



The Changing Landscape of China's Domestic Forestry Sector *Do Growing Supply-Demand Imbalances Set the Stage for Institutional Investment Opportunities?*

By David Skilton

New Forests' David Skilton has traveled extensively to China over the past decade, undertaking valuations of forestry assets, reviewing investment opportunities and meeting with industry sector players. In this article David reflects on the policy pressures on China to expand domestic wood supply by attracting private investment in commercial timber plantations.

The Chinese forest sector is in the midst of a remarkable transformation. The last ten years have witnessed a dramatic increase in demand by China for wood products. This has been fueled by both export growth and increased domestic demand. Over the same period environmental concerns have resulted in significant constraints being placed on timber production from China's natural forests, while changes in land tenure and use rights have paved the way for increased private ownership and investment in plantation forestry.

The Chinese government initiated forestry sector reform in 2000, introducing a series of policies to encourage industry development. The government recently issued its latest Forestry Industry Development Plan (2010-2012) with four main objectives: to assist the leading 100 key state level forestry enterprises; to support policies that encourage leading enterprises to raise debt finance; to further subsidise seedlings required for plantations; and to reduce charges for the forest maintenance fund. Additionally, the Development Plan aims to maintain the growth rate of forestry's output value at 12% per annum and raise the output value of the forestry industry from RMB1.44 trillion in 2008 to RMB2.26 trillion by 2012.¹

Despite conflicting data, commentators are in broad agreement regarding China's wood fibre supply deficit. Even allowing for the already considerable and ongoing investment in plantation forests and significant investment in the protection of its forests, China continues to face challenges in meeting its demand for wood fibre and forest products. The shortfall in wood supply and increasing timber imports are unlikely to be addressed by domestic timber supply in the short to medium term, particularly given that timber demand is rising in line with the very high rates of GDP growth. This outlook appears to be shared by the State Forest Administration (SFA). While the SFA optimistically expects domestic timber supply to reach 300 million m³/annum in 2020 from 180 million m³/annum today, it also anticipates that industrial demand (not

¹ http://info.e-to-china.com/investment_guide/63479.html, Accessed 20 July 2010

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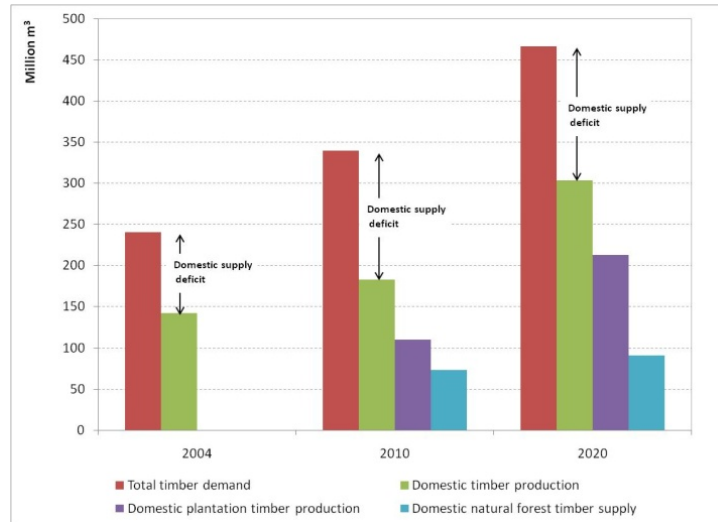
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including private use or fuel wood) will increase to 467 million m³/annum (excluding recovered paper), leaving a deficit of 167 million m³/annum (Figure 1).²

Figure 1 – SFA’s Outlook for Supply Demand Balance (2004-2020)



The current and projected wood fibre supply/demand imbalance makes plantation investment in China an opportunity worth exploring. Despite encouraging government policies, there are still only a dozen or so private forestry investment companies operating in the Chinese market. Many of these have strong relationships with in-country counterparties, as their principals’ are Chinese or Hong Kong nationals. The low level of penetration by international forestry investors to date can be attributed to perceptions of operating risk and difficulties related to choosing the right domestic counterparties. The decentralised administrative system within the forestry sector makes it necessary to establish relationships with multiple partners and government entities in order to secure land, negotiate commercial terms and gain harvest quota and harvest permits.

China’s Forest Resources

According to the 7th National Forestry Inventory (2004 to 2008), the forest area of China is 195.5 million hectares, 20.4% of the country’s land area. The forest area has increased by 20.5 million hectares since the 6th National Forestry Inventory (1999-2003).³ China has the fifth largest forest area of any country in the world with natural forest covering 125 million hectares and plantations totaling 64.5 million hectares.⁴ However, China’s per capita forest area is only one quarter of the world average, and the percentage of land under forest cover is low too by international standards.

China has undertaken a set of policy initiatives aimed at expanding its forest cover, most notably the Industrial Base Development Program. This program promotes the establishment of fast-growing and high-yield timber (FGHY) plantations in selected regions by subsidizing plantation establishment with loan interest

² Zhang Kun, Lu Wenming, and Osamu Hashiramoto (2007) *Demand and Supply of Wood Products in China*, FAO

³ United Nations Economic Commission for Europe (2009) *Geneva Timber and Forest Discussion Paper 57*

⁴ FAO (2010) *Global Forest Resources Assessment 2010 - Country Report China*, FRA2010/042

subsidies, discounted loans from state banks and extended repayment periods.⁵ The program's goal is to plant 13.3 million hectares of fast growing plantations between 2001 and 2015, creating an estate that can supply 130 million m³/annum of timber for China's domestic market. Private companies are expected to play an important role in the operation of the program by leasing or sub-leasing state-owned and collectively owned land for plantation development.

Interventions such as these have helped increase China's plantation forest area from 46.7 million hectares to 64.5 million hectares over the period 2000 to 2010. However, designated production forest (timber forest) has decreased from 82.7 million to 65.5 million hectares over the same period, as significant areas of natural forest have been designated as protection forest. Owing to significant problems of desertification, landslides, soil erosion, sedimentation and water quality impacts associated with excessive past logging, there has been an increased emphasis on forest protection and environmental considerations. The area of protection forest has increased from 50.7 million ha (29% of forest land) to 91.5 million ha (44% of forest land) over the period whilst the total designated forest land base has increased from 177 million hectares to 207 million hectares.

There is also pressure on forest resources for non-timber uses. Policy initiatives such as the SFA's 2007 announcement to target the establishment of 13.3 million hectares of plantations to produce biofuels and biomass for energy production ensure competition for land. Four tree species are being promoted, including jatropha and yellowhorn. SFA and PetroChina are each offering subsidies for planting these species.⁶ While these trees reportedly "grow well" on marginal sites, the financial incentives may lead farmers to grow bio-energy crops instead of pulpwood/timber crops.

The Chinese Government has been investing heavily in new plantation projects over the past decade with the aim of increasing domestic roundwood production. While official targets may prove ambitious, the financial incentives being established should result in significant growth in China's domestic round wood supply over the next five to ten years. Nevertheless, land availability and competition from other land-uses will limit the extent to which China's domestic wood fibre supply can expand to keep pace and meet the country's demands. It should also be noted that some forestry experts who have reviewed past timber plantation programs in China have emphasized that technical standards and growth rates have been below expectations.

Domestic Fibre Supply

Reliable statistics on China's domestic wood supply are difficult to find and are often conflicting. The annual allowable cut (AAC) associated with the 11th Five-Year Plan (2006-2010) has recently been approved with significant changes related to the allocation of wood production between natural forest and plantation forests. Under the 11th Five-Year Plan, the allowable cut has increased by 25 million m³ to 240 million cubic metres or 11% compared to the last plan. To achieve this, the allowable cut from natural forests has been reduced by half while plantation forest harvesting has been more than doubled. While these commercial

⁵ Barr, C. and Cossalter, C. (2004) "China's development of a plantation-based wood pulp industry: government policies, financial incentives, and investment trends," *International Forestry Review* Vol. 6(3-4), December 2004

⁶ <http://www.pulpwoodconference.com/past-conferences/2008/conference2008/pdf/bobflynn.pdf>, Accessed 30 July 2010

volumes increased, the allocation to “non-commercial” uses such as farmers self-use and firewood decreased from the last plan.

Even with these changes, domestic supply of industrial round wood has failed to keep up with China’s growing demand. This can be seen in the rise in forest product imports. From 1999 to 2008, China’s forest product imports increased from US\$12.2 billion to US\$29.4 billion – 95 million m³ to 150 million m³ on a round wood equivalent basis (RWE) – to rank first among all nations for the value and volume of forest product imports.

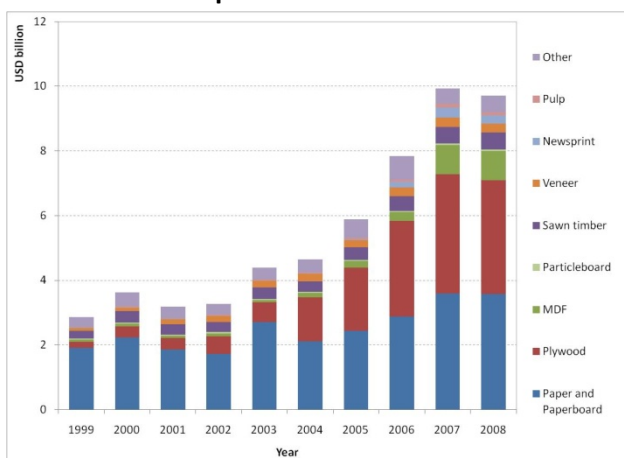
Demand for Wood Products

China’s GDP has growth at an annual rate of over 9% since 1992 and is now the world’s second largest economy behind the United States. This remarkable economic growth, along with success in reducing poverty and rapid urbanization, has stimulated a sharp increase in the domestic demand for forest products. Apparent demand for paper and paperboard grew by an average of 11% per annum between 2002 and 2008, and the country is now the world’s largest producer of paper and paperboard. China’s consumption⁷ of wood-based panels has risen considerably in the past 10 years in support of the rapid development of secondary processing, especially furniture manufacturing.

China is now a dominant player in the global forest products market. Between 1999 and 2008, the value of its forest product exports increased from US\$2.9 billion to US\$9.7 billion (Figure 2). The country now ranks seventh among all nations in terms of the total value of its forest products exports.

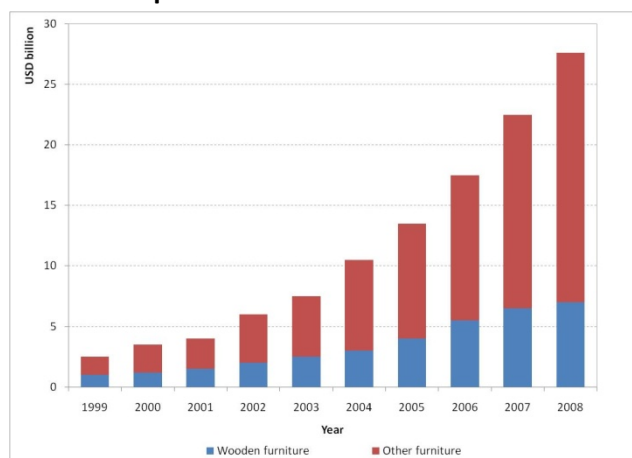
China has also become highly competitive in the global furniture market. In 1999 China exported US\$2.5 billion worth of furniture; by 2005 this had risen to US\$13.8 billion, surpassing Italy to become the largest supplier in the global furniture trade. The total value of China’s furniture exports was US\$27.6 billion in 2008, about one-quarter of which was wooden furniture. Exports of wooden furniture during the first eight months of 2009 totalled US\$4.5 billion (Figure 3).

Figure 2:
Forest Product Exports[†] – 1999 to 2008



[†] Excluding furniture exports

Figure 3:
Furniture Exports – 1999 to 2008



⁷ Apparent consumption = production *plus* imports *less* exports – based on FAO trade statistics

It can be anticipated that continued economic growth along with urbanisation, large government-led housing programmes, privatisation of housing and an export-oriented focus will all contribute to strong domestic demand for timber. A move to the manufacture and export of higher value products is likely to lead to further increases in demand for packaging materials.

Land Use Rights

As part of the transition from a centrally planned to a market driven economy, the Chinese government's reform of the forest sector seeks to encourage greater private sector participation. Part of this reform relates to land tenure and the mechanisms for forest asset transfers.

China's rural reform is based on the concept that land use rights can be separated from land ownership. Land use rights can be privately owned, while the land itself is owned by the state or collective. Land use rights confer to the holder the right of use, right of management, right of disposition and right of remuneration. Land use is specified. In general, prime farmland in lowland plain areas can only be used to plant crops; non-prime farmland can be used for cropping, fruit trees and commercial timber production; mountain areas can be planted with trees for both commercial and protection purposes.

The "PRC Forestry Law and Implementation Regulations" (29 January 2000) established a registration and licensing system for the following four types of rights relating to forestry:

1. Plantation Land Ownership – the right to own plantation land for use as commercial forestry plantation
2. Plantation Land Use Rights – the right to use and operate the plantation land as commercial forestry plantation (e.g. by leasing the land from the land owners)
3. Plantation Tree Ownership Rights – the right to own trees on a commercial forest plantation
4. Plantation Tree Use Rights – the right to use the produce of the trees

Under Chinese forestry law, it is not necessary for all rights to be held by a single entity as the plantation land use rights, plantation tree ownership and tree use rights are all transferable. The local government at the county level or above is responsible for registering such rights and issuing ownership and use certificates. Any change in the ownership or use rights must be registered with the local government. The provinces of southeastern China are considered the most advanced in implementing this new tenure system.

Forest tenure reform allows collective forest owners to reallocate their land-use rights to households or to keep them as a collective. Tenure reform has led to significant changes in the ownership structure of China's forests. There was a significant increase between the 6th (1998-2003) and 7th (2003-2008) National Forest Inventories in the area categorised in private ownership, rather than collective ownership. Ownership change has continued apace since the completion of the 7th National Forest Inventory. The FAO reports that by the beginning of 2008 some 44 million ha of collective forest (27.5% of the total) had been transferred to individual households with the transfer of use rights more or less complete in Fujian, Jiangxi, Liaoning and Zhejiang provinces and widespread in Yunnan, Anhui, Hebei and Hubei provinces. The FAO anticipates that nearly all provinces in China will undergo collective forest tenure reform by 2010.

Implications for Investors

China's growth relies on access to natural resources, and timber is one of the key primary materials for both domestic consumption and export industry development. As China continues its impressive economic growth, it will put more and more pressure on global timber supply and may face rising real prices for timber imports. A healthy and growing domestic timber supply from commercial plantations will be a critical piece of the future forestry sector development. As reform measures to allow private investment in plantations are implemented, there will be a growing opportunity for international investors to gain exposure to the domestic timber markets in China. This can be an attractive strategy because it provides direct Chinese market exposure and is not affected by the volatility of timber shipping costs and currency movements.

With China emerging as the driving force in the international timber market, New Forests has focused its investment strategies around providing exposure to this steadily growing opportunity. For further information on our investment programs please contact:

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