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IWC NEWS

INTEREST ALIGNMENT IN INSTITUTIONAL PRIVATE TIMBERLAND INVESTMENTS

Timberland investment management organizations (TIMOs) have historically designed their structure, terms and conditions based on the private equity fund model. Through the years, IWC has built experience with this model, paying particular attention to LP-GP interest alignment within institutional timberland investment. This article outlines and organizes potential misalignment issues that we have identified and includes examples and considerations regarding how alignment of interest could potentially be improved, compared to current market practices.

Interest alignment in investments describes an arrangement in which all parties stand to benefit from one particular outcome while when an investment fails, all parties lose. The aim of interest alignment is to properly incentivize the agent (GP) to fully optimize the success for the principal (LP).

Table 1: Main types of possible interest misalignment between LP and GP as identified by IWC

POTENTIAL MISALIGNMENT	DESCRIPTION
Shirking	Minimize effort expended
Inappropriate risk-taking	Gamble below hurdle, de-risk above hurdle
Double-dipping	Have fund pay costs that should be GP's
Over-spending fund money	Incur excessive costs to gain private benefits
Zombification	Delay divestments to get management fees
Over-investment	Over-invest solely for management fees
Over-staying	Stay even when LPs want the GP gone
Multi-tasking	Allocate resources to other projects
Profit shifting	Make most profitable investments elsewhere
Diworsification	Stretch mandate (e.g. geography, asset type, etc.)

Breaking down interest alignment

Based on IWC's experience and knowledge of common market terms and conditions, table 1 below highlights broad categories of potential interest misalignment. Each of these categories should be evaluated in light of the relevant contractual terms and information specific to the investment [1].

Each potential misalignment arises inadvertently through design of the terms and conditions, and where there is an incentive for the GP to act in a way that benefits itself and not necessarily the LP. That said, not all will apply to any structure or GP and other potential misalignment may occur under special situations.

Example 1: Performance fee related items like shirking, zombification, and multi-tasking

When an investment performance is so far below the lowest hurdle for the performance fee calculation that carried interest for the manager is no longer realistic, the intended incentive effect disappears. In such situations, managers may be incentivized to hold assets to earn management fees (zombification), to reduce effort (shirking), and/or to shift resources to other funds/accounts (multi-tasking).

[1] For a typical TIMO structure, such information includes carry percentages, hurdle rates, management fees, items covered by expenses to be paid by the LPs, divorce clauses, investment mandate scope, key person clauses, transparency, regular reporting standard, as well as qualitative assessments of the integrity and career incentives of the GP's staff.

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IWC

COMMODITY PRICES: HOW DO LOGS COMPARE?

Log prices are a primary contributor to volatility in the ongoing valuation of a timberland investment, and thus following and forecasting trends are important to understand the direction a timberland investment is likely to take. Logs are a commodity, but the dynamics behind price trends and volatility between commodities are not necessarily the same. This article shows that log prices in the US South have appreciated in real terms over the last 100 years, but that the current long-term trend points to price depreciation due to productivity gains. Log prices can fluctuate by 40% from the long-term price trend, and although this is significant, it is still lower than price fluctuations observed for other commodities. Currently, prices in the US South are about 20% below long-term trend.

Commodity price trends and volatility

The most common way to explain commodity price trends relates to the process of technological innovation, where growth in new production techniques gradually replaces older and less efficient technologies. Thus, over the long-term, more cost-effective producers should cause commodity prices to decline in real terms. However, the general long-term real price trend for the major commodities shown in Figure 1[1] has either been positive or flat - despite the recent fall in commodity prices. The US South stumpage pine price[2] has, for example, appreciated by 35 percent since 1915, while US crude oil and iron for the same period are up by 41 and 18 percent respectively. A simple explanation for the real price appreciation is that growth in demand has not been met by corresponding cost-reducing progresses by producers. Wheat is a notable exception that has seen real price deterioration throughout the period, where a three-fold post-war productivity gain adopted by most producers has likely pushed wheat prices down[3].

Drivers of US South pine prices

The top portion of Figure 2 displays real stumpage pine prices in the US South with the long-term trend superimposed[4]. It can be seen that log prices have appreciated in real terms following the Great Depression, driven by the depleted timber resource and development of the pulp industry in the 1930s, after it became technologically possible to produce reasonable quality pulp from pine[5]. After 1970, the price trend turned downward due to an increase in pine plantation supply. Productivity gains in pine plantations have been quite remarkable since 1950, in line with yield gains observed for wheat[6]. However, the transformation to intensively managed pine plantations has been slow[7], implying that over the period, wood was also sourced from less productive, natural pine stands with limited supply potential. An increase in pine supply from the maturation of higher productivity plantation

Figure 1
Commodity price development (Real prices)

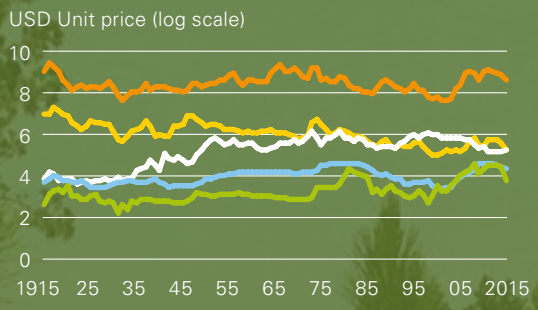


Figure 2
Delivered pine log prices and deviation from long-term trend

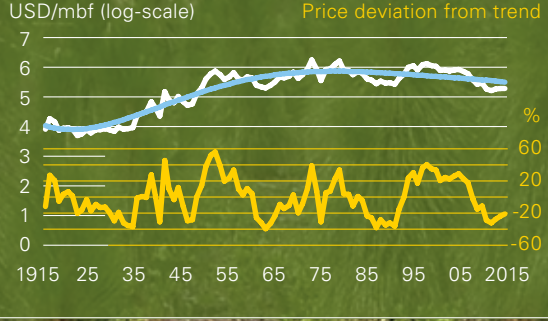
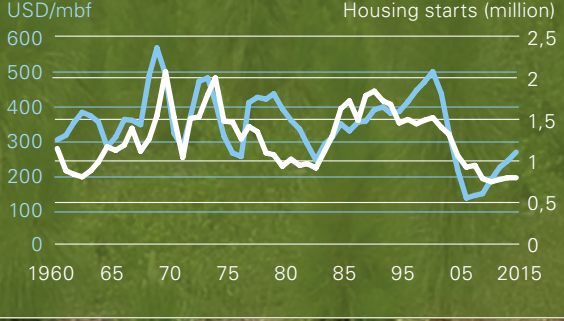
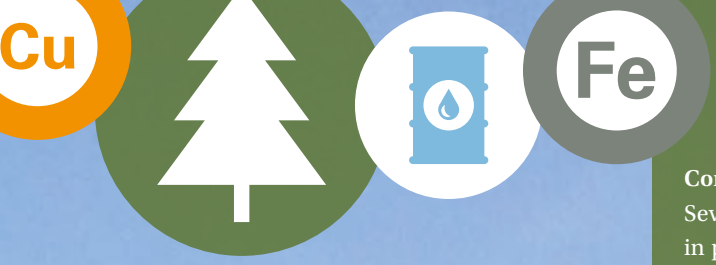


Figure 3
Pine log prices and US housing starts





wood explains the moderation of prices since 1970. In the early 1990s, there was a second minor structural price shift, when the US Forest Service decided to scale back their timber production significantly to protect spotted owl habitat in the Pacific Northwest, which created a gap in wood supply.

The bottom of Figure 2 shows that the deviation between real log prices and the long-term trend can be quite significant, with fluctuations of up to 40%. However, the price volatility for pine logs is lower compared to other commodities, which on average fluctuate 50% from their respective trends, with oil prices even up to 75%. Currently, log prices are about 20% below the long-term trend.

Price deviations are generally demand-driven and associated with US housing starts (Figure 3). However, wood supply can disrupt this relationship. For example, the boom in housing starts in the 1980s likely coincided with the spike in pine plantations of the 1950s coming to maturity[8]. Log prices therefore remained subdued through this period. Going forward, the market expects 1.5 million housing starts per year. However, as in the 1980s, similar supply dynamics prevail, mitigating immediate price recovery. Excess supply in the current period is a result of extra volume on the stump from deferred harvest and a peak of pine planting in the 1980s that are coming to maturity. The constrained supply situation in Canada, the largest exporter of wood to the US, is expected to relieve some of the supply pressure in US South.

Conclusion

Several factors have driven US South pine log price trends. Before the boom in post-war pine plantation establishment, developments in the wood industry have driven log prices up. Since then, higher plantation pine supply (realized through increases in both yield and planted area) has mitigated further price increases. The long-term price trend suggests that prices peaked in the 1970s, and generally speaking, improvements in timberland productivity to date have dampened further upward price development.

For investors, it is important to consider long-term commodity price trends and where we are in the cycle. Log prices in the US South are currently below the long-term trend, due to subdued housing starts. Real price appreciation is likely to be slow due to sluggish housing recovery and the wood supply situation going forward.

Finally, real price depreciation does not necessarily imply decreasing timberland prices. Agricultural land prices, for example, have trended upwards in real terms – partly supported by productivity gains[9]. For timberland prices, the increase in wood plantation productivity, and the technological development in the sawmill industry to utilize smaller logs, have counterbalanced price depreciation through shorter rotations and more volume on the stump at final harvest. Further research to substantiate this is however required.

1 Data derived from: (i) Pfaffenzeller, S. et al. (2007). A Short Note on Updating the Grilli and Yang Commodity Price Index. World Bank Economic Review pp. 1-13; (ii) World Bank Commodity Price Data (The Pink Sheet) http://www.worldbank.org/en/research/commodity-markets; (iii) Timber-Mart South. The Journal of Southern Timber Prices; (iv) Hair, D. & Ulrich, A.H. (1963). The Demand and Price Situation for Forest Products. US Forest Service; (v) Phelps, R. (1976-77). The Demand and Price Situation for Forest Products. US Forest Service; (v) U.S. Geological Survey. Commodity Statistics and Information. http://minerals.usgs.gov/minerals/pubs/commodity/; (vii) US Energy Information Administration

2 Commodity prices are generally reported in delivered prices and it would therefore be more correct to include delivered log prices in the analysis. However, the stumpage price is the most relevant measure for timberland investors, and due to a high and statistically significant correlation between stumpage and delivered log prices (~0.95), conclusions are not altered using stumpage prices in this analysis.

3 USDA.

4 The long-term trend is identified by using the asymmetric Christiano and Fitzgerald band-pass filter method. The advantage of this method is that it estimates trends across the whole data set. For description of method see Erten, B. and Ocampo, A. (2012). Super-cycles of the commodity prices since the mid-nineteenth century. DESA Working Paper No. 110, United Nations.

5 Fox, T.R. et al. (2004). The evolution of pine plantation silviculture in the Southern United States. In: Gen. Tech. Rep. SRS 75. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. Chapter 8. p. 63-82.

6 From 60 tons/acre at harvest in 1950 to 180 tons/acre in 2010. Clonal tree varieties can add an extra 30 tons/acre. Source (see note 5)

7 In 1950, there were less than 1 million hectares of pine plantations. In 1970 that area grew to about 5 million hectares, while the area today is closer to 16 million hectares. Source (see note 5)

8 U.S. Forest Resource Facts and Historical Trends 2014.

9 (i) USDA. (ii) Lindert, P.H. (1988). Long-term trends in American Farmland Values. Working Paper Series No. 45, Agricultural History Center, University of California.

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The most obvious way to reduce the likelihood of arriving in the above described situations is to set a relatively low first hurdle rate. However, all other things equal, this alone would result in higher total fees for the GP. To keep the total compensation equal, other parts of the fee structure including the ongoing asset management fee, should also be reviewed. A less obvious way to reduce the likelihood of investment performance from falling below the lowest hurdle is to either use benchmarking or adjust returns for factors beyond the GP's control when calculating carried interest. This is not always practically feasible, but when it is, it has the desirable effect of reducing the non-controllable risks that the GP is exposed to and thus reduces the uncertainty about the level of carried interest that will be earned; keeping GPs incentivized to maximize performance. Additional contract design measures also include GP co-investment and easier no-fault divorce clauses.

Example 2: Investment mandate related items like diworsification

When LPs choose to make an investment, they typically do so because they believe the GP has an edge in a given type of investment strategy or because the investment strategy in itself is deemed attractive. Both of these motivations require the GP to operate within certain, sometimes very restrictive, limitations when making actual investment decision. However, it is not always in the GP's interest to operate under such limitations and they may want to stretch their mandate, for example in order to establish a track-record in new geographies or investment types.

This type of potential interest misalignment is particularly important to address before committing capital to a GP since it is aggravated rather than mitigated by the presence of carried interest, making investments with generally good interest alignment particularly likely to be victim of diworsification. To understand why, consider the effect of performance incentives on the GP's motivation to turn down a high return / higher risk investment – it is probably lesser than one may wish for. As a result, a clearly defined mandate, substantial GP co-investment, and possibly LP investment decision review rights, should be essential areas of focus during the due diligence process.

Making interest alignment considerations unique

Although this article has generalized interest alignment issues, we understand that LPs' unique goals and risk/return profiles require individual analysis so that they are matched not only with suitable investments, but with suitable GPs. In that light, IWC maintains regular internal dialogue on interest alignment and has recently designed two internal tools to assess these issues when looking into new and current investments. Understanding how misalignment of interests can take place and where to address them in the LPA can assist in the challenging discussion on interest alignment, and ensure the best chance of a successful investment for all parties involved.

IWC INTEREST ALIGNMENT TOOLBOX

ALIGNMENT SCORECARD

This tool is designed to ensure that all interest alignment questions are considered during the due diligence process. It has been structured around broadly defined types of potential misalignment in order to enable an analysis of human as well as contractual factors and provides reminders to ensure that all relevant facets are taken into consideration.

COST STANDARDIZATION TOOL

Differences in cost allocation between GPs and the mandates they manage, as well as differences in fee structures complicate comparisons by prospective LPs. This tool facilitates such comparisons by calculating an expected annuity-equivalent fee percentage based on the project specific cash flow assumptions supplied by the GP and reviewed by IWC's investment professionals.

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