TIMBERLAND INVESTMENT RESOURCES LLC

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TIR

TIMBERLAND INVESTMENT STYLES

What They Mean for an Investor

Tom Johnson, *Managing Director*

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Introduction

Timberland is one of the newer asset classes to emerge within the institutional investment sector during the last 30 years, and investors are still developing a knowledge base about its attributes and fundamentals. This document was developed to further their efforts by outlining the primary investment styles currently employed within the sector by timberland investment management organizations (TIMOs). It also explores the impact these styles can have on fundamental investment decision-making, investment risk and overall performance.

When institutional investors first began participating in the timberland asset class during the mid-1980s, their attention was largely focused on its basic fundamentals. How are returns generated? What are the inherent risks? What investment vehicles are available? These are still among the primary questions new timberland investors ask today. Given the asset class' track record, however, those investors and investment consultants who are already quite familiar with timberland's investment attributes are increasingly seeking a better and deeper understanding of the various investment styles that are employed by those managing forest investments on behalf of foundations, endowments, pension funds and high net worth families. They also are exploring how managers' styles are linked to specific investment strategies and the business models, approaches and capabilities TIMOs employ. This "style bucketing" allows investors to more easily differentiate between managers and to discern how their respective approaches can impact the overall risk and return characteristics of the timberland investment programs they build on behalf of their clients.

As is the case with any other asset class, a prospective timberland investor's first task is to determine what type of exposure is appropriate given the risk and return objectives being pursued. This determination provides the strategic clarity that is necessary to evaluate prospective managers and to identify those that will be best-suited for meeting the investor's specific objectives. In situations where the goal is to achieve broader diversification by hiring multiple managers to handle a single funding mandate, identifying an optimal mix of approaches and capabilities from a collection of TIMOs can be challenging unless one has a solid understanding of the universe of investment styles that are utilized across the sector.

Style classification helps set expectations about how a particular strategy will perform in a given market environment. This, in turn, makes it easier to select the right combinations of managers. Such labeling also helps investors and their consultants determine whether a manager is changing its investment style or drifting away from the way the manager has historically added value on behalf of its clients. That said, it is worth noting that "style drift" in and of itself is not necessarily a negative or problematic behavior. In some cases, it may be merited given changing market dynamics. Consequently, it often can be a worthwhile topic of discussion between TIMOs and their clients – both to educate investors about general market trends and to ensure that such changes are being made deliberately by a TIMO for the right reasons.

The discussion that follows will provide an introduction to the primary investment styles TIR currently observes being utilized within the timberland asset class. It also includes an assessment of the influence these style choices and preferences have on the key parameters of asset allocation, market focus, transaction size and business model selection. Perhaps most importantly, it includes observations on how TIMOs' style choices can impact the risk and return profiles of the programs and portfolios they build for their clients.

In addition to expanding general understanding about timberland investment fundamentals, TIR's objective in providing this overview is to assist investors with the process of categorizing managers and their investment styles. We hope this perspective will support investors' efforts to select firms and service providers that are best positioned to meet their timberland investment objectives.

Investment Style

Unlike traditional asset classes, like equities and fixed income, where the process of defining and categorizing an investment manager's style is relatively easy, the task can be somewhat more challenging when one is evaluating TIMOs because of timberland's unique investment attributes. Furthermore, as the asset class has expanded and matured since its introduction to institutional investors in the mid-1980s, the investment approaches TIMOs have employed have evolved dramatically, largely in response to changing market conditions and the expanding creativity and risk tolerances of investors. For instance, some TIMOs began as regional investment specialists – focusing their efforts exclusively in one geographic region or another (e.g., the U.S. South, the U.S. West, the U.S. Northeast, etc.). However, as institutional investors began demanding greater levels of market diversification, and as emerging investment opportunities became larger and more geographically dispersed, some of these managers began to expand into new markets and regions and to develop the perspectives and expertise necessary to operate successfully in them. While a variety of timberland investment philosophies, strategies and approaches have emerged over time, today, all TIMOs can generally be placed in one of four "style buckets:" macro, growth, value and specialty.

- **Macro** – TIMOs that employ a macro focus tend to emphasize a macroeconomic view of the factors that are shaping the various industries and markets that drive timberland investment opportunities and performance. They usually embrace a top-down approach to investment selection and deploy broad asset allocation and timberland market exposure strategies to drive returns. While this approach does not ignore other factors, such as professional forest management, asset allocation is the key variable that is viewed as influencing overall investment performance. Macro managers tend to utilize a buy and hold mentality, locating investments within targeted regions and focusing on liquidating portfolios in a planned and disciplined fashion at the end of pre-established investment terms.

- **Growth** – TIMOs that can be categorized as growth managers seek to invest in areas where market and investment fundamentals are expected to accelerate over the term of their clients' investment windows. Growth oriented managers tend to target regions or specific tree species that they believe will be positioned for exceptional growth in response to these trends. They believe enhanced investment performance may be generated by either structural increases in demand or decrease in supply for land or wood products in their targeted regions. Growth focused managers also tend to be driven by a well-defined buy and hold discipline, executing on dispositions at the end of a pre-established investment term, or when they have determined that targeted investment markets have achieved the growth objectives that were anticipated when related acquisitions were initially made.

- **Value** – Value managers seek to identify and capitalize on pricing anomalies or on market inefficiencies from various sources. They often target properties or markets that they believe are undervalued – perhaps because of the unrecognized potential of local wood or land markets, or the fact that a particular region or property has untapped biological potential. For instance, a value manager may recognize that a region or property is capable of growing higher value timber than others may realize, or that it offers attractive access to land or wood markets that are positioned for future growth. Value managers tend to be more active managers than other types of TIMOs. As another example, they may seek to capitalize on favorable wood and land pricing dynamics by timing timber harvests and land sales to take advantage of emerging or short-term market trends. In addition, value managers tend to react quickly and decisively to market opportunities when they perceive hidden intrinsic value. Value managers also tend to place less emphasis on asset allocation considerations or sources of growth.

- **Specialty** – Specialty managers tend to focus on a specific, well-defined sub-market of the timberland investment world – buying and selling land that has unique attributes on behalf of their clients. They usually operate in niche markets that can be categorized by geography (the Appalachian Region of the U.S., South America, coastal forests of the Pacific Northwest, etc.); by dominant tree species (U.S. eastern hardwoods, U.S. southern pine species, northern boreal softwoods, etc.); or by value-added disposition strategy. For instance, they may focus on buying, improving or selling land for real estate development. Alternatively, they may emphasize creating and marketing wetlands mitigation banks or transitioning sensitive forests from the private to the non-profit or public sectors by selling fee land or conservation easements to mainstream environmental groups and governmental agencies. Specialty-oriented TIMOs tend to develop, deploy and market their services in areas and sub-sectors of the timberland investment market where they believe they enjoy a unique competitive advantage. They usually believe they can unlock value that other, more conventionally-focused, TIMOs will either overlook or be unable to tap because they lack the necessary market perspective or highly customized timberland investment and forest management expertise.

Asset Allocation

With regard to asset allocation considerations, there are three approaches TIMOs commonly employ:

- **Global Allocation** – The TIMO creates an overall multi-regional allocation strategy that is based on its perception of the optimal risk and return profile of its client base.

- **Tactical Regional Allocation** – The TIMO develops a strategy that is designed to allocate client capital to regions that offer either exceptional growth or value opportunities. Markets are typically evaluated based on individual merit, which is determined by pre-established evaluation criteria. The typical outcome of such a strategy is a targeted or concentrated allocation that would stand in obvious contrast with a global allocation strategy.

- **Regional Specialist** – The TIMO focuses on a single (or a limited number) of regions based on historical experience and demonstrated expertise.

Managers that utilize different investment styles tend to take different approaches to asset allocation. Macro managers typically follow the global allocation model. Growth and value oriented managers tend to favor a tactical regional allocation approach (although in some cases, growth and value managers can be regional specialists – provided they can demonstrate that value or growth opportunities exist in the geographic areas in which they specialize). Finally, specialty managers are typically tactical regional allocators or regional specialists, depending on where they believe they can execute a strategy that fits with their unique specialty orientation.

Market Focus

Timberland risk and return dynamics are heavily influenced by the timberland investment characteristics of the countries in which an investor participates. As would be expected, countries with long-established histories of successfully hosting timberland investment activities tend to have much lower risk profiles than those that could be described as new or emerging investment destinations. When developing a global investment strategy that includes international markets, country risk clearly should be a major consideration, but it should not be the only criteria used to evaluate the expected risk and return characteristics of a manager's target allocation. An understanding of how markets are actually defined within the timberland investment space also is important.

- **Established Markets:** Established markets are those that are composed of countries or regions that have a demonstrated history of successfully hosting *proven* institutional timberland investments. A *proven* investment is one that has been managed through a full life-cycle – from acquisition to disposition – and that has generated positive returns.

  Proven timberland investment markets currently include Australia, Brazil, Canada, Chile, New Zealand, and the United States.

- **Emerging Markets:** Emerging markets include regions where early stage timberland investments have been made. However, these types of investments generally have yet to show a track record of *proven* performance, which, again, means they have not gone through a full investment cycle and produced positive returns for investors.

  Emerging timberland investment markets currently include Argentina, China, Latvia, Mozambique, South Africa, Indonesia, Ireland, France, Sweden, Estonia and Serbia.

- **Potential Markets:** Potential markets are those that have yet to host institutional timberland investments, but which, theoretically, have the biological and market characteristics to do so in the future. They often are closely studied by TIMOs; however, in most cases, political, regulatory, and economic reforms must be adopted before these regions are considered by a prudent institutional investor to be a viable candidate for timberland investment. For example, many countries with highly productive lands that can support forest plantations either lack sufficient enforcement of property rights to allow a private investor to manage the land and timber to its highest economic use or may lack sufficient infrastructure or forestry support services to efficiently grow, harvest and sell the timber.

  Among others, potential market countries currently include Colombia, Russia and Malaysia.

Macro oriented managers tend to focus on Established Markets, while Growth, Value and Specialty managers are often flexible with regard to expanding their market focuses on an opportunistic basis.

Transaction Size

TIMOs may place greater or lesser emphasis on transactions of different sizes based on a variety of organizational and strategic considerations. Some managers will argue that discounts can be achieved by pursuing and executing larger acquisitions, while others firmly believe that, based on the current investment climate, it is less costly and more efficient for investors to place capital in the middle market. TIR's conception of how the U.S. timberland investment market can be categorized (based on transaction size) is outlined below:

- Mega Transactions - Over $350 million
- Large Transactions - $100 million to $350 million
- Middle Market Transactions - $10 - $100 million
- Small Transactions - Below $10 million

These numbers would be scaled by at least one half for less developed markets that are located outside of the U.S.

Style choice does not directly lead to a particular transaction size focus among TIMOs, but it can be an indication of whether a particular TIMO is operating in a manner consistent with its stated style or orientation. For instance, a TIMO that has positioned itself as a value oriented manager, but which consistently focuses on pursuing acquisitions in the mega transaction market, may be operating outside of its stated style or orientation – that is because mega transactions tend to be well publicized and are broadly and carefully analyzed by potential acquirers. Such sales also are normally completed through crowded and highly competitive auction processes. Since value oriented managers normally focus on identifying and capitalizing on unrecognized inefficiencies to generate premium returns for their clients, the characteristics of the typical mega transaction do not fit the value manager's ideal profile for planned acquisitions.

Business Model Fit

The business model employed by a TIMO should complement its investment style. Within the timberland investment community, four primary business models have emerged through time. A brief description of each can be found below.

The Contractor-Based Model

This is the baseline model employed by some TIMOs and it resembles a traditional real estate investment and property manager approach – where an investment manager builds a portfolio of real estate holdings (e.g., office buildings, shopping malls, apartment complexes, etc.,) and then hires independent property management firms to oversee day-to-day, on-site operations. In short, TIMOs that employ this model usually have in-house acquisition, portfolio management, client reporting and administrative expertise, but they hire contract forestry firms to run ground-level operations on their clients' lands. These contract forestry providers conduct the property management decision making for harvesting, silvicultural management and wood merchandizing, among other things.

The Vertically Integrated Model

TIMOs that employ a vertically integrated model typically have separate forest management subsidiaries that provide all of the day-to-day, ground-level management services needed to operate clients' lands. Unlike the contractor model described above, where portfolio and client servicing is bifurcated from forest management, in the vertically-integrated model most value-adding services and capabilities are directly controlled by the TIMO through a formal integration chain that connects portfolio and forest management. TIMOs that employ this management model closely resemble integrated real estate operating companies.

The Hybrid Model

TIMOs that use the hybrid model tend to out-source their forest management, research and decision support functions. However, they usually employ highly-trained and experienced "regional foresters" who oversee the third-party contractors who provide this specialized expertise to ensure that they are operating in a manner consistent with the TIMO's investment objectives.

The Horizontally Integrated Model

TIMOs that employ the horizontally integrated model are focused on building internal expertise in key decision support functions. The objective is to directly staff all core functions that have the potential to directly impact clients' investment performance. Unlike hybrid managers, which typically outsource one or more of the following capabilities – economic research, biometric research, real estate management and client accounting and reporting – horizontally-integrated TIMOs generally develop and maintain these functions in house. They also usually employ in-house foresters to oversee all ground-level forest operations, including planting, harvesting, silvicultural prescriptions and wood merchandizing. Routine forest management functions are usually handled by contract forestry firms.

Connecting a TIMO's investment style to its business model is useful for an investor because it can provide an indication of whether the manager is organized and has access to the capabilities it needs to execute its stated investment strategy. For example, if a TIMO is a self-styled macro manager, then the key investment consideration it must manage is asset allocation. That means the TIMO must be staffed and organized to make and manage all investment decisions with a strong asset allocation focus. Likewise, if a TIMO is positioned as a value or opportunistic oriented manager, it must have the skills required to identify and evaluate those transactions that are related to inherent inefficiencies within its target market.

Risk and Return

Investment styles can result in markedly different risk and return characteristics. In general, the more specialized and focused the style or strategy, the higher the risk (because there is normally less emphasis on diversification). Similarly, the higher the market risk exposure, the greater the overall portfolio risk, which means investors should be entitled to higher overall return expectations. The chart below highlights the expected risk to return characteristics of the different investment styles profiled in this document.

INVESTMENT STYLE	RISK TO RETURN PROFILE
Specialty	Higher*
Macro	High
Growth	Lower
Value	Lowest

**The risk adjusted returns can be lower or higher depending on the specialty.*

To illustrate these associations, all else being equal, if a TIMO is pursuing a strategy that is solely focused on a specialty or niche market sector, like hardwood forests, clients' return expectations should be higher than they would be if the manager was employing a macro, value or growth strategy. Again, assuming all else being equal, a value manager should have a lower risk profile than a growth manager because it should be focused on identifying and leveraging a set of inefficiencies, and not on capitalizing on a specific supply and demand gap (which may not materialize). While these are broad generalizations, they provide some useful perspective with regard to how style can affect a manager's risk and return profile.

Gaining more specific insight on how investment style translates into risk and return depends heavily on how disciplined a manager is in its application of its style. Some managers are style purists, rarely, if ever, deviating from a particular way of investing. Such consistency makes it easier to ascribe a particular risk and return profile to their activities. Most managers, however, embrace the flexibility to deviate from a "professed" investment style to capitalize on evolving market opportunities. This is common across many asset classes, but understanding the basic style framework and how a manager or its strategy fits within the framework allows the investor to better assess the impact of any deviations from the expected style. TIR's commentary on risk and return is only meant to provide general associations. There are many factors beyond style, including consistency of style application, that influence a manager's risk and return profile. Some of these additional considerations include a manager's approach to diversification – and specifically as it pertains to species, end-use timber products, age of timber, and the manager's willingness to invest in varying risk market sectors (e.g., higher risk green field operations).

Summary

Understanding a TIMO's investment style is useful because it can enable an investor to make inferences about the risk and return characteristics of the manager's strategies. Linkages to investment style can be established to examine the degree to which the manager's business model, approach to asset allocation, market focus and transaction size preferences fit with the client's particular investment needs and interests. These associations also allow an investor to evaluate how well positioned and provisioned a particular manager is to execute its intended investment strategy. In the end, this comparative perspective can help an investor select a single manager or, if manager or style diversification is a priority, an optimal mix of managers. The chart below demonstrates and summarizes these linkages.

INVESTMENT STYLE	EMPHASIZES	ASSET ALLOCATION	MARKET FOCUS	TRANSACTION SIZE	MOST APPROPRIATE BUSINESS MODEL
Macro	Asset allocation as the key investment decision	Global asset allocation	Can be any market, but is typically the Established market	Tends to be larger	Usually contractor-based but maybe hybrid in demanding markets (primarily fast growing regions that requires a high level of supervision)
Growth	Identification of long-term supply and demand gaps	Likely a tactical asset allocation or regional specialist	Can be any market, but typically the Established or Broad Markets	Should vary over time	Hybrid or horizontally integrated (with resources focused on identifying growth opportunities)
Value	Primarily a set of inefficiencies at the portfolio level	Likely a tactical asset allocation region specialist or regional specialist	Can be any market, but should vary over time to reflect opportunities	Should vary over time	Vertically or horizontally integrated to capture inefficiencies
Specialty	Typically one primary perceived structural inefficiency	Asset allocation a byproduct of specialty focus	Market focus a byproduct of specialty focus	Size a byproduct of specialty focus	Can be any model that most effectively identifies and exploits opportunities within the targeted specialty

Appendix A

In an effort to demonstrate how its conceptual framework can be applied to analyzing a particular manager, we have provided an assessment of our firm for each of the parameters indentified in the paper above. We hope this insight serves as a useful example.

Example: Timberland Investment Resources – Investment Style Analysis

The chart below demonstrates how Timberland Investment Resources, LLC (TIR) would be categorized using the style framework outlined in this paper.

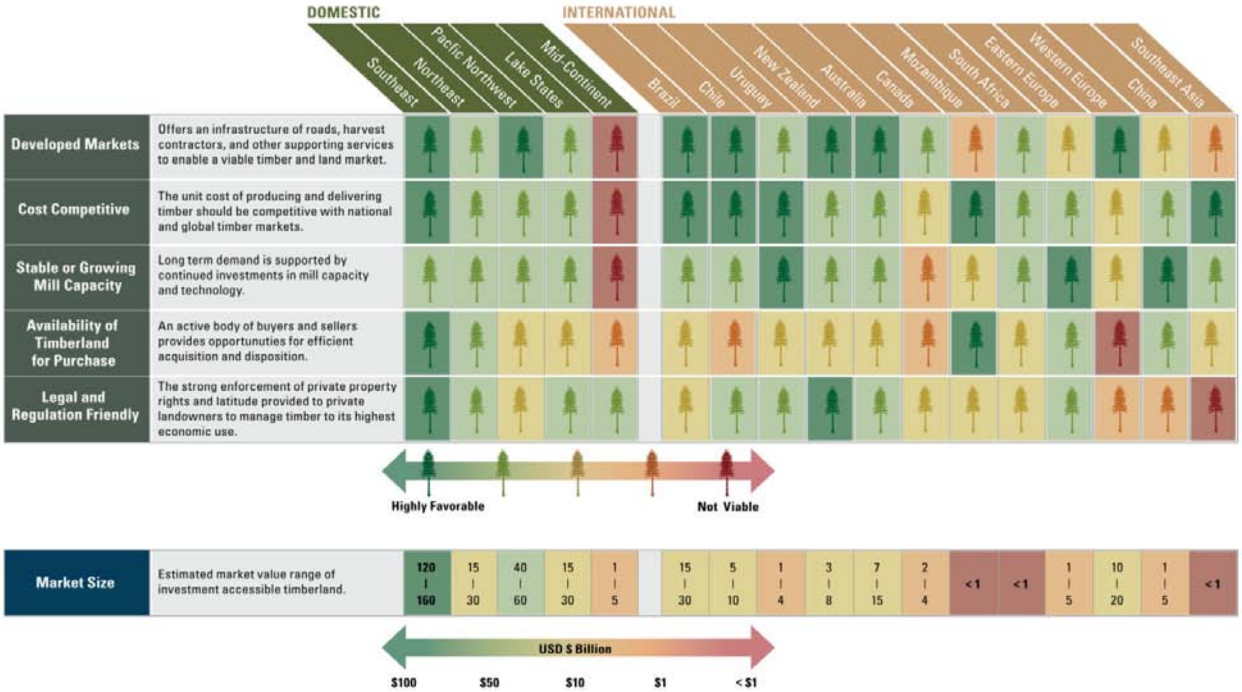
INVESTMENT STYLE	ASSET ALLOCATION	MARKET FOCUS	TRANSACTION SIZE	BUSINESS MODEL
Macro	Global Allocation	TIR **Established Market**	Mega Market	Vertically Integrated
Growth	TIR **Tactical Asset Allocation**	Broad Market	Large Market	TIR **Horizontally Integrated**
TIR **Value**	Region Specialist	Pioneering Markets	TIR **Middle Market**	Hybrid
Speciality	Speciality-focused		Small Market	Contractor-based

Investment Style

TIR is a value manager. Since the firm's formation in 2003, it has conducted 174 disposition transactions that were valued at more than $157 million. When one considers that TIR's total assets under management currently equal slightly more than $700 million (and that none of the dispositions just referenced coincided with the end of a particular fund's investment term), this level of disposition activity is evidence that the firm is an active value manager. As a core management strategy, TIR also conducts opportunistic timber harvests to take advantage of local market anomalies, which provides further insight on its value oriented investment style.

Asset Allocation

TIR utilizes a proprietary tactical asset allocation model to build its clients' portfolios. The firm augments the model to provide further insight on diversification considerations by using portfolio optimization and risk assessment tools, such as linear optimization and Monte Carlo simulation.



Timberland Investment Resources' tactical regional allocation model.

Market Focus

TIR has a stated regional focus and its transactional activity has been conducted in the Established Market.

Transaction Size

Since its founding, TIR has conducted 17 acquisitions. The average size of these transactions was $30 million, which fits with the firm's middle market orientation.

Business Model

TIR employs a Horizontally Integrated management model. It maintains in-house decision making capabilities in the critical functions listed below and integrates a full-range of decision-support technologies and processes to maintain investment focus and discipline:

- Economic Research;
- Biometric Research;
- Real estate management; and,
- Client accounting and reporting.

TIR also employs Investment Foresters who are located in regions for which they have overall forest management responsibility. These foresters make use of the full range of research, decision-support and specialized capabilities just referenced to plan and direct all ground-level forest operations, including regeneration, harvesting, silvicultural prescriptions and timber merchandizing. In keeping with the Horizontally Integrated management model, TIR's investment foresters typically outsource routine (non decision-making) forest management functions to contract forestry firms.