



Aquila Capital 

 **IWC** The International
Woodland Company
Global Forest Investment Advisor Since 1991

Real Asset Research

Why Asia's wood production deficit is driving the value of global timberland investments

May 2014

WHY ASIA'S WOOD PRODUCTION DEFICIT IS DRIVING THE VALUE OF GLOBAL TIMBERLAND INVESTMENT

MAY 2014

In this research paper, the International Woodland Company (IWC) analyses the effects of Asia's demand for wood on global forestry and what this means for investors. IWC is a partner of Aquila Capital for timberland investment. The Copenhagen-based company was founded in 1991 and manages assets worth around USD 2.9 billion (as of 31 December 2013).

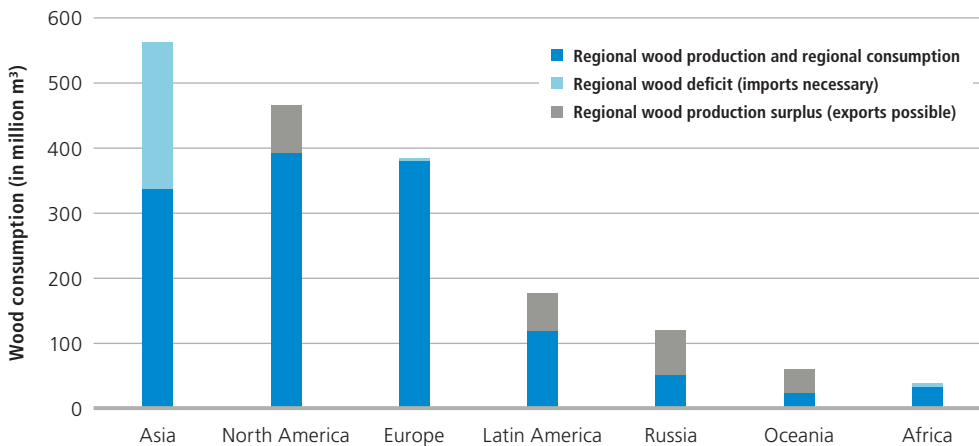
Aquila Capital has offered investors timberland investments since 2007. Its assets under management in this segment amount to around EUR 90 million, equating to approximately USD 124 million¹ (as of 31 December 2013).

In recent years, IWC has often stressed the importance of the Asian market for the global wood market, even though the company's advisory activities focus on timberland investments that are largely situated outside the region. This begs the question: Why should global investors care about Asia? This article looks to answer this question based on a simple example of supply and demand.

In 2011, Asia² consumed 562 million cubic metres of industrial roundwood³, with an estimated 338 million cubic metres supplied from domestic forests. This resulted in a staggering wood deficit of 224 million cubic metres, or 14 % of global industrial roundwood production. Figure 1 illustrates the magnitude of regional wood supply from regional forests, shown as wood production and consumption, with the resulting wood deficit or surplus.

Asia's wood deficit eats up the export surpluses of all other wood-producing regions

Figure 1: Wood production and consumption



Source: ForeSTAT, December 2013

¹ Exchange rate as of 31 December 2013: USD 1 = EUR 1.3766

² Asia includes countries at the border to Africa and Europe, Russia is not included

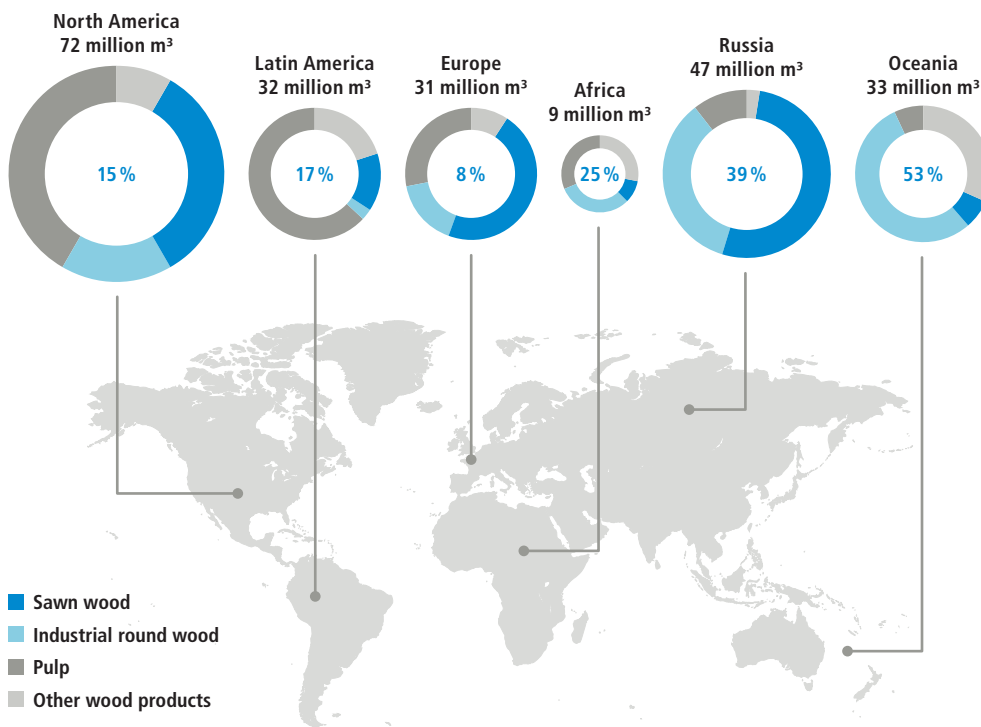
³ Round wood logs used to manufacture sawn wood, pulp and wood materials

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Asia has an obvious wood deficit ~~is~~, whereas other regions produce more than they consume. The majority of this surplus is exported to Asia to fill the regional gap. Figure 2 illustrates Asia's wood imports from a global perspective, based on the same regions shown in Figure 1.

Figure 2: Global wood exports to Asia (2011)



Source: ForeSTAT, December 2013

A comparison of the regions' respective wood production shows the extent of the share that is exported to Asia. At 53%, Oceania has by far the largest export ratio, but even North America exports a relatively high share of its wood to Asia, particularly pulp and sawn wood. Russia also dominates the sawn wood market in terms of exports to Asia, with New Zealand narrowly surpassing Russia in industrial round wood exports. Latin America also has a high export ratio, primarily supplying hardwood pulp for the Asian paper and tissue industries.

Going forward, we expect Asia's wood deficit to increase or at least remain at current levels over the next 10 to 15 years. IWC attributes this to (i) high consumption growth, (ii) limited options for increasing domestic wood supply and (iii) a lack of substitutes for certain imported forest products.

Asia's structural wood deficit will likely continue to rise in the next 10 to 15 years

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Asia's wood consumption has grown at a rapid 6.4% per year over the past 10 years. Even with a more moderate growth forecast of 2.2% per year⁴, wood consumption will grow by 190 million cubic metres by 2025. This is equivalent to 9 million hectares of high-yielding forest plantations or 1.4 times the current forest plantation area in Brazil.

Plantations in Asia have limited capacity to expand in size. Furthermore, dwindling domestic tropical resources will not make increased harvest levels possible. Increasing productivity at existing plantations is thus perhaps the most viable option. Yet opportunities for increasing supply in this manner are limited. Another factor affecting supply is the **lag time** of 15 to 25 years between planting and harvesting.

Traditional markets such as Russia, North America, Oceania, Europe and South America therefore will continue to be important for meeting Asia's sawn wood demand. Any supply constraints and subsequent price increases caused by growth in Asian demand and the recovery of US housing starts will probably increase wood production in these regions. Europe could scale up sawn wood exports to Asia as its supply base is anticipated to grow⁵ compared to consumption (construction in Europe is projected to be 5% below 2007 levels in 2025⁶). Exports from North America will likely decrease if domestic housing starts to return to normality, paving the way for increased exports to Asia from Russia, Oceania, South America and Europe. In addition, we will likely see continued demand for imported pulp from North and Latin America due to (i) high fibre scarcity and wood costs in Asia, (ii) low pulp prices due to anticipated global overcapacity (driven partly by declining pulp demand in mature markets) and (iii) an expanding, competitive pulp industry in Latin America.

For investors, there are different ways of gaining access to the attractive end markets in Asia. First, this can be achieved through timberland investments in the regions that export wood products to Asia. The advantage of this strategy is that it invests in several markets, thereby lowering country-related risks. Alternatively, timberland investments directly in Asia are, in most cases, associated with taking over the management of existing plantations. The attractiveness of these investments, apart from being located in proximity to growing end markets with a shortage of local wood supply, lies in the potential for improving the underlying management of Asian forest plantations. Ultimately, this can generate a higher return compared to timberland investments in mature markets.

The surplus regions in Europe, North America and South America are set to benefit from the market imbalance

⁴ This assumes an average annual growth rate ("CAGR") of 3.2%, 2.6% and 1.1% for pulp, wood-based panels and sawnwood respectively. Higher growth rates are expected for pulp and wood-based panel consumption as they are more closely related to household consumption, which accounts for a larger share of Asia's GDP growth. Sawn wood consumption is more cautiously estimated to follow projected adult population growth.

⁵ EFSOS II (2011). *The European Forest Sector Outlook Study II*.

⁶ Moeller, A. von (2013). *Overview of European sawn softwood market in 2013*. International Softwood Conference, Scotland, 18 October 2013.

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Please contact us if you have any questions:

Aquila Capital Investment GmbH
Valentinskamp 70
20355 Hamburg

Tel.: +49 40 87 5050-100
Fax: +49 40 87 5050-129
E-Mail: info@aquila-capital.de
Web: www.aquila-capital.de

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