (5) Fiberboard and particleboard

Exports of both fiberboard and particleboard continued to decline markedly in the first quarter of 2009. Fiberboard exports were 219,900 tons (US\$138 million), down 56% and 46% from the same period last year. During the same period particleboard exports were 17,400 tons (US\$7.8 million), down 41% by volume and 17% by value from the same period last year.

#### (6) Sawnwood

In the first quarter of 2009 sawnwood exports continued to drop and amounted to 134,500 m<sup>3</sup> (US\$85.4 million), down 17% in volume and 4% in value from the same period of last year.

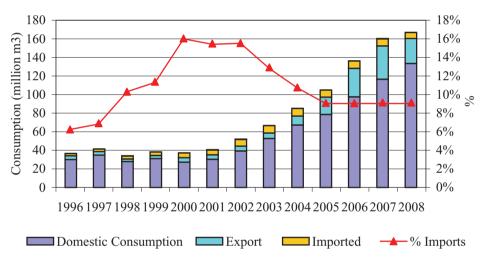
# PROSPECTS OF TIMBER INDUSTRY IN CHINA

The future prospects of timber industry in China will be determined by, among other things:

- log demand;
- log supply; and
- log prices.

# Log demand

Wood consumption in China has increased steadily since 2000. The chart below shows the consumption of wood products during the period 1996 - 2008.



## Chinese wood consumption 1996 - 2008

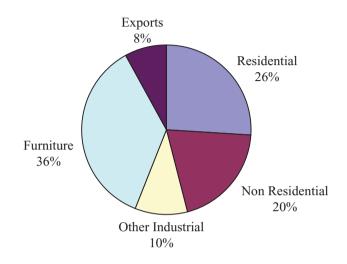
#### Note:

For the above chart, domestic consumption refers to logs consumed in China, and exports and imports refer to log and primary processed products (for example, lumber) but not total wood exports including finished products.

Source: Extracted from CFK Independent Technical Report

# (1) Solid wood

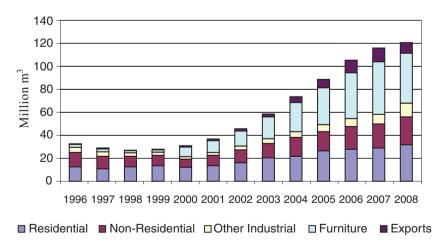
In 2007, solid wood products were primarily utilised in the furniture industry, followed closely by residential and commercial construction.



# Solid wood consumption by end use segment 2008

Source: Extracted from CFK's Independent Technical Report

The level of wood consumption in China reflects strong growth in furniture production (and exports of finished products), and in residential and commercial construction. As construction and furniture manufacturing increased, so did the consumption of solid wood products.



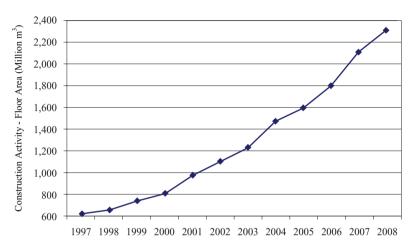
Consumption of lumber plywood and blockboard 1996-2008

The manufacture of wood products for export played only a minor role in the increasing consumption.

Source: Extracted from CFK's Independent Technical Report

# (2) Construction

The level of construction activity has increased significantly in the past decade with the floor area under construction increasing by about 14% per annum over the period 1997–2008, and has been increasing at the rate of 16% per year since 2001.

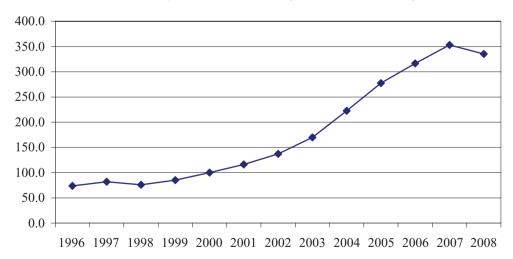


Construction activity in China — completed floor area 1997-2008

Source: Extracted from CFK's Independent Technical Report

## (3) Furniture

The furniture industry has undergone dramatic growth over the last ten years.



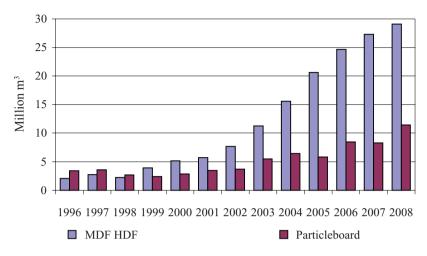
# Furniture production index (index 100 in 2000)

Source: Extracted from CFK's Independent Technical Report

#### (4) Reconstituted panels

The production of MDF, HDF and particleboard in China, like the production of most forest products, has undergone rapid expansion. The production of MDF and HDF in the

period between 1996 and 2007 expanded at the rate of 27% per annum, while particleboard expanded at a more modest rate of 9% per annum.

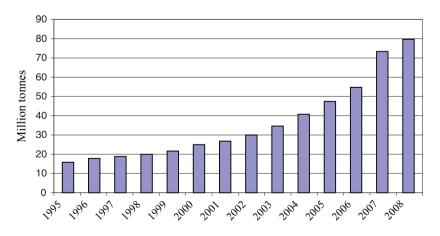




Source: Extracted from CFK's Independent Technical Report

#### (5) Paper and paperboard

The production of pulp and paper board in China has increased by an average of 13% per annum during the period from 1995 to 2008. China is now the second largest producer of paper in the world behind only the United States. During the decade ending 2004, the increase in paper production in China was greater than that of the next ten top producers combined. It is expected that this increase in production will continue for another decade and will drive demand for raw pulp and imports of kraft pulp.



# Production of paper and paperboard 1995-2008

Source: RISI, China Paper Online

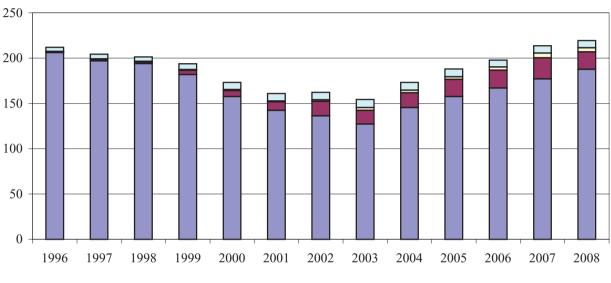
#### Log supply

Under the PRC Forest Law, the PRC strictly implements a quota system for the logging of forest wood. The forestry bureaus at the provincial level are responsible for compiling annual

logging quotas. The annual quota is reviewed by the local government at the same level and is submitted to the PRC State Council for approval.

Domestic log supply in China is ultimately determined by the planted area and standing volume of resources inside China. Any increase in planted area and standing volume are ultimately going to affect the allowable cut calculations.

The diagram below shows the available industrial roundwood in China from 1996 until 2008.



# Supply of industrial roundwood in China

■ Dometic Log Supply ■ Conifer Imports ■ Non Conifer Imports (Other) ■ Non Conifer Imports (tropical)

Source: Extracted from CFK's Independent Technical Report

According to CFK, it is unlikely that China's domestic log production will be able to increase fast enough to keep pace with the increasing demand. The pattern of the last few years is likely to continue with a gradual increase in domestic supply and a more rapid increase in log imports.

# Log prices

According to CFK, the key drivers of log price are the followings:

- Domestic supply is likely to be steady with some small increases. It is considered by industry commentators that domestic log production alone will not be enough to meet demand. As a result, there is an upward pressure on log prices.
- Domestic demand is likely to be supported by strong growth in construction. This will impose an upward pressure on log prices particularly for those regions with a strong domestic focus.
- Production costs are likely to increase, particularly transport costs, in response to increasing fuel costs and demand. This will have a negative impact on forest gate

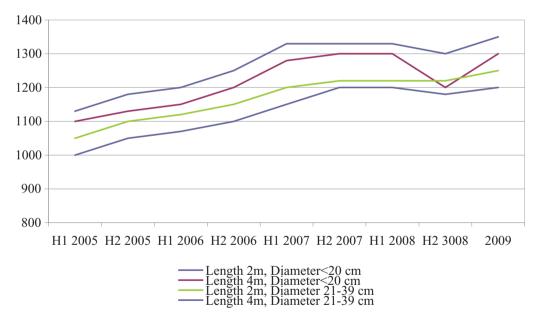
returns as not all of the increases in transport costs can be passed on to the customer.

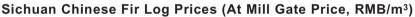
- Imported log prices are likely to increase as a result of the Russian log export tax on softwood logs as well as increasing production cots from Russia. Other exporters to China will face higher shipping costs. The increased imported log prices particularly from Russia will place a floor under domestic log prices.
- Increasing competition among wood processors will place pressure on their overall returns. The reduced profit margins will reduce ability to pay for logs and place downward pressure on log prices.

CFK believes that, on balance, while the price increases of the last few years may not be maintained, log prices should remain constant in real terms, with some potential for a modest upside.

## (1) Domestic log prices

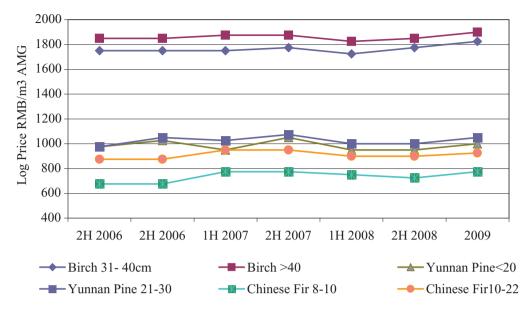
In Sichuan Province, log prices have increased by an average of 9% per annum. The chart below shows the changes in Sichuan Chinese fir log prices by log length and diameter. There is a small price differential for log length and diameter.





Source: Extracted from CFK's Independent Technical Report

In Yunnan Province, log prices have been more stable than those in Sichuan. The figure below provides a comparison of prices for birch, Yunnan pine and Chinese fir for 4 m logs between 31 cm and 40 cm in diameter. In Yunnan most of the Chinese firs sold are between 8 cm and 20 cm in diameter.



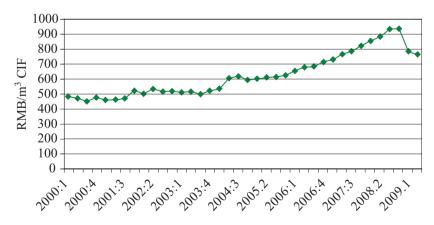
Yunnan Log Prices (At Forest Gate Price, RMB/m<sup>3</sup>)

Source: Extracted from CFK's Independent Technical Report

## (2) Imported log prices

China is likely to rely on imports of forest products in the foreseeable future. Imports of logs and primary processed forest products are likely to come under increasing cost pressure due to distance and increasing costs of production in the main exporting regions.

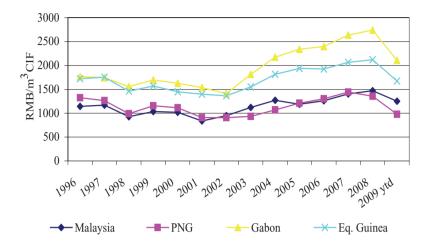
The diagram below shows the upward movement in China's softwood (Russian Larch) import log prices for the period between 2000 and the first quarter of 2009.



China's softwood (Russian larch) import log prices 2000 - 2009 Q2

Source: Extracted from CFK's Independent Technical Report

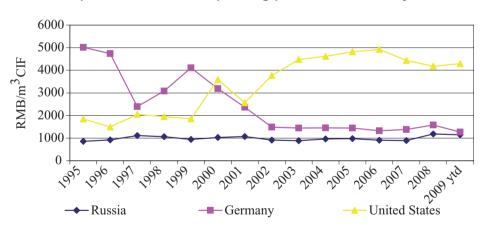
The diagram below shows the upward movement in China's tropical hardwood import log prices for the period 1996-2009 (year to date).



China's tropical hardwood import log prices 1996 - 2009 year to date

Source: Extracted from CFK's Independent Technical Report

The diagram below shows the movement in China's temperate hardwood import log prices for the period 1995-2009 (year to date).





\* Forecast Figure

Source: Extracted from CFK's Independent Technical Report

# IMPACT OF THE GLOBAL FINANCIAL SITUATION ON CHINA'S FOREST MARKET OUTLOOK

This review was prepared by CFK in mid-November 2008 before the extent of the impact of the financial situation on the outlook for the forest products industry has been quantified. This is due to the lag that exists before the impact is felt on log prices and demand. Some of the practical effects have already been accommodated into existing demand and price levels.

For example, the US housing industry has been in a downturn for the whole of 2008 and this has already impacted demand for timber and furniture products. The financial issues that have occurred during the last quarter of 2008 have not deepened the downturn, but more likely delayed the recovery. Log prices are often negotiated on a quarterly (or sometimes annual) basis. There has been a drop in prices of logs imported into China during 2009.

Year-to-date statistics of forest products for China, as with many other countries, lag considerably behind actual events. The-year-to-date figures for China are also compounded by the "Olympic Games effect" particularly for the construction sector.

CFK has identified the following key market drivers:

## Demand:

- Residential Construction
- Non-Residential Construction
- Furniture Production
- Industrial Production

#### Supply:

- Domestic
- International

Considering the impact of the financial situation on each of these drivers, it is possible to arrive at some overall conclusions as to the future supply and demand outlook in China.

#### Demand

#### Residential Construction

The impact of the financial situation on China's residential construction is likely to be the following:

- While retaining the policy of increasing the average living space from 20 m<sup>2</sup> to 30 m<sup>2</sup> by 2050 has not been announced, it is possible that this process will accelerate as part of the Chinese government's package to stimulate the domestic economy.
- Increasing urbanisation in China is likely to continue, but at a slower rate than has been the case, at least in the short term.
- The rate of increase in per capita GDP of China is likely to fall. The latest Consensus Forecast (*Note*) (November 2009) expects China's GDP growth to fall

8% in 2009, down from 9.0% in 2008 and an estimated 11.8% in 2007. Their medium term forecast (10 year plus) remains relatively unchanged. This is still significantly higher than other economies. The decline is likely to have a relatively modest impact on timber consumption inside China.

- Note: Consensus Forecast are a United Kingdom-based agency that provides consensus forecasts (mean) of key economic parameters provided by a number of economic forecasters. The consensus forecasts are obtained as the mean of the forecasts provided by a number of economic forecasters. The consensus forecasts for China are a consensus of the views of a number of forecasters, including some global investment banks.
- The 2008 Sichuan Earthquake is likely to lead to a short-term increase in wood consumption in the affected areas due to the reconstruction work required.

In conclusion, it is expected that the level of residential construction in China is likely to be relatively unaffected, due to the stimulus packages being prepared by the Chinese government, and in the case of the Group's forests, the reconstruction work following the Sichuan Earthquake in May 2008.

## Non-Residential Construction

The impact of the financial situation on China's non-residential construction is likely to be the following:

- Non-residential construction in China is closely linked with the increase in China's GDP, which is likely to slow.
- Non-residential construction in China should receive a boost as part of the Chinese government stimulus package.

In conclusion, non-residential construction in China is likely to remain at current levels, although in the short term, the mix may change from office construction to infrastructure projects.

#### Furniture Production

The impact of the financial situation on China's furniture production is likely to be the following:

- China's furniture production is likely to have a short-term decline due to reduced demand from the United States and Europe. The decline in wooden furniture exports continued throughout 2008 and into 2009.
- China's exports is not expected to start to increase significantly until the second half of 2010.
- Reduction in China's GDP growth will slow down the domestic demand.

In conclusion, furniture production in China has already contracted. While there is likely to be more contraction, the worst is over. However, the expected 2009 increase in China's exports is unlikely to occur until 2010.

## Industrial Production

The impact of the financial situation on China's industrial production is likely to be the following:

- Industrial production in China is closely aligned with China's GDP growth, which will slow down.
- China's industrial production is likely to receive a boost from the Chinese government's stimulus package.
- China's exports and demand for packaging is likely to reduce in the short term.

In conclusion, industrial production in China is likely to receive a short-term boost from the Chinese government's stimulus package, but will be impacted by the decline in exports, and the overall demand is likely to be slower in the short term. Overall timber demand in the medium term is likely to remain unchanged from previous estimates.

## Supply

## Domestic Supply

In the short term, China's domestic log supply will be unaffected by the financial situation. The impact is likely to be felt in the medium to long term due to:

- a reduction in the establishment of fast growing plantation due to funding constraints; and
- a slow-down of the consolidation of existing forest assets due to funding constraints.

In summary, the financial situation may well have an impact on the medium-term domestic log supply in China, but is unlikely to have a significant impact in the short term.

#### International Supply

China's softwood log imports during 2008 were significantly below their 2007 levels, and are now at similar levels to their 2006 figures. Export levels have continued to fall during the first half of 2009. Nearly all this decline has been in imports from Russia. This is a reflection of the higher cost of importing logs from Russia due to, in a large part, the Russian log export tax regime. The impact of the financial situation on the key international supply side drivers is the following:

- Shipping costs have reduced, making imports from Australasia and Africa less expensive.
- The last tranche of the Russian export tax has been delayed, but the financial situation makes it less likely that the infrastructural issues will be addressed.

• Continued slowdown in the United States will result in log exports from the United States and Canada remaining at current levels (it could decline further if pulp mills close and there is no pulp wood market).

In conclusion, China's log exports have the potential to remain at current levels and with a decline in shipping costs, may be less expensive. The impact could be felt in the medium term where the levels of Russian log exports are expected to decline, unless there is significant infrastructural investment in the Russian Far East, as the harvest moves into previously undeveloped areas.

# Conclusion

Supply in China in the short term (2009-2010) is likely to exceed demand and this, coupled with reduced demand and falling prices of imported logs, will place pressure on domestic log prices during this period.

One unknown factor is the role that the Chinese government may play in limiting log imports. On previous occasions (for example, during the Asian financial crisis of 1997) the Chinese government has acted to limit log imports, thereby preserving foreign exchange reserves. If they do this, then log imports are likely to fall, with the balance being met by domestic suppliers, and thus the pressure on log prices is unlikely to be as great as if log imports are able to continue unconstrained.

## **GOVERNING BODY OF FORESTRY IN CHINA**

In China, the SFA is the state bureau in charge of the national forestry industry. Its principal functions include the formulation of policies and regulations for national forestry industry, forest management and forestry resources protection and the supervision of their implementation.