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IWC NEWS DIFFERENT VEHICLES TO NAVIGATE THE TIMBERLAND INVESTMENT ENVIRONMENT

The means to access timberland investments are gradually developing. To date, many investors have primarily been exposed to timberland through primary fund structures where investment decisions are vested with timberland investment management organizations, so-called "TIMOs". As the first generations of these funds come to an end and the asset class matures, investment options are increasing. The purpose of this article is to highlight some attributes of key investment vehicles that are now available to investors (depicted in Figure 1) and the ways in which they can be accessed. Among other learnings, the article emphasizes that a comprehensive forest investment understanding is vital to evaluate the underlying assets. Furthermore, broad exposure to the asset class is difficult to achieve on a stand-alone basis.

Investment vehicles

Motivation for investors to allocate capital to timberland is mainly driven by objectives to obtain a desirable return/risk relationship, inflation protection, and asset diversification. Traditionally, investors have made their timberland investments through blind pool funds. These are generally larger funds that provide scale and diversification to investors that have less wish to participate in the investment decision process and hold a limited forest investment understanding.

In recent years, IWC has observed an increase in deal sourcing of known timberland assets offered through targeted funds, co-investments, side-by-side investments, and secondaries. Common among these investment vehicles is the required forest investment understanding to assess the underlying timberland assets. This includes an evaluation of the cash-flow model, assumptions, and market expectations. These investment opportunities are often less diversified in terms of asset concentration within a portfolio and market

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Figure 1. Overview of investment vehicles in the timberland universe. All investment types require careful selection and on-site evaluation of managers. Investment vehicles in the solid colored area additionally involve an assessment of the underlying forest assets. A separate account is, in principle, a primary fund with only one investor; thus the same considerations apply as for primary funds.



1. BLINDPOOL PRIMARY FUND

Scenario: The assets in this fund are unknown to investors at the time of investment. The strategy of a single geography that includes assets targeting different timber markets is known.

- The investor is aware of market diversification and geography specific characteristics, but at the time of investment commitment the assets have not been identified
- The investor may have a limited understanding of timberland investment and bases its decision on the strategy, manager evaluation, and overall fund expectations
- The manager should be thoroughly evaluated on its investment management abilities, but also for it's forest management expertise
- Terms and conditions are negotiated at the fund level

2. SEPARATE ACCOUNT

Scenario: This is a multiple asset investment with one investor.

- The investor has significant capital to allocate to timberland
- The investor may have been targeted by the seller or other intermediary
- The investor has a good understanding of timberland investment in order to carry out a thorough evaluation of the fund
- The investor may seek involvement in investment decisions
- Terms and conditions are highly negotiable

3. CO-INVESTMENT

Scenario: Subsequent to final closing, a blind pool primary fund is seeking additional capital, to acquire an asset which is too large for the fund itself.

- A current investor in the fund is targeted by the manager regarding the opportunity
- The investor would have access to significant information on the asset
- Forest investment understanding is required to evaluate the decision
- There is no need for manager evaluation
- Terms and conditions are very negotiable, especially as the manager may need capital on short notice

4. SECONDARY

Scenario: One of the investors of the described primary fund has decided to exit early. The investor is now seeking a replacement investor to take over the seller's commitment to the fund.

- The investor would have access to significant information on the assets in the fund
- There is a potential discount at entry because the terms and conditions are rarely negotiable basically accepting the terms of the original investor being replaced
- Forest investment understanding is required to evaluate the assets and terms and conditions

exposure; and therefore require a clear understanding of the risks and opportunities. Because the timberland assets in such investment vehicles are already identified, investment management costs are typically lower compared to blind pool funds, which include due diligence costs in their management fees.

Co- and side-by-side investments typically arise when a fund requires capital for investments in excess of the primary fund's capital. A key difference between the two is that a side-by-side investor is not participating in the primary fund, while a co-investor is already committed. Co-investors typically can negotiate favorable terms and conditions on participation in this next round of funding, while side-by-side investors often gain access to more favorable terms compared to investors in a primary fund.

Targeted funds are created when managers are aiming to acquire one or several pre-identified assets but have no capital at hand from their current mandates. In such cases, managers generally start by presenting the opportunity to selected prospective investors, based on their asset knowledge and ability to commit capital quickly.

Secondary investment opportunities arise when timberland investors prefer liquidity before the funds terminate, and thus exit early. The exiting investor then sells a portion of the fund to another investor. Secondary investments are normally acquired at a discount to the latest booked value; in part, because terms and conditions are rarely negotiable.

Separate accounts are tailored to single investors that prefer more authority of investment strategies and decisions. Separate account investors typically have a mandate to commit substantial capital to timberland.

How to gain exposure

The main pathway for investors with limited timberland investment experience to gain exposure to the asset class is through primary funds. At a minimum, investors should carry out an on-site manager evaluation to assess the manager's ability to execute fund strategies.

rigure 2. Example of different investment vehicles which could be used to access a hypothetical timberland investment IWC knows that ongoing sourcing activities generate access to more opportunities, such as targeted funds, co-investments, side-by-side investments, and secondaries. Furthermore, secondary investment opportunities are expected to increase as primary funds look to extend their initial term, particularly in the US. These opportunities are mostly offered to preferred partners who hold both capital and forest investment understanding and who are able to respond quickly. As there is a desire by TIMOs to develop strong relationships with preferred partners, new investors may find it difficult to access the various investment vehicles independently. That said, larger secondary options are sometimes also offered through a broker engaged by the seller.

Conclusions:

This article highlights that various timberland investment vehicles require different resources, networks, and forestry-specific understanding (Figure 2). Blind pool funds typically require less forest investment understanding and decision making responsibility. It is nonetheless critical that managers are evaluated for their ability to execute fund strategies. Going forward, an increasing number of opportunities will require investors to assess specific timberland assets. This is potentially a challenge for investors with limited in-house resources and capabilities, and a barrier to those investors with less developed industry specific investment relationships.

To accommodate investor's specific barriers to entry, IWC offers structures that provide access to *co-investments, secondaries* and select *primary fund* opportunities. Exposure to deal sourcing comes from IWCs idea generation, existing investment relationships, and global network. Investment benefits arising from accessing these various vehicles are realized due to IWC's timberland investment understanding and its ability to source and execute investment opportunities in a professional and efficient manner.

IWC WELCOMES NEW EMPLOYEES

Pia Bastrup joined IWC in September 2015, bringing almost 10 years of experience, as a Due Diligence Manager, with export finance and nonrecourse investments in primarily infrastructure and renewables to the team. As a Due Diligence Manager, Pia's area of expertise is sourcing and evaluating prospective fund investment opportunities within timberland and driving projects from initial screening, thorough assessment and negotiations to final recommendation and closing.

Pia holds a MSc in Political Science from the University of Southern Denmark. Before joining

Erik Anderzén joined IWC in January 2015 as an Investment Management Analyst. Erik is part of the Forest Investment Management team and contributes to the management and continued development of IWC's direct investment mandates.

Erik holds a MSc in Forestry with a major in Business Administration from the Swedish University of Agricultural Sciences (SLU) in Uppsala. Prior to joining IWC, Erik has been working in IWC, Pia has held positions at EKF (the Danish Export Credit Agency), most recently as Chief Underwriter facilitating Danish exports through structuring financing solutions and securing funding of wind power projects worldwide. Prior to that Pia worked at EKF as a Country Risk Analyst, focusing on political, economic and market risks in Latin America and Sub-Saharan Africa.

"Why IWC? Because being part of a truly international atmosphere investing in long-term sustainable and renewable assets that provide attractive returns really resonates with me. As a top tier with a strong track record and high level knowledge, IWC is the place to be when working with timberland investments."

the field of forestry with forest management and inventory monitoring for different Swedish forestry companies.

"I am proud to be part of a strong and dedicated team of professionals at IWC, with strong employee and customer values. My ambition is to contribute and ensure that IWC's forest investments will continue to benefit our clients in a profitable and sustainable manner."



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CURRENCY EXPOSURE IN TIMBERLAND INVESTMENTS

In recent years, we have seen significant depreciation of the Euro, Brazilian Real, Australian Dollar, and New Zealand Dollar against the US Dollar, driven largely by a strengthening US economy and local general market developments and expectations. In light of recent exchange rate volatility, this article outlines currency risk considerations for US Dollar and Euro denominated timberland investors and identifies measures that may reduce this risk.

Currency exposure over the life of a timberland investment

In institutional timberland investments, most of the value is preserved as capital that appreciates with biological tree growth. Operating income from tree harvest and timber sales often make up a relatively smaller proportion of the investment return due to the long time period required for the trees to reach maturity. The main currency transactions are therefore, at entry and exit. That being said, specific timberland characteristics can alter the relative composition of capital appreciation and accumulated cash-flow. For example, investments into mature assets require larger up-front investments, but in turn provide periodic revenues; favorable to a cash-flow generating strategy. On the other hand, greenfield projects (i.e. young timberlands) are primarily capital appreciation strategies with lower initial capital requirements and cash cost during the investment phase (Figure 1). From a discounted cash flow perspective, there appears to be lower exchange rate risk for greenfield projects, as less capital is typically invested relative to mature assets in the initial phase of the project. Despite these quite different strategies, simulation results indicate that the exchange rate risk is only marginally lower for mature assets compared to greenfield assets 1.

1 Simulating 5,000 random walks (μ =0, σ =0.2) of the Brazilian Real exchange rate over a 10 year project term gave almost identical USD denominated IRR distributions for a mature and greenfield asset. Measured by their relative standard deviation, however, exchange rate risk appears to be slightly lower for mature assets. Total capital allocated was identical for the two assets and 100 basis points were added to the IRR for the greenfield asset to account for illiquidity.



The long holding period for timberland investments of 10 to 15 years makes it expensive and difficult to hedge currency exposure. Nevertheless, there are options to hedge currencies for shorter periods and known cash-flows, such as upcoming capital calls or distributions. IWC reports quarterly currency exposures based on the net asset value (NAV) of investments so that investors can decide if they want to take currency hedging measures.

Currency exposure depends primarily on export exposure and price parity adjustments

The link between a good's price and foreign exchange can be explained by the purchasing power parity (often referred to as "PPP"), which assumes that a basket of goods in different countries should be similarly priced when expressed in the same currency (Box 1).

Empirical evidence of purchasing power parity for a basket of goods suggests, however, that the full adjustment period for these prices to equalize can be long - six to ten years – simply because markets remain segmented². For a natural resource like logs, the link to foreign exchange is also generally weak, due to the fact that logs mostly trade within national borders. This is primarily because wood processing industries cannot remain competitive if they procure logs over long distances due to high transportation costs. However, when markets are integrated, log prices are generally correlated with exchange rates, which can also be deducted from the results illustrated in Figure 2.

New Zealand K-log producers are primarily exposed to the Chinese log market that buys logs in US Dollars. Though the producers are paid in New Zealand Dollars, local prices adjust almost fully to changes in exchange rates because the New Zealand log market is highly competitive and transparent. The strong correlation to the Euro originates from the strong correlation between the US Dollar and Euro. The main markets for Australian woodchips are Japan and China. After prices have shifted to be traded in US Dollars, wood prices are expected to become more correlated with US Dollar exchange rates going forward. The currency link appears weaker for timberland investments exposed to domestic softwood log markets in the US, Brazil, and Australia. Timber prices in the US are mainly driven by US housing starts, thus not affected by foreign exchange. However, Pacific Northwest (PNW) log export prices are also driven by the Chinese log market, and during periods of greater exposure to the Chinese market, the correlation between PNW log prices and the Euro exchange rate is expected to be stronger than shown in Figure 2. In Australia, softwood log prices are to a large extent static, as log producers are locked into supply agreements with processing facilities that only slowly adapt to wood price changes in the market. Australia is, however, a net importer of sawn softwood, which should drive local sawnwood and log prices up or down according to Australian exchange rates. Since 2013, the depreciation of the Australian Dollar to the US Dollar and Euro has prompted sawnwood import prices to increase, which have also marginally affected domestic log prices ³.

Diversified timberland portfolio and foreign exchange

Because of the generally weak market integration between regional log markets, and weak relationship between their prices expressed in US Dollar or Euro terms, geographic diversification provides a means to minimize foreign exchange risk.

Modelling a global portfolio distributed across the US (30%), Oceania (30%), South America (30%), and Europe (10%)⁴, shows that US Dollar and Euro denominated price volatility can be reduced to a level similar to the US South, the largest and most mature timber market globally (Figure 3). This suggests that a currency risk premium can be significantly reduced through a geographically diversified portfolio. That being said, exit timing is crucial. For example, US investors who have invested abroad in recent years have lost value from currency. However, considering the long time horizon of timberland investments, over the longer term, the dynamics shown in Figure 3 should hold.

3 Woodmarket edge 2014, KPMG Australian Pine Log Index

²Rogoff, K. (1996). The purchasing power parity puzzle. Journal of Economic Literature. Vol XXXIV, pp. 647-668.

⁴ The specific weighted distribution is: US South (21%), US PNW domestic (4.5%), US PNW exports (4.5%), New Zealand K-log export (15%), New Zealand S1-log domestic (6%), Australian softwood logs (9%), Brazil pulplog (18%), Brazil pine (12%), and Swedish spruce log (10%).

Box 1

Purchasing power parity explains that relative price change between countries and the difference in inflation should be offset by a corresponding opposite move in exchange rates between those countries (and vice versa). However, as a consequence of various transaction costs related to transportation, tariffs, and regulations, there is a large buffer within which exchange rates can move without producing an immediate and proportional response in domestic prices.

Figure 3 further depicts that market risk is the primary risk to a timberland investor for regions with export exposure; such as New Zealand and the US PNW. The foreign exchange risk adds to timber price volatility in US Dollar and Euro terms, with larger risk being added to timber-land investments that target domestic markets or specific industries (such as pulp in Brazil or the housing sector in Australia). These results reinforce the findings in Figure 2.

CONCLUSION

Capital is typically the main value component in a timberland investment, which implies that the largest currency exposure is at the time of entry and exit. Although mechanisms exist for periodic currency hedging, options to hedge long term currency exposure are expensive and difficult to implement given an investment horizon of 10 to 15 years. However, inbuilt currency hedging can potentially be applied in timberland investments:

- In a globally diversified portfolio, the overall US Dollar and Euro denominated price volatility can potentially be reduced to a level that compares with that of investments in the US South (historically, the most stable market for timber prices).
- Considering single geography portfolios, foreign exchange risk is lower for assets in geographies with a strong timber export market. This can be explained by price parity adjustments resulting from exchange rate changes.
- Where the domestic market operates fairly independently of export markets, there is an increased foreign exchange risk.
- b Results are derived from regressing changes in quarterly timber prices (in local currency) against changes in quarterly exchange rates and control variables such as housing starts and USD log export prices to adjust for market related effects.
 * Indicate coefficients statistically different from 0 at 1 or 5% significance levels. The coefficient for New Zealand k-log is additionally not statistically different from 1 and a full translation of the exchange rate could therefore also be assumed in this case.

Figure 1. Illustrative cash-flow profile in Brazilian Real for a hypothetical 7 year rotation eucalyptus timberland asset in a 10 year investment project (IRR the same for both assets)

Mature
 Greenfield



Figure 2. Adjustment in timber prices (local currency) in response to changes in foreign exchange ${}^{\tt 5}$ (Source: IWC Analysis)



Figure 3. Timber price volatility in US Dollar, Euro, and local currencies (blue bar). AU=Australia, NZ=New Zealand. The dotted line indicates the US Dollar standard deviation for a modelled global portfolio = US (30%), Oceania (30%), Latin America (30%), and Europe (10%).

