



Industry News

■ **Canadian lumber market is back on the beam** (Jul 3rd)

Canadian lumber producers found themselves in the eye of the storm after the U.S. housing bubble burst in the recession. The U.S. is traditionally the Canadian industry's principle market. However, a steady rebound in U.S. housing activity over the next two years will spell much better times for North American lumber producers.

— *Montreal Gazette*

■ **House passes bill to hasten timber projects in forests** (Jul 9th)

The goal is to speed up timber harvest and underbrush removal that the U.S. Forest Service deems necessary to improve the health of national forests, which are taking a hit from drought, density and infestation.

— *AP - The Big Story*

■ **From axes to iPads: new logging methods replace traditional ways** (Jul 20th)

iPads mounted in harvesters are loaded with an interactive map produced by a radar-like system that uses light instead of radio wave. It's called LIDAR, which stands for light detection and ranging. The light "pulses" from the aerial pass of a plane produce a map that is so detailed you can see a big picture of the landscape at any scale.

— *ABC.net*

Industry Overview

Forestland Operations

While we kicked off a fairly wet summer in the woods, things dried up considerably as we progressed through August. Throughout the Northeast, foresters and loggers have not only been getting a healthy dose of Vitamin D, they have also been quite busy and productive. It does not get any better than this in terms of our ability to move and deliver forest products, and the occasional rainy day never interrupted our momentum. After a sluggish and wet spring that took a while to break, it has been a welcome change.



The 2015 summer in the Northeast was marked by blue skies, good productivity, and dusty haul roads.

Our logging contractors had excellent conditions in the woods by mid-summer, and found themselves working extra hours. As a result, most major landowners in the region appear to be on target or ahead of their annual budgeted harvests.

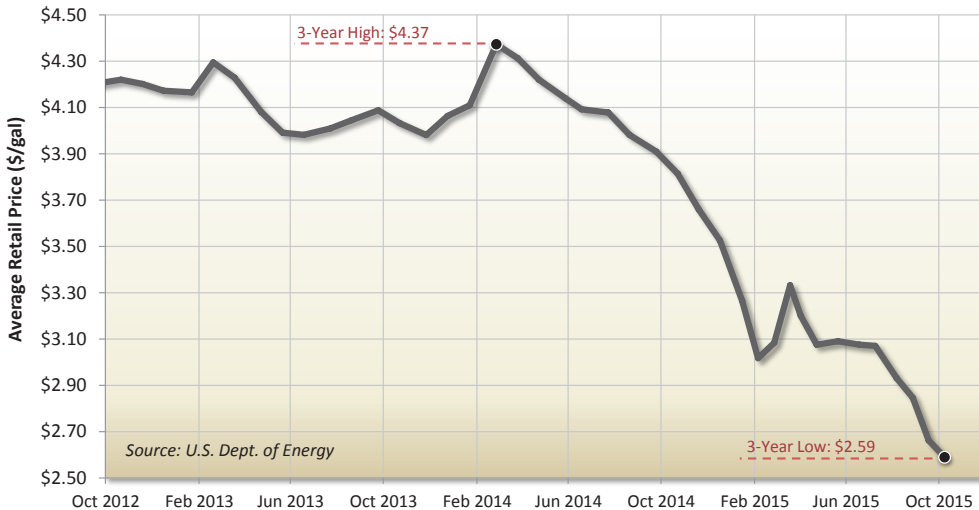
While weather has cooperated, the only impediment to forest operations has been the timber markets (more discussion below) which have kept our foresters on their toes. While we rarely ever change our harvest objectives (i.e. silviculture) based on markets, our team occasionally has to re-evaluate if the economics change. For example, one of our foresters built a half-mile road last summer with plans to harvest this summer, but by the time it came to sell the wood market demand had changed substantially. As a result, the forester had to fall back on an alternate plan

which he had prepared in advance and re-locate the operation. Because this is a dynamic time in the timber markets, it is important that landowners and foresters have a Plan B on the ready - and sometimes Plans C and D as well.

The dynamic markets have had an effect on logging contractors as well. While they have still been enjoying relatively low-priced diesel fuel, most are using more of it as these relocations occur, and as they have had to haul timber longer distances to get to market.

NUMBER 2 DIESEL FUEL PRICES - NEW ENGLAND

3 YEAR HISTORICAL MONTHLY AVERAGES



Forest Product Markets

P&C DEMAND INDICATORS

Representing our opinion of market demand for timber products in the Northeastern U.S.

	CURRENT	OUTLOOK
Sawlogs		
Spruce & Fir	<div><div></div><div></div><div></div><div></div><div></div></div>	DOWN
Pine Logs	<div><div></div><div></div><div></div><div></div><div></div></div>	STEADY
Hardwood Logs	<div><div></div><div></div><div></div><div></div><div></div></div>	STEADY
Pulpwood		
Hardwood	<div><div></div><div></div><div></div><div></div><div></div></div>	UP
Spruce & Fir	<div><div></div><div></div><div></div><div></div><div></div></div>	UP
Pine & Hemlock	<div><div></div><div></div><div></div><div></div><div></div></div>	STEADY
Biomass	<div><div></div><div></div><div></div><div></div><div></div></div>	UP

As a result of the good logging conditions throughout summer, nearly all timber markets in the Northeast are carrying full raw material inventories. This, combined with several regional market shocks, has created a local glut of supply. This is true for pulpwood in particular, and while sawmills aren't necessarily oversupplied with raw materials, they are carefully controlling their inventories because of prevailing low margins. Either way, the effect is the same, and throughout summer we've seen falling timber prices across the board.

Sawn Products

Softwood

We are continuing to see a downward slide on the pricing of finished lumber driven by a broad oversupply in the U.S. market. This is a very tough reality for our regional spruce/fir dimensional sawmills. In particular, those mills that have been holding finished goods inventory waiting for an improvement in pricing are finding themselves in a tough situation and are likely close to the limit of what they can endure on a sustained basis. This is a stark contrast to what appeared to be a sliver of optimism during the spring.



update

3rd Quarter 2015

■ **With a stunning 7 million acres burned so far, the U.S. wildfire situation is looking dire** (Aug 19th) Wildfires are exploding across the western U.S., overstretching resources and in some states, resulting in tragic consequences. Some 30,000 firefighters and additional support are now fighting fires across the U.S. and that's still not enough. The U.S. spends \$100 million per week when it is at wildfire preparedness level 5 - as it is now.

— The Washington Post

■ **Verso to lay off 300 at Jay paper mill** (Aug 20th) The decision comes in response to declining demand for its products and a "comprehensive review" of the company's assets, inventory and demand forecasts. The layoffs come less than a year after more than 500 Verso employees lost their jobs with the closure of the Bucksport mill. The reduction will decrease total employment at the mill to around 565 people..

— Bangor Daily News

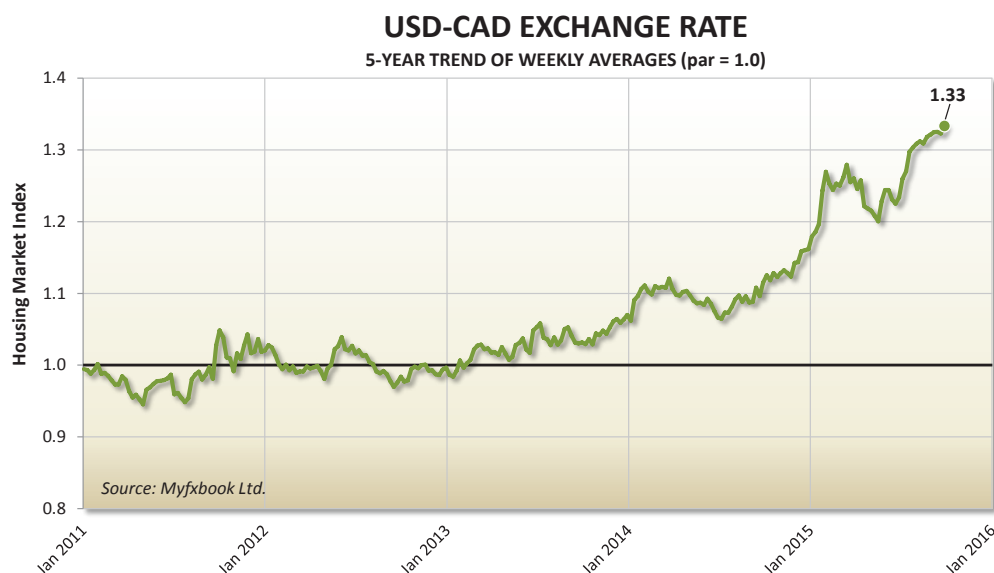
■ **Canadian lumber firms bet on U.S. Southeast** (Aug 27th) Drawn to the region's abundance of fast-growing timber, low prices, and proximity to major housing markets, Canadian companies share of lumber production in eight southeastern states has grown to 25% from just 3% a decade ago.

— The Wall Street Journal

■ **Carbon pricing can help save forest - and the climate-analysis says** (Aug 27th) A tremendous loss of forest and the burning of the carbon they contain would hasten global warming significantly. The loss could be cut nearly in half by placing a price on carbon that pays the landowners to keep their forests intact.

— Inside Climate News

One of the most significant contributing factors to this condition, and most of the commodity forest products overall, has been the strengthening U.S. dollar. Canada in particular is a major producer of dimensional framing lumber and our largest trading partner. The strong dollar (relative to the Canadian dollar) creates an incentive for Canadian producers to sell into the U.S. market and makes imports relatively cheap for lumber buyers. At 30% premiums – see chart below – Canadian producers have been doing just that. Although the economy is recovering and overall consumption of lumber is increasing, the U.S. supply is flooded with imports. If the U.S. continues to be the world's market for lumber, conditions will remain tough for domestic manufacturers.



Yet another challenge for the spruce/fir dimensional lumber mills will be the upcoming expiration of the Softwood Lumber Agreement (SLA) trade deal between the United States and Canada. After a nine-year run and several prior extensions, this agreement will likely expire on October 12th, eliminating import tariffs and quotas on Canadian lumber imports into the U.S. and opening the door to both sides filing trade grievances. While there is a lot of uncertainty as to the lasting effects of this expiration and what to do about it, our feeling is that this will provide further incentive for Canadian lumber manufacturers to release their inventory into the U.S. and press prices even lower.

Here in the Northeast, our string of Quebec Border Mills (9 in total) have been exempt from this agreement, and are attempting to stay exempt from any future agreement. As a representative for landowners here, this is a position we endorse. However, the global nature of these market influences have us concerned about the SLA expiration and what that will mean to the overall health of the spruce/fir market.

While spruce/fir sawstock is part of a tremendously large market and subject to global forces, the market for white pine is much more regionally contained. The mills that saw pine are relatively healthy and have been enjoying steadily increasing finished goods prices. Unlike spruce & fir, the supply/demand continuum in the marketplace for pine is in balance and has been for some time. Although the regional domestic sawmills are not immune to the Canadian import market, demand for pine lumber has been strong enough to buffer the currency swings.

Markets that saw hemlock logs have a little bit of a different challenge on the horizon because of the lack of demand for hemlock pulpwood. Every hemlock tree that has a sawlog in it also



■ **Green surprise: Why the world's forests are growing back** (Aug 29th)

Our planet has become measurably greener, and that points to a way out of the climate crisis. Almost all of the "regreening" since 2003 has been caused by countries increasing their level of urbanization, their proportion of commercial agriculture or their rate of economic growth - all of which created the conditions for a more carbon-friendly ecology.

— *The Globe and Mail*

■ **Wall of cheap Canadian wood to surge south when deal expires** (Sep 15th)

A nine year old Canada-U.S. Softwood Lumber Agreement expires soon. Lumber is accumulating at sawmills, transit yards and rail points inside Canada. Shipped today, that backlog would incur a 15% tariff entering the U.S. That tariff disappears on October 13.

— *Biv.com*

■ **Lincoln Paper and Tissue files for Bankruptcy** (Sep 28th)

The company, which employs 170 people, filed a voluntary petition for Chapter 11 bankruptcy today. The mill will continue normal operations thanks to a financing deal with its senior lender, Siena Lender of Connecticut, until an auction can be organized and the mill can be sold. Lincoln Paper and Tissue is Maine's only tissue mill.

— *Press Herald*

■ **In another blow to Maine's forest products industry, Old Town mill to close** (Sep 29th)

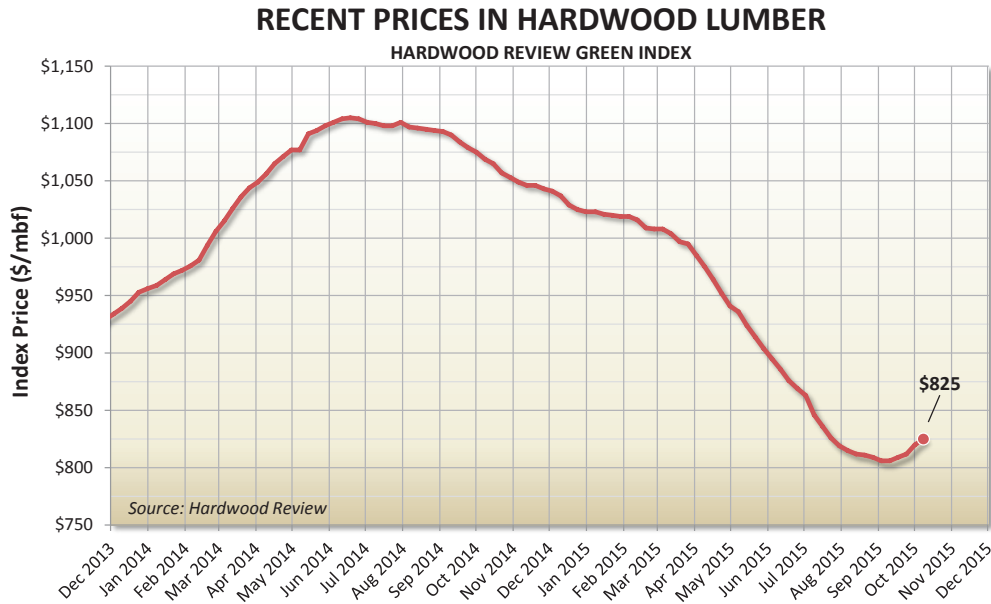
Expera Specialty Solutions announced it would close its Old Town pulp mill by the end of the year. Several factors influenced Expera's decision, including a decline of the Canadian dollar exchange rate coupled with a significant flood of pulp into the market, which has led to a drop in pulp prices.

— *MPBN News*

has pulpwood in it, and it is difficult for landowners to justify cutting a tree if you cannot move all the products it produces. With hemlock pulpwood in such tepid demand, the economics don't allow landowners to sell just the log. This is likely to eventually effect the availability of logs sold into the market – which is frustrating for the mills because the demand for their finished products is quite strong.

Hardwood

After watching their finished product prices slide over the last 12-15 months, hardwood lumber mills now have a glimmer of hope. Pricing has started to turn the corner and most mills that we talk to sound genuinely optimistic about their prospects. Certainly, nobody is talking doom-and-gloom like they were 3-4 months ago. Although this is partly a seasonal effect, we are cautiously optimistic that hardwood markets have reached bottom and we are now seeing the first signs of coming back.



When the market is tight for hardwood, as it is now, quality begins to matter more. It's hard to have a top-quality product when you are fighting seasonal effects of summer, such as sunburn (yes, trees get it too), blue stain and fungus. Maple, a staple of the northeast sawlog market, is particularly susceptible, while cherry, birches and oaks are more resistant. With colder less humid weather setting in, we should see some seasonal boosts to prices as well.

Raw material inventories at hardwood sawmills appear slightly higher than normal, but the outflow of products from hardwood mills is much better than it was a few months ago. This, combined with the seasonal change and recent market improvements, leads us to believe that the elevated inventories will be worked through quickly.

Demand for ash logs remains robust, partly elevated by the state-mandated quarantines in effect for the invasive Emerald Ash Borer beetle, which artificially restrict these logs to local markets.

Pulpwood Products

Across the pulpwood spectrum, we've had another series of market shocks that are still rippling through the region and causing a general malaise in the marketplace. While other areas of the northeast have been buffered from these shocks by distance (the flow of pulpwood is constrained by transportation costs) the Maine pulpwood market has quickly become depressed.

There have been several reasons for these shocks that have occurred in the past few months. First, there were two major markets that purchased a significant amount of pulpwood but wound up changing their product blends between softwood and hardwood and eventually sold their inventory. This may not sound like it would have a large effect, but there were several times this summer when pulp mills outright sold several thousand truckloads of wood onto the market unexpectedly. Combine that with the great logging conditions we've been experiencing and pulp mills' raw material inventories are as full as they have been in some time.





A second factor is that the Expera mill in Old Town recently announced it will be shutting down and going up for sale, less than a year after it was first purchased and after tens of millions of dollars of upgrades. This closure was sudden and was a surprise to nearly everyone, and there has been a tangible short-term impact to demand. We are hopeful that a suitable buyer will be found, but this is a setback at a most unfortunate time, not to mention a blow to the local community.

Third, consumption in Verso's mill in Jay, ME has been scaled back as approximately two-fifths of their softwood kraft production was recently idled. There are only a few places in the region where hemlock pulp is consumed, and the Jay facility is one of them. As a result, demand for hemlock pulpwood has become lethargic. In certain areas, it is uneconomic for landowners to deliver hemlock pulpwood.

Lastly, and no less importantly, global economic forces such as the suddenly strong U.S. dollar have made pulp exports less attractive to foreign markets. Currency issues have been particularly concerning for foreign-owned mills, or for domestic mills that ship their product overseas (many do). High raw material inventories, purchased with expensive U.S. dollars, are likely making these mill owners nervous.

In short, we are expecting headwinds in the local pulpwood markets over the next few quarters, and are anticipating price declines. It will take some time for the dust to settle and for the full impact of these developments to become clear. The market shocks, the good logging conditions, and the long shadow of global trade are certainly creating a challenging environment in the forest products business. The good news is that the underlying fundamentals of the economy are improving, but it will take some time for this difficult market condition to abate.

Benjamin D. Carlisle
PRESIDENT

11th Annual "Who Will Own the Forest?" Conference

by Sam Radcliffe, Vice President

On September 15-17 the World Forestry Center held its 11th annual "Who Will Own the Forest" conference in Portland, Oregon. It is one of the two premier timberland investment conferences, the other being the biannual event sponsored by the University of Georgia. The WWOTF conference targets an audience of institutional investors and the asset managers, lawyers, land managers and appraisers who service this industry. The agenda includes a wide range of perspectives on institutional timberland investing, both domestically and overseas. The sessions this year included:

- The Economic Environment and Wood Markets
- Market Outlook for North American Timber
- Timberland Performance vs. Alternatives
- Institutional Investor Concerns
- Trends and Valuations by Region
- Forest Financing
- Regulatory Concerns and Other Risks
- Issues and Strategies in Managing ESG Expectations in Timberland
- Timberland Information Needs and Obtaining More Accurate Inventories
- Seedling Advances: Increases in the Productivity of the Existing Plantation Base
- Who Will Manage the Forest?
- Green Meets Green: Conservation and Environmental Services
- Global Timber Markets
- China - The Key World Market for Forest Products
- The Growth of Southeast Asian Plantations – Impact on Wood Trade and Investors
- The European Market for Biofuels

I was honored to participate in a panel discussion moderated by Jim Hourdequin of Lyme Timber. The theme of the panel was fairly wide-ranging but centered on discount rates, investor sentiment towards timber, and how timber fits into the broader universe of investing opportunities. I was joined by a distinguished group that included Clark Binkley of GreenWood Resources, Chris Lyddan of RISI and Will Sonnenfeld of Brookfield Timberlands.

Jim kicked off the discussion by noting that discount rates in timber remain at historically low levels – approximately 5.5% real in the US – on a pre-fee, pre-tax basis, well below the rates of returns on timber in the 1990's and early 2000's as



measured by NCREIF^[1]. Essentially, investors have been accepting lower returns that are increasingly weighted to capital appreciation as opposed to current income.

What's behind this shift? Does this make sense? Are investors being adequately compensated for the risk of timberland?

Clark responded that all real assets have experienced the same sort of discount rate compression that we've seen in timberland. He offered an amusing observation that if the trend in discount rate compression over the past ten years is extrapolated to the future, the discount rate for timberland would reach 0% in less than 20 years! He suggested that, based on that observation and the fact that interest rates can hardly go any lower, the discount rate for timberland has nowhere to go but up.

I reminded Jim that we live in a very different world than the 1990's and early 2000's, with:

- historically low interest rates
- consequently low borrowing costs but also low fixed income opportunities
- low inflation
- high demand for but low supply of timberland properties, despite relatively low demand for timber itself, buyers and sellers are now virtually all investment oriented, rather than being production oriented as were timberland-owning forest products corporations in the past

Despite this changed environment during the last 20 or so years, the benchmark NCREIF timberland rate of return has remained highly correlated to the risk-free rate^[2]. At current risk-free levels, that correlation predicts a much lower real timberland rate of return than is indicated by discount rate surveys.

Given where discount rates are now, what are the most compelling arguments for investing in timberland and what kind of expectations should an investor have for timberland performance in the future?

Clark noted that unlike other real assets, timber is what he called "durable". For example, agricultural crops must be harvested annually, whereas timber on the stump can be held to take advantage of markets and pricing.

Will sounded a related theme: biological growth is the distinguishing factor for timberland relative to other assets. Since timber growth is uncorrelated to markets and it is an important contributor to annual returns, it serves both as a volatility dampener and a portfolio diversifier.

Jim then brought up the CALPERS^[3] announcement that it expects to gradually divest from timberland. Other large institutional investors who made investments in timber in the 2004-2008 timeframe – the height of timberland transactional activity – have expressed frustration with timberland liquidity and returns. Some of those investors are putting properties on the market and pressuring funds to return capital. Many investors have imposed a higher "illiquidity premium" on timber and this has resulted in smaller allocations to US timberland and in some cases ex-US timberland as well.

How might these developments impact deal flow in the future? Does the CALPERS decision signal something more significant for the timberland asset class?

Chris is the Executive Editor of RISI's "Timberland Markets Report"^[4], which has been regularly tracking timberland transactions for over a decade. He noted that the trend in transactions has always been very "lumpy" and the pipeline is difficult to predict. Large blockbuster deals such as the recently announced Plum Creek Timber joint venture^[5] represent a small percentage of the deals but a large percentage of the dollars and acres. He expects that characteristic to continue in the foreseeable future. Breaking from the past, he senses that the smaller transactions will involve "grade B" properties and properties that are not ideal for pure-play timberland investors.

Will agreed that not only have certain recently offered properties been sub-grade, but also the offering data and materials have been of very poor quality, inhibiting proper due diligence. He expressed serious concerns about increasing reputational risk in the timberland investment industry.

Clark suggested that timberland's illiquidity has vastly improved as dealmakers have become more efficient and systematic in the sale process. Most investment grade properties can easily be sold in 6-9 months. However, Jim noted that, while sale of a property has perhaps become more efficient, certain fund structures still restrict individual investors from exiting the asset class without taking a deep discount in the secondary market.

Jim closed the session by asking each of us to describe one issue facing timberland investors over the next 3-5 years that warrants more attention – possibly even a topic deserving of a panel discussion at next year's WWOTF conference.

Timberland asset managers have created an industry by convincing investors that private ownership of timberland will provide superior portfolio enhancement relative to ownership of timberland through public markets, i.e. timber REIT's^[6]. I think that thesis needs to be challenged in light of some current observations:

- REIT's are generally trading at something less than their estimated private market values, indicating investors can obtain liquidity relative to the private market at essentially no cost.
- Private timberland has been touted as a hedge against inflation. There is no reason to think that the net asset values of REIT's will not increase along with inflation, but in any case, it has been shown that timberland is an effective inflation hedge only in periods of moderately high inflation. This is not a big economic concern currently.
- REIT's are currently paying dividends in excess of 4%. Many of the private timberland deals coming to market today are projected to have relatively anemic annual cash yields.
- Achieving geographic and species diversification in the private timberland market requires tremendous scale, but such diversity can be achieved with a basket of REIT's at the average individual investor scale.

Undoubtedly, the private market is the best vehicle for certain investors while other investors should not dismiss the public market so easily. Re-examination of the relative attributes of each would lead to a better understanding of the appropriate vehicle for different types of investors.

The World Forestry Center is to be congratulated for hosting another fine standing-room only conference. The dates for next year's conference in Portland are September 20-22, 2016. The University of Georgia Timberland Investment Conference is scheduled for March 1-3, 2017 at the Ritz-Carlton on Amelia Island, Florida.

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- [1] National Council of Real Estate Investment Fiduciaries <https://www.ncreif.org/timberland-returns.aspx>
- [2] The difference between the nominal (not adjusted for inflation) rate of return on timberland (NCREIF, all properties) and the rate of return on long term US treasuries. The rate of return on long term US treasuries is typically considered a risk-free rate of return.
- [3] California Public Employees' Retirement System <http://www.scoop.it/t/timber-invest/?tag=CalPERS>
- [4] <http://www.risiinfo.com/risi-store/do/product/detail/timberland-markets-report.html>
- [5] <http://www.scoop.it/t/timber-invest/?tag=Plum+Creek>
- [6] Real Estate Investment Trusts. There are four major US timber REIT's: Plum Creek Timber, Potlatch Corporation, Rayonier and Weyerhaeuser.

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