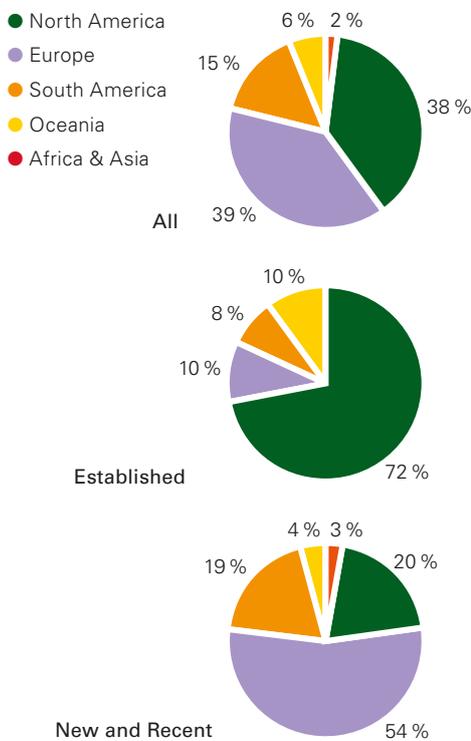


For the first article in this series, please visit iwc.dk and search for News no. 32

TRACKING TIMBERLAND INVESTMENT DEVELOPMENT

Two years ago, The International Woodland Company (IWC) published a first article on the timberland funds and managers universe. Since that time, IWC's knowledge of the timberland investment industry and extensive network has grown, enabling a more thorough analysis of the developments in timberland investment. This article provides depth to previous work by incorporating a selection of IWC's updated data as of December 31, 2012, and additionally drawing distinction between offered and closed strategies.

Figure 1. Managers' headquarters location



THE GROWTH OF TIMBERLAND INVESTMENT MANAGEMENT ORGANIZATIONS CONTINUES

IWC currently lists 112 timberland managers worldwide, a 21% increase compared to 2010. These are defined as organizations that provide, have intended, or intend to provide fund investment management services to institutional investors with an interest in timberland. This article excludes organizations and investment opportunities focusing solely on retail investors, direct investments, or separate accounts.

Among these managers, 40 are labeled as Established – organizations that have been running a timberland management business for at least five years; 34 are labeled as Recent – created between two and five years ago; and, 38 as New – set up within the last two years.

As shown in Figure 1, Established managers are still primarily located in North America while there is a significant share of New and Recent managers emerging in Europe and South America. The upper pie chart combines all groups, showing that managers' headquarters today are more diversified than two years ago, with more based in Europe than in any other region.

>> ... continues on page 2

KEY CHARACTERISTICS

EXPECTED ADDED VALUE

NEW AND RECENT MANAGERS

- Highly motivated teams new to institutional timberland, but not necessarily to forestry or private equity markets
- First or second fund, targeting to raise up to USD 200 million
- Often headquartered in the proposed investment region

- Provides investors with additional access to new markets and strategies
- Local understanding, network, and expertise
- Targeted investment (versus broad or multi-region strategies)

ESTABLISHED MANAGERS

- Track record often gained in the US, more rarely outside of the US
- Experienced with the requirements of institutional investors
- Primarily headquartered in the US

- Economies of scale through their established systems and procedures
- Low execution risk
- Can manage larger asset sizes
- Existing revenue and reputation enable recruitment of highly qualified local professionals

Figure 2. Number of funds, targets and actual equity

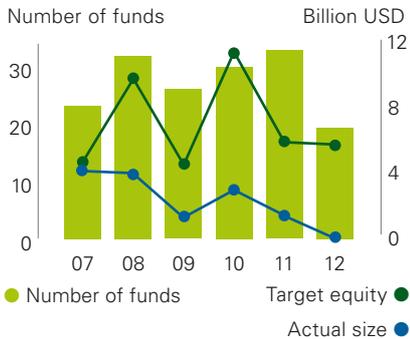


Figure 3. Share of (i) offered and (ii) closed investment strategies per year

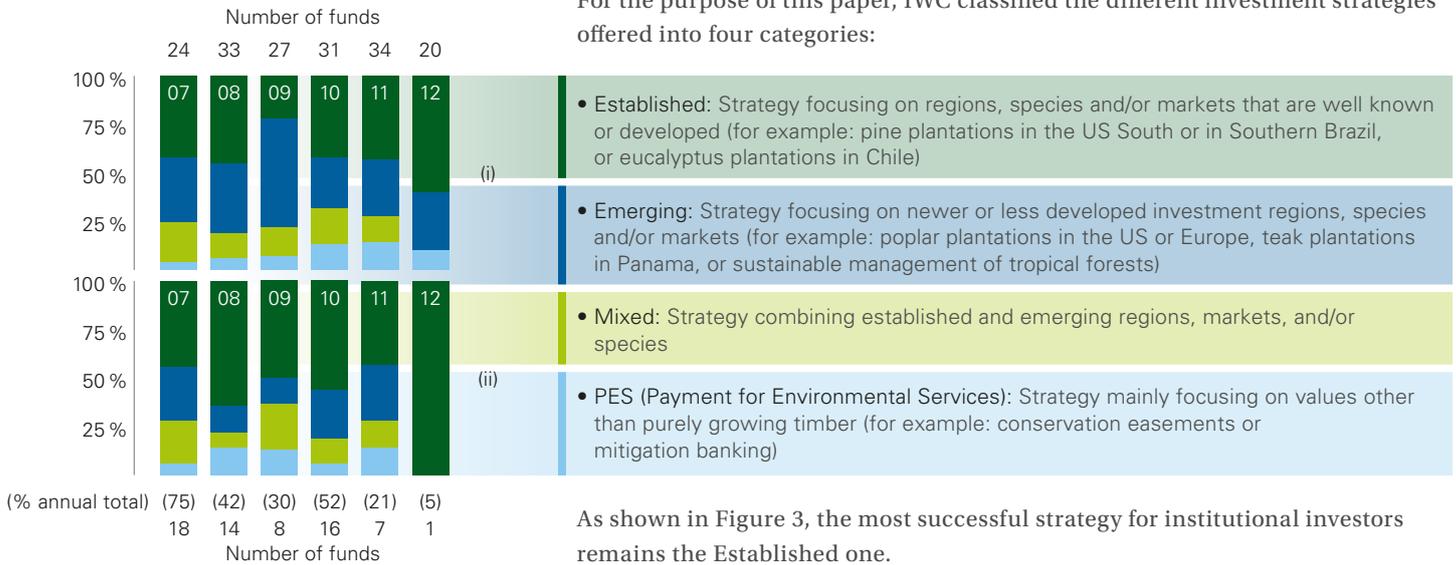
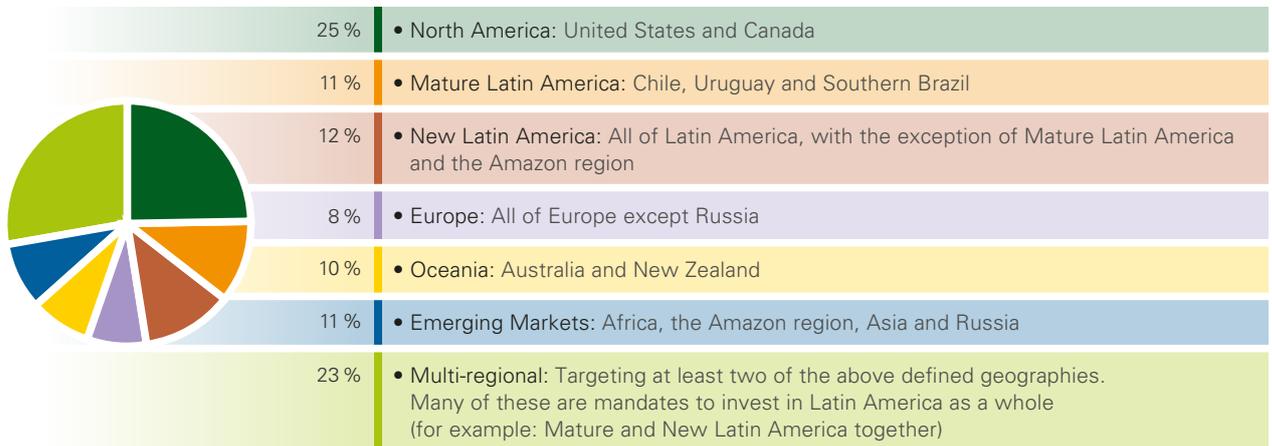


Figure 4. Funds offered in 2007-2012 by investment geographies



STATUS ON TIMBERLAND FUND OFFERINGS

New timberland funds continue to be offered but committed capital is lagging
 IWC is aware of 169 timberland funds that have been offered to institutional investors since January 2007. Of these, 54 (32%) were offered in the last two years. Aggregated target equity size is in excess of USD 42.6 billion over the period, with USD 11.8 billion offered in the last two years. Actual capital committed is substantially lower, at USD 14 billion, but 40% higher than at the end of 2010. The funds are represented in the calendar year that IWC initially became aware of them, but it may take several years to raise capital, if the funds are successful at all. This partly explains why in 2011 and 2012, the actual equity raised and number of funds closed may seem disproportionately low.

Despite the range of options available, investors still prefer Established strategies

Figure 3 shows that about 38% of funds have had a first or final closing, most of which (70%) have been offered by Established managers.

For the purpose of this paper, IWC classified the different investment strategies offered into four categories:

- **Established:** Strategy focusing on regions, species and/or markets that are well known or developed (for example: pine plantations in the US South or in Southern Brazil, or eucalyptus plantations in Chile)
- **Emerging:** Strategy focusing on newer or less developed investment regions, species and/or markets (for example: poplar plantations in the US or Europe, teak plantations in Panama, or sustainable management of tropical forests)
- **Mixed:** Strategy combining established and emerging regions, markets, and/or species
- **PES (Payment for Environmental Services):** Strategy mainly focusing on values other than purely growing timber (for example: conservation easements or mitigation banking)

As shown in Figure 3, the most successful strategy for institutional investors remains the Established one.

North America remains the preferred target investment region, though Oceania, Emerging Markets and Europe are increasing in popularity

Similarly, IWC looked into the funds' target geographies and has classified these into seven categories reflecting different risk and return expectations:

Figure 4 shows that North America is still the primary investment region offered, although its share in the timberland investment universe has decreased 4% compared to 2010. This is closely followed by the Multi-regional and Latin America geographies, both of which have also decreased their share slightly since 2010. Offerings in Oceania, Europe and Emerging Markets have increased by approximately the same magnitude in the past two years, and IWC believes the trend toward more opportunities in Emerging Markets will continue as managers and investors become more familiar with these regions.

No shift in marketed target returns over the past two years

The range of net real returns that managers believe they can deliver for each of the investment regions is presented in Figure 5. Note that these do not reflect actual performance but manager expectations of future returns. It seems that marketed returns have not evolved significantly in the past two years, as the updated data is almost identical to that of 2010. The spread of target returns within a region is due not only to different underlying assumptions used by various managers, but also reflects the specific assets targeted within the geographies in terms of tree species and markets.

Leverage provisions have become more conservative

As shown in Figure 6, most timberland fund structures allow for long term leverage. However, experience has shown that only a small number of these actually use leverage. Since 2010, IWC has noticed a tendency for the maximum leverage level to be lower than what was previously marketed, most likely due to the conservative approach taken by investors since the latest financial crisis.

An increased focus on cost

Figure 7 illustrates the level of management fees (after the commitment period) asked by fund managers over the past 6 years. Marketed fees in 2011 and 2012 were similar to those marketed between 2007 and 2010.

It also shows that asset management fees in raised funds are below those of un-raised funds. This phenomenon has recently increased, as 68.9% of funds raised have had a marketed management fee of less than 1.5% over the full period, while only 63.3% between 2007 and 2010. This indicates that investors are increasingly focused on costs.

Finally, note that the asset management fee figures do not distinguish between the fee bases, which can have a major impact on total cost. The most common management fee basis among established managers is the lower of capital invested and net asset value (NAV), whereas new players show a preference to charge on NAV or committed capital.

INFORMATION IS KEY TO IWC'S INVESTMENT PROCESS

IWC logs key information about each investment opportunity and investment manager into its proprietary database. This not only enables a thorough analysis of developments in the timberland investment universe, but guarantees a streamlined due diligence process, most importantly allowing IWC to compare assumptions and terms across opportunities. IWC has also formalized a rating system, scoring all relevant factors to assess the attractiveness of investment opportunities.

Figure 5. Marketed real net IRR p.a. by target geography (number of funds)

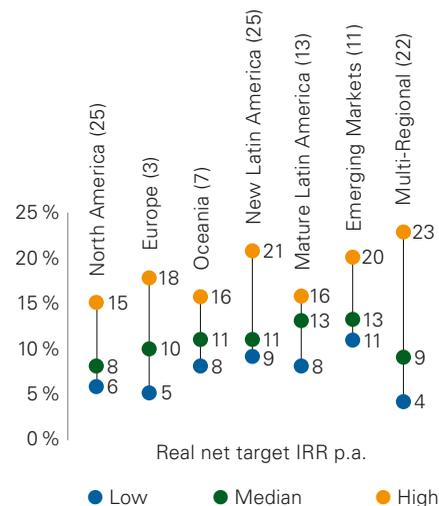


Figure 6. Level of maximum leverage

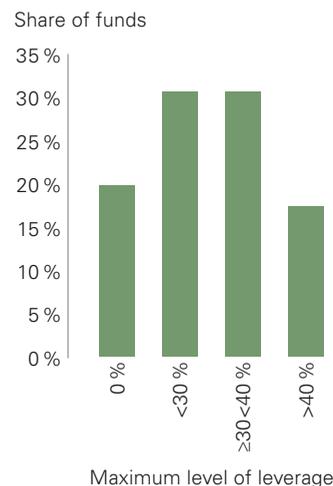
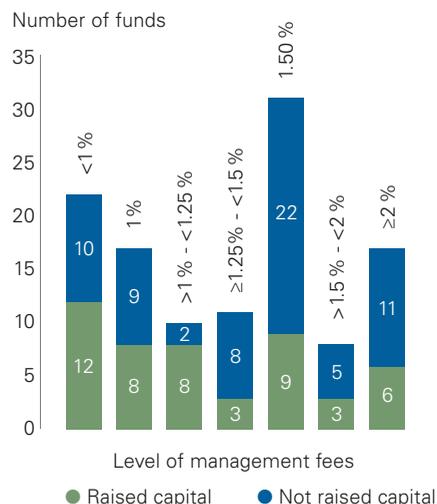


Figure 7. Number of funds by marketed level of management fees after the commitment period





CHINESE WOOD CONSUMPTION

TRADING PLACES – WHY CHINA HAS OVERTAKEN THE US IN APPETITE FOR WOOD

In April 2011, IWC published a newsletter article pertaining to the status and outlook of China's wood balance – indicating a current and projected wood deficit, greater than the entire annual harvest in Canada. The previous article focused on general drivers in growth of wood fiber demand, while this article looks in greater depth at specific consumption patterns. We track the recent evolution of China's consumption of three key product categories: sawnwood, panels and paper, compared to the US – historically the global leader in the wood products industry. From this benchmark comparison, what can be seen is more than a trading of places: China is surpassing the US on nearly all fronts, and at great magnitude, but will this growth continue?

China's annual growth in wood product consumption nears 10% over 20 year period

Broken down by product type, Figure 1 shows that between 1992 and 2011, the US consumption of sawnwood, panels and paper has declined 1% annually. Over the same period, China's consumption has grown 9% annually. While the European and North American timber industry are still struggling in the shadows of financial crisis, the Asia-Pacific region – lead by China, is producing and consuming wood based commodities far above pre-financial crises levels, and is now a world leader in this regard.

China nears US sawnwood consumption levels

The US is known to consume a large proportion of the world's sawnwood for their housing and



INDICATORS OF GROWTH

The increase in Chinese wood demand is primarily driven by the consumption from a growing domestic middle class, the export industry, and the urbanization process.

Going forward, China's GDP per capita is expected to increase further as the middle class, 157 million as of 2009, is expected to increase to 555 million by 2020 (40% of the population). In 2009 the middle class population of North America was 338 million, which is not expected to increase.

construction sector and this is often referred to as the single most important driver of global sawnwood consumption. As illustrated in Figure 2, US sawnwood consumption has decreased



Figure 1: Wood product consumption in the US and China from 1992 to 2011 (FAO, 2012)



Figure 2: US and China sawnwood consumption and import (m³) from 1992 to 2011 (FAO 2012)

drastically after the financial crises in line with historically low housing starts.

Contrary to the declining trend in the US, steady growth in Chinese sawnwood consumption is explained by expansion in the furniture, door, and floor manufacturing sectors as well as aggressive construction activity. The later has been supported by attractive loan facilities from the Chinese government during the global financial crisis. As of 2011, this has put China almost on par with US consumption. However, these state incentives were restricted in the middle of 2011, and as a result, Chinese sawnwood imports decreased 5 % in 2012 from the previous year.

Strong construction and manufacturing sectors make China a global leader in panel consumption

China's consumption of wood based panels has grown 10 fold since 1992, with consumption surpassing that of the US during 2006 (Figure 3). Like sawnwood, panel consumption in the US is largely driven by the housing sector, explaining the drop at this time. On the other hand, it is evident that the financial crises have had little impact on growth in China's panel consumption. Though China also uses panels in construction, it is important to highlight the significance of the manufacturing sectors. Panel consumption in the manufacturing of furniture, doors and flooring target both the export market (particularly the US), as well as the growing domestic consumer market. Ultimately, the diversity and strength of end markets for this product have contributed to its impressive growth.

China's domestic paper industry is the largest in the world

Paper consumption in China has increased 500 % from 1992 to 2011 - where it is now the largest domestic paper industry in the world. Paper production is among the largest fiber consumers of all wood products in China, and around two thirds of all wood fiber imported (in the form of pulp, chips and recycled paper) is used in the paper industry. China's increase in consumption is firstly driven by industry demand for wrapping and packaging and secondly by consumer demand for print paper. In the US, the use of electronic media is the main reason for reduced paper demand, while demand for wrapping and packaging has also decreased due to the economic crises and subsequent decline in demand for consumer products.

Positive outlook for wood demand - both in China and the US

Despite the current slowdown in demand from the housing sector, Chinese wood consumption is set to resume growth throughout the next decade in line with the Chinese economy. Even with the recent change in central government in China, where future policies are yet to be fully revealed, it is difficult to imagine GDP growth rates below 7%, as this level is regarded by many experts to be the minimum growth rate for maintaining social stability in the country. IMF foresees GDP growth of 8.5 % per year going forward to 2017. Additionally, it is important to keep in mind that despite the downward trend in US wood consumption in recent years, this country remains to be the world's largest economy and has shown marked sign of recovery - especially in the housing sector. Thus, indications are positive that demand will remain strong in China, and improve in the US on course with pre-financial crisis levels.

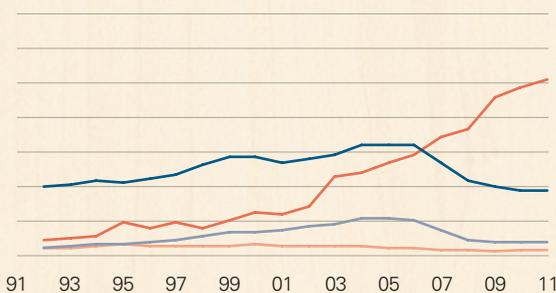


Figure 3: US and China panel consumption and import (m³) from 1992 to 2011 (FAO 2012)

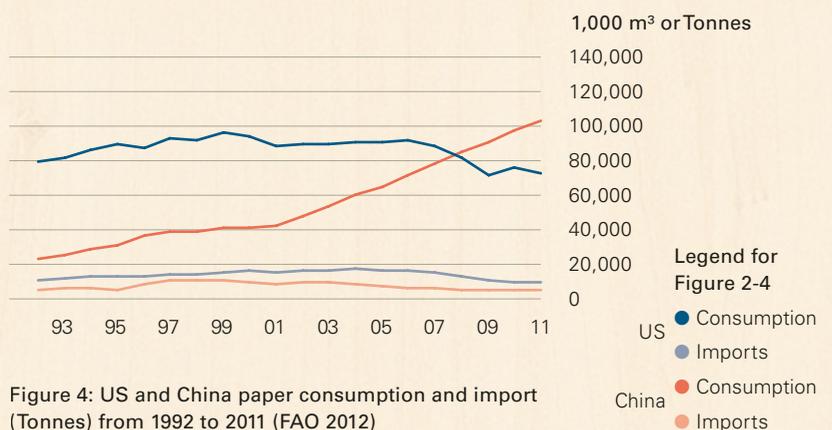


Figure 4: US and China paper consumption and import (Tonnes) from 1992 to 2011 (FAO 2012)

IWC WELCOMES THREE NEW EMPLOYEES

Øystein Juul Nielsen joined IWC's Fund Investments team in December 2012 as an Investment Forestry Analyst. His role is to provide analysis and research supporting IWC's timberland advisory services. Previously, Øystein held a Post-doctoral research position at the University of Copenhagen where he worked with research projects in Asia, Africa and South America. He has a PhD in forestry and is experienced in

applied economics and econometrics, statistical analysis, survey implementation and data management.

"My ambition is to provide high quality research that serves the interests of IWC's clients; sharing knowledge and views with colleagues that hold different professional backgrounds is essential to achieve this."



Fabien Rétif joined IWC's Fund Investments team as Due Diligence Analyst in January 2013 after a 6-month internship. His main role is to support the due diligence process through first contact with a fund manager to presentation to IWC's internal Investment Committee. Fabien also contributes to different ad-hoc analyses. Fabien holds a MSc in International Finance from the ESC Rennes School of Business, spending his master year in Taiwan at the National

University of Sun Yat-Sen. Prior to joining IWC, Fabien worked as a Financial Auditor with Grant Thornton in France.

"IWC is providing me with the rare opportunity of being part of an expanding company investing in an attractive and sustainable asset worldwide. I am looking forward to facilitating the selection of the most relevant investment opportunities for our mandates."



Oksana Wehlast joined the Fund Investments team in January 2013. As Back Office Manager, Oksana is responsible for the development and implementation of a centralized unique database in order to bring efficiency to IWC's growing structure and manage its activity from different international locations. Her other responsibilities include data management, client report coordination, and other back office tasks. Oksana holds a BA in International Law (Minsk, Belarus) and the Award in Financial Administra-

tion from the Chartered Insurance Institute (UK). Prior to joining IWC, Oksana worked as a Financial Assistant at Zurich Financial Services (UK).

"Information management aims to improve the effectiveness of an organization and allows better decision making. It is my goal to bring structure to the essential back office disciplines within IWC in order for the company to achieve superior performance and client communication quality."



IWC EXPANDS ITS SCOPE OF BUSINESS

In the autumn of 2012, IWC Holding successfully established IWC Investment Partners Fondsmæglerselskab A/S, a company regulated by the Danish financial authorities (FSA). Under this structure, IWC Investment Partners has the added capabilities of handling discretionary portfolio management.



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