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IWC NEWS

LEASING LAND IN A TIMBERLAND INVESTMENT PORTFOLIO

Owning timberland has become popular as an asset class due to its flexibility on entry/exit, as well as timing of harvests, which combined decrease the risks of negative returns and allow for higher upside potential compared to other investment alternatives without these characteristics.

As new investment opportunities spread into emerging markets, where real returns are targeted as high as 20 % [1], these investments will most likely be made on the basis of concession rights rather than traditional fee simple ownership. Timberland investors see the great potential in terms of growing conditions, land availability, favorable acquisition price and growing demand centres in the geographies of Asia and Africa. However, caution prevails as investors need more certainty that these investments will bare the same return yielding characteristics as their fee simple counterparts.

Overview of industrial plantation ownership
Given that intensively managed, productive industrial forest plantations are the most appropriate for forest investment; their global extent is of interest. Estimated at approximately 54.3 million hectares, the most significant regions are Asia comprising 17.7 million hectares, namely China, India and Indonesia; 12.8 million hectares in North America, exclusively the US, and; Latin America also with 12.8 million hectares, primarily in South-eastern Brazil and Chile [2]. Half of the world's industrial plantations are under public ownership, namely in the Asian countries listed above and also in Africa. Figure 1 shows a global overview of forest plantation ownership and highlights the most interesting regions for investors and some expected trends. As the investment space is maturing in North America, Oceania, and above mentioned regions of Latin America where the land is held under private ownership, plantation expansion will be modest. However the contrary is expected in Asia and Africa where ownership is through the government and leased out in long-term concessions. The 2012 KPMG timberland investor sentiment survey identified government involvement in the industry as the most significant variable to investor's risk profiles, with over 72 % of respondents claiming this. Thus, it is not surprising that investors are hesitant to enter into agreements for which the government has the ultimate control over the land base.

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[1] IWC News 37

[2] Indufor: The strategic review of the future of forest plantations 2012

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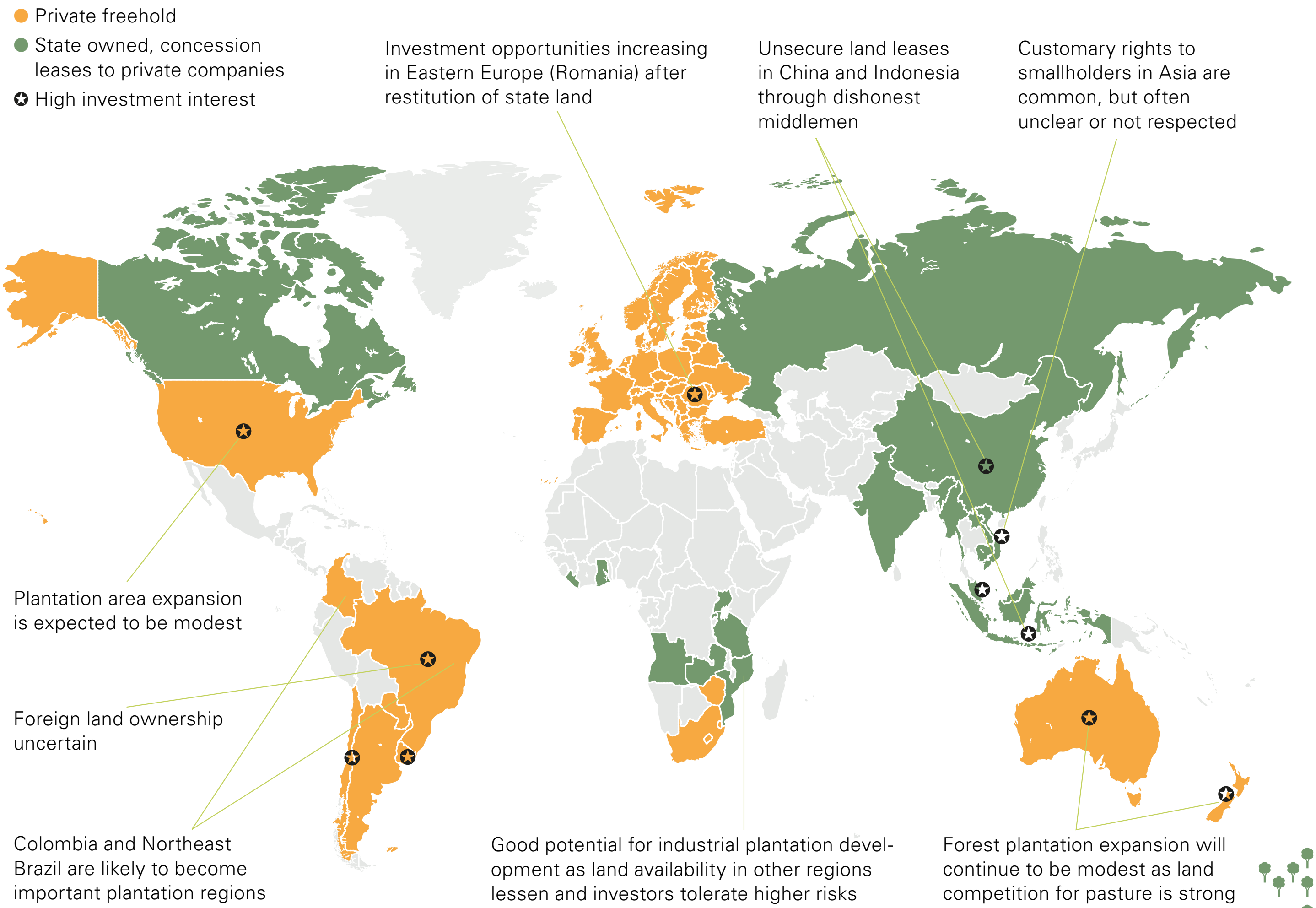
Table 1
Timbeland investment fundamentals and characteristics under owned and leased timberland

TIMBERLAND INVESTMENT FUNDAMENTALS	CHARACTERISTICS OF OWNED TIMBERLAND
CORRELATION	Historically low or negative correlation to other asset classes despite real estate component
RETURNS	Biological growth, Timber price changes, Land value changes
FLEXIBILITY	Utilize timberland market conditions to acquire or dispose of timberland properties Utilize timber market conditions to harvest when prices are attractive, or to wait when they are not, lending also to biological growth
RISKS	Country risk, Market risk, Management risk, Natural or biological risk, Social risk, Liquidity risk

Timberland investment fundamentals

Investors have come to know and trust the basic fundamentals of timberland investment (first column of Table 1), which are based on empirical data from the development of the asset class over the past 30 years. Thus, principles stem from the investment space in established geographies where factors, such as market maturity, political stability, and land price development are relatively homogenous. It is important to distinguish between the different features of leased land in a timberland investment (second column of Table 1), and to assess whether or not these differences, in light of the characteristics of emerging economies, impact the fundamentals for which timberland investment decisions are made.

Figure 1
Global ownership of industrial plantations (Adapted from Indufor, 2012)



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CHARACTERISTICS OF LEASED TIMBERLAND

Similar to owned land but depends on length of term (shorter term timber deeds that are tied closely to markets could have greater correlation to other asset classes).

In concession agreements, low acquisition prices mean that little capital is tied up in land, allowing investment funds to be focused on timberland improvement to maximize biological growth, and to develop frontier markets to achieve real price development. Furthermore, speculation on land prices is eliminated. Because of the short time frame associated with timber deeds, returns are highly dependent on timber prices, and thus more suitable in established markets.

Entry, exit and harvest flexibility under concessions depend on the level of bureaucracy within the government, and also the conditions of the agreement. For example, writing up a concession agreement may require many levels of approval and could take a year or more to complete. Likewise upon exit, transferring the concession to another holder may not be permissible, or could entail a lengthy process. In the same regard, plantation managers may not have the flexibility to ramp-up harvest when markets are good, if the concession agreement states a maximum allowable cut. Conversely, managers may be forced to harvest in down markets if a minimum cut level is set. Timber deeds have a very limited level of flexibility because of their short-term time frame, and very specific scope of timber rights.

Concession based investments carry significantly more country and social risk than in owned land, which may not be clear at the outset of investment. Poorly defined or enforced customary land rights, unexpected changes in land rent, stumpage prices or forest legislation, or land reclamation are risks that need to be assessed, especially in emerging markets. As timber deeds are agreed upon with a private land owner for a short period of time, market failure and biological risk, such as fire, would be more of a concern.

Basic types of forest tenure

Over simplified here, forest tenure structures vary immensely from country to country. The primary tenures of relevance to institutional investors take the form of free-hold owned timberland, concession rights from the government, or timber rights from a private owner. Although owned timberland is generally the most expensive to acquire, this structure provides the most flexibility, forms the basis of timberland investment fundamentals, and is what investors are familiar with. The concession tends to be the cheapest to acquire, as it is essentially renting land to grow trees and often implies extra costs associated with forest management (reforestation, environmental assessments, etc.). Timber deeds are defined here as an agreement with a private owner, where the term of the agreement is usually shorter than a concession, lasting only as long as it takes to harvest the mature trees. Normally these are granted without management responsibilities and are priced according to timber market prices.

In short, the impact of leased timberland on investment fundamentals varies. Ultimately, in order to profit from the growth potential in emerging markets, the political and social risks need to be well understood, the concession terms need to be aligned with the investment strategy, and the acquisition price needs to be low. Through a thorough due diligence process, and selecting a manager with experience in the region, these criteria can be met, and investors can be more confident with their decision to move into these uncharted waters.

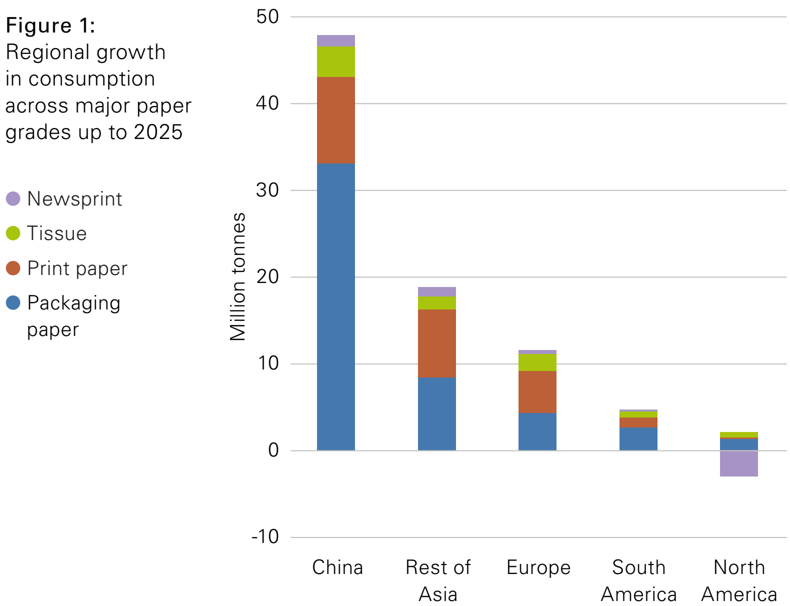
GLOBAL TRENDS IN PAPER CONSUMPTION

Given the important relationship between paper and wood demand [1], this article provides an overview of the major trends in global paper consumption and how to gain exposure to growing paper markets through timberland investments.

The article highlights that:

- Asia is driving virgin fiber demand.
- Growth of non-integrated paper production is set to increase market pulp production.
- Exposure to development in the pulp industry and alternative end-market opportunities are key to building a successful timberland investment portfolio.

Figure 1: Regional growth in consumption across major paper grades up to 2025



Each paper grade forecast is based on country level autoregressive integrated moving average models (ARIMA), including household consumption growth as an independent variable. Data poor observations were excluded and the final countries included in the analysis accounted for 93.3 % of the world's paper consumption in 2011 (FAOSTAT).

Based on IWC's internal analysis, Figure 1 shows the projected consumption increases for packaging paper, printing paper, tissue, and newsprint [2] in the largest wood consuming centers; China, rest of Asia, Europe, North America, and South America. Overall, paper consumption is projected to grow approximately 82 million tonnes by 2025, with China contributing to over half of this. North America's paper market is stagnating, while Europe is expected to experience some recovery.

Packaging paper is forecast to have the largest growth. For all regions combined, production is set to increase 50 million tonnes by 2025. China's consumption alone is estimated to increase 33 million tonnes and Asia on the whole by 41 million tonnes. This grade will not, however, be a major source of virgin fiber demand. Because aesthetics are a non-issue, processing is minimal and it is possible to utilize over 90 % of recycled paper in production.

Printing and tissue paper consumption is forecast to grow 23 and 9 million tonnes respectively by 2025. Not surprisingly, Asia is also responsible for the bulk of these increases (in particular printing paper). These grades will be the main driver of virgin fiber demand, as the costs of achieving the desired quality with virgin fiber is usually lower compared to recycled paper.

Newsprint is gradually diminishing in the Western world due to preferences for digital media. IWC expects a similar trend for Asia as the region's access to mobile phones and internet increases. On a global scale, newsprint consumption is projected to remain at current levels in 2025.

[1] In 2011, roughly 37 % of global industrial roundwood was used in paper production.

[2] Packaging paper: Paper or paperboard mainly used for wrapping and packaging purposes; Printing paper: Paper suitable for printing or other graphic purposes; Tissue: Paper used for hygienic purposes; Newsprint: Paper mainly used for printing newspapers.

Exposing timberland investments to growing paper markets

Two primary factors should be considered for positioning timberland investments with access to growing paper markets: (i) attractive future end-markets, and (ii) pulp and paper industry development.

Attractive end markets in paper have been described in the previous sections. For a timberland investor supplying virgin fiber, Asia's printing paper and tissue consumption are the most attractive demand centers, though tissue consumption in Europe and to a lesser extent, North America will also be important markets to be exposed to.

With regard to developments in the pulp and paper industry, paper is typically produced domestically. If paper production is integrated (pulp and paper is produced at the same site), a timberland investor is exposed directly to that paper market through supply of woodchips and pulpwood. In Asia, woodchip imports reached new record volumes in 2012, with China driving demand. It is primarily East Asian countries that have gained market shares in the woodchip market, whereas Australia, a traditional woodchip supplier for the region, has become less competitive due to a strong currency. If paper production is non-integrated (pulp and paper is not produced at the same site), exposure to the pulp market is more attractive and investments should be situated close to these facilities, as is the case for South and North America. Compared to woodchips, wood pulp is more appropriate for export due to its higher value per volume, making it less susceptible to fluctuations in transportation costs.

Asian paper production is mostly non-integrated due to scarce fiber availability that makes local pulp production more expensive than utilizing pulp produced from other regions. Going forward, the region's wood deficit is expected

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to continue, while plantation expansion is not projected to follow the same growth as wood demand. Consequently, the wood costs for producing pulp are expected to remain higher in Asia compared to other regions like North and South America. This suggests that access to the Asian paper market is best gained through exposure to competitive market pulp industries that supply the region's print paper and tissue producers [3].

Hardwood market pulp is the primary fiber source used for Asia and South America's paper production. Most of the hardwood market pulp will be produced from Eucalyptus due to its preferred characteristics for making soft tissue and printing paper. Hardwood market pulp is projected to increase approximately 15 million tonnes by 2025, of which 10 million will be consumed by China. This corresponds to an annual wood production of 65 million cubic metres, or to wood from 1.7 million hectares of high-yielding plantations [4]. Industry development will mainly take place in South America. Currently, an additional five confirmed large-scale hardwood market pulp production facilities are set to come online before 2016, with a total capacity of over seven million tonnes. Softwood market pulp on the other hand, is expected to experience minimal increases, with forecasted growth a mere 0.6 million tonnes by 2017 [5]. Asia's market pulp industry development is progressing slowly. Capacity increases are primarily integrated into current paper mills, while larger market pulp project announcements remain unconfirmed. South America's dominating role in producing hardwood market pulp is a result of highly developed technical know-how in pulp production, a long history of professional forestry, highest global tree growth yields, and land availability – which combined make South America a more favorable investment region compared to Asia, with regards to pulp.

Finally, it should be acknowledged that individual investments seldom target a single end-market. Indeed, exposure to a single market may increase risk. Sound investments typically seek exposure to several attractive end-markets.

[3] Pulp produced in one location and shipped to another for further processing.

[4] Conversion factor for hardwood market pulp (tonnes to cubic metres: 4.5) Source: Forest product conversion factors for the UNECE region. Geneva Timber and Forest Discussion Paper 49. High yielding plantations produce ~40 m³/ha/year.

[5] Pulp Watch, April 2013. Hawkins Wright

IWC WELCOMES A NEW EMPLOYEE

Dennis Lanther joined IWC as a Due Diligence Manager in March 2013. He brings 15 years of finance, portfolio management and investment experience, including manager selection to IWC. Working closely with the Investment Foresters and the Investment Committee, Dennis's main responsibilities include sourcing and assessing potential timberland fund investment opportunities for IWC's discretionary and non-discretionary mandates. Dennis holds an MSc in International Finance from the Aarhus School of Business in Denmark and the University of Otago in New Zealand and is a CFA charterholder. Prior to joining IWC, Dennis spent six years as a Portfolio Manager at FSP Pension (now AP Pension) responsible for investment strategy, asset allocation, and manager selection. Before that, he worked for Danske Bank, the largest bank in Denmark and one of the leading financial enterprises in northern Europe. Here he spent his first four years in investment banking, continuing into asset management for an additional five years.

"I believe that forest investing offers some very attractive attributes for institutional clients looking for socially responsible investments, attractive returns, and diversification in a low interest rate environment. IWC is a focused specialist with a strong track-record in a market with a low, but growing penetration. I believe IWC has a winning strategy."

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