

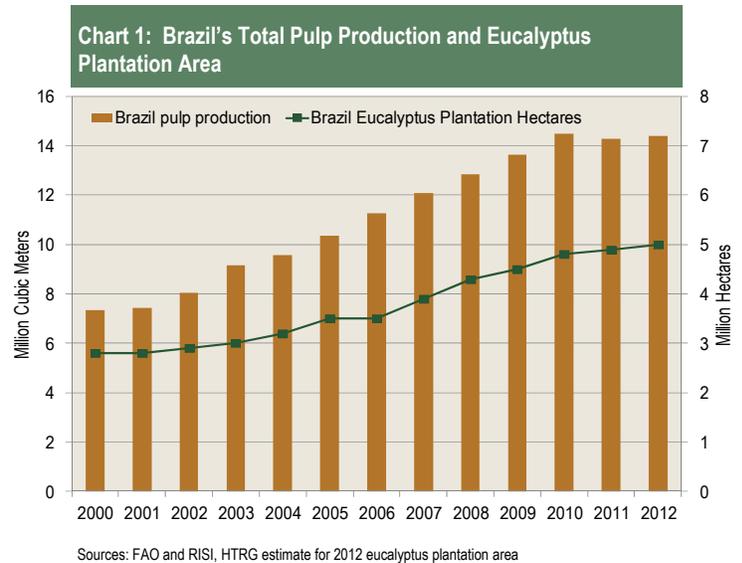
## Brazil Eucalyptus Pulpwood Markets

*Brazil's eucalyptus pulpwood markets are expected to confront headwinds, but longer term prospects remain strong.*

Brazil's Eucalyptus plantations prospered in the 2000s, as consumption of pulp and paper in Brazil grew and global markets for Eucalyptus pulp expanded. During this period, Brazil's export volumes of Eucalyptus market pulp rose dramatically, and a new generation of world class Brazilian pulp mills were built. Between 2001 and 2011, production of pulp in Brazil nearly doubled, rising from 7.4 million tonnes to 14.3 million tonnes, and by 2012 Brazil accounted for 50% of global Eucalyptus pulp production. The growth of Brazilian hardwood pulp production was mirrored in the expansion of Brazil's Eucalyptus resource, which increased from 2.8 million hectares of plantations in 2000 to 5.0 million hectares in 2012.

The economic context for the robust development of Brazil's Eucalyptus sector was a period of healthy economic growth, improving social conditions and political stability. All of these factors contributed to rising investor confidence. In 2000-2012 real annual growth in Brazil's GDP averaged 3.4% (measured in \$US PPP), up from 1.7% per year in the period 1990-1999, while real per capita GDP (\$US base year 2012) more than doubled, rising from \$5,021 to \$11,462. In the period 2003-2012, the average annual change in Brazil's CPI dropped to a manageable 6.4%, from the hyper-inflationary average of 648.6% per year over the previous twenty years.

More recently, Brazil's economic performance has succumbed to a combination of external and internal forces, including: softening global markets for minerals and agricultural commodities; a shift in the flow of capital back in the direction of developed economies; tighter labor markets; and the rising debt level of Brazilian consumers. In 2011-2013, Brazil's average annual growth in GDP slipped to 2.0%, while concerns about inflation have resurfaced. For most of 2013, inflation in Brazil has stayed at the upper end of the range set by the central bank (target of 4.5%, with a margin of two points up or down), and the central bank this April raised its forecast for



inflation in 2014 to 6.1%, up from 5.6%. These inflationary pressures have triggered increases in interest rates, with the benchmark Selig rate moving up from a historic low in April 2013 of 7.25% to 11.0% in April of this year. These elevated interest rates will present a hurdle to reigniting growth in the Brazilian economy in 2014.

Brazil's current economic headwinds are likely to negatively impact domestic consumption of pulp and paper products. Even with a potential setback on the home-front, the outlook for Brazilian Eucalyptus pulpwood remains relatively positive. With just about 60% of Brazil's pulp production shipped abroad, Brazil's pulp industry will be insulated from the impact of deterioration in domestic demand. In the next two years, the value and volume of Brazil's Eucalyptus pulpwood markets will be primarily driven by the strength of exports of hardwood pulp to Brazil's major offshore markets: the U.S., China and Europe. Another key factor determining the health of Eucalyptus pulpwood markets will be the ability of a

*(Continued on page 2)*

weaker exchange rate to boost the low-cost competitive position of Brazil’s pulp sector in global markets.

Conflicting forces will be in play in the principal off-shore markets for Brazilian pulp over the next few years. On the positive side, demand from the U.S. and Europe should improve as the U.S. economy continues to build forward momentum and as the EU moves back to positive economic growth. Partially offsetting the generally positive outlook in the U.S. and Europe are concerns about China’s slowing economy. Chinese demand for imported hardwood pulp has recently started to show signs of softening, as growth in paper markets (both domestic and export) moderate and the renminbi weakens. Summed across major export markets, the outlook for Brazilian pulp exports is guardedly optimistic.

**Table 1: Announced New Pulp Projects for Brazil (million tonnes) 2014-2018**

Company	Capacity	Start-Up
Suzano	1.5	2014
Eldorado	0.2	2014
CMPC	1.3	2015
Klabin	1.5	2016
Fibria	1.5	2017
Lwarcel	0.8	2017
Veracel	1.5	2017
Eldorado	2.0	2017
Eco Brasil	1.5	2017/2018
Ribas Project	1.5	2017/2018
<b>Total</b>	<b>13.3</b>	

Sources: RISI and HTRG Research

While the prospects for global hardwood pulp demand are relatively restrained, the global supply of Eucalyptus market pulp is entering a period of major expansion. Hardwood pulp mills that have recently opened and are ramping-up production and projects that are scheduled to begin production by the end of 2014 represent 1.4 million tonnes of new capacity. These new facilities include the start-up of the new Suzano mill in Brazil and the Montes del Plata mill (Stora Enso and Arauco JV) in Uruguay. Looking forward to 2015 and 2016, an anticipated 3.7 million tonnes of additional capacity is expected over two years from greenfield projects by CMPC and Klabin in

**Chart 2: Eucalyptus Pulp Price Comes Under Pressure**



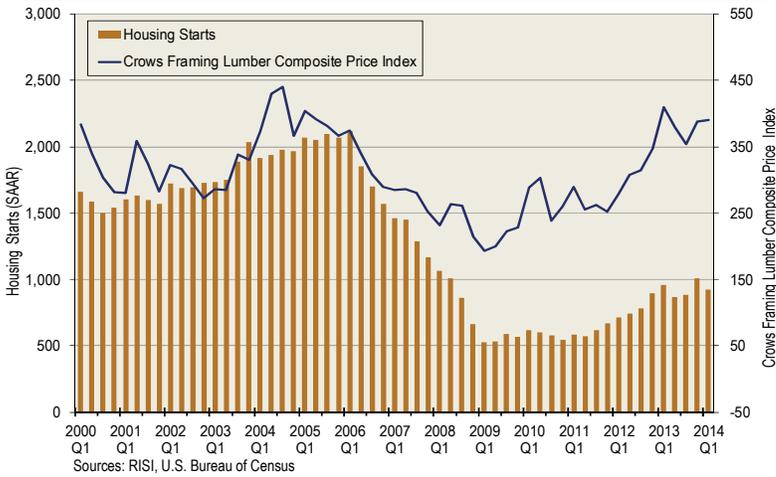
Brazil and APP in Indonesia. An overall estimate of additional hardwood capacity in just Brazil over the next five years is in the neighborhood of 13.0 million tonnes. (see Table 1.)

The major additions of new bleached hardwood pulp capacity coming on-line over the next three years will increase competition and place downward pressure on both hardwood market pulp and Eucalyptus pulpwood prices. The anticipated surge in supply is already exerting downward pressure on hardwood pulp prices, and has resulted in a marked divergence between softwood and hardwood market pulp prices. In March, the spread between the price of bleached Eucalyptus market pulp and Southern Bleached Softwood Pulp had widened to USD 82 per tonne after having been at parity from 2012:Q2 through 2013:Q2. To absorb the rising tide of hardwood pulpwood production in Brazil will require competitive pricing that will also keep a lid on Eucalyptus pulpwood prices.

The current set-back in the Brazilian economy does have a silver lining for the country’s pulp sector, the significant depreciation in the Brazilian real. Between July of 2011 and March 2014, the Brazilian real had depreciated by 32% relative to the USD (See Figure 4, page 4), providing a substantial boost to the competitive position of Brazilian pulp mills. The weaker real supports Brazil’s important pulp export markets and has the potential to offset a portion of the negative impacts tied to the economic

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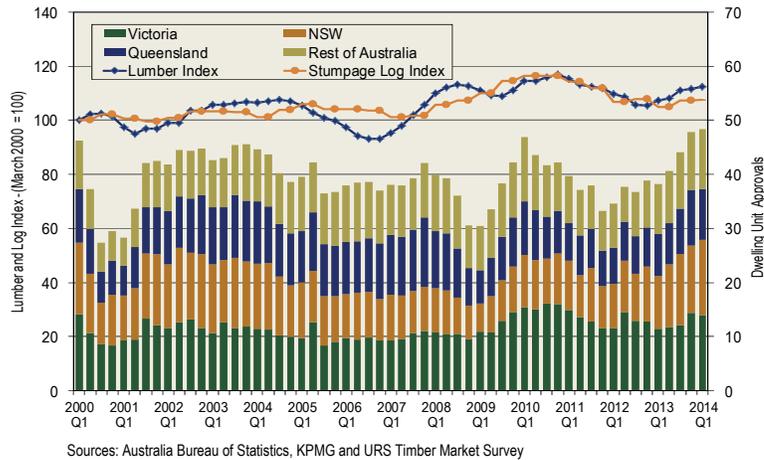
**Quarterly U.S. Housing Starts (1,000 units) and U.S. Softwood Lumber Composite Price Index (USD per MBF)**



**Figure 1. North American Softwood Lumber Prices and U.S. Housing Starts**

North American softwood lumber prices made only incremental gains in the first quarter of 2014, with the Crows Framing Lumber Composite Index edging up less than 1 percent compared to the previous quarter, and 5 percent lower than the first quarter of last year. Lumber prices were held in check by weaker demand conditions as severe winter weather negatively impacted the U.S. economy in general and residential construction activity in particular. U.S. housing starts dropped to an annual rate of 923,000 units (SAAR) in the first quarter, down 13 percent from 1,008,000 units in the final quarter of 2013.

**Quarterly Australian Dwelling Unit Approvals (1,000 units), Australian Softwood Lumber Composite Price Index and Softwood Stumpage Log Index**



**Figure 2. Australian Softwood Lumber, Timber Prices, Dwelling Unit Approvals**

In the first quarter of 2014, dwelling construction approvals rose 1 percent over the previous quarter, with the state of New South Wales (NSW) leading this quarter's approvals growth, gaining 12 percent over fourth quarter 2013. The pace of Australian residential construction continues at levels not seen since first quarter 2010. First quarter lumber prices reflect improved construction activity, with prices moving up 4.5 percent from first quarter last year. Pine log prices in Australia typically follow movements in lumber prices. Our estimate of first quarter log prices reflect a slight increase over fourth quarter prices and a 3.0 percent increase over log prices first quarter last year.

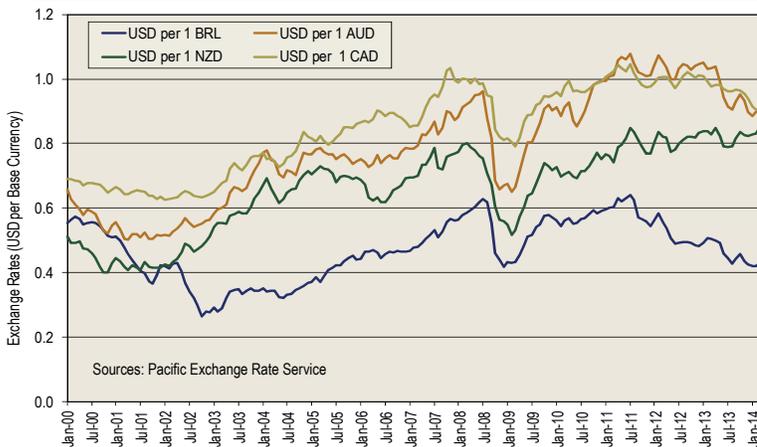
**Quarterly New Zealand softwood log export volume to China (million m3) and New Zealand radiata pine log import price (USD/m3 cif China)**



**Figure 3. New Zealand Log Exports**

In the first quarter, New Zealand's exports of pine sawlogs to China reverted to the usual seasonal pattern of reduced shipments in the first quarter during the Chinese New Year holidays. After hitting record volumes in the final quarter of 2013, New Zealand's log exports to China in the first quarter of 2014, dropped 26 percent, but were 6 percent above the volume shipped in the first quarter of 2013. The China import price for New Zealand radiata pine sawlogs continued to move higher first quarter, reaching a new quarterly high of US \$161 per cubic meter delivered in China, up 3 percent from the previous quarter. In addition to strong demand in China, New Zealand radiata pine sawlog prices have been supported by robust domestic demand for lumber as residential construction activity rebounded in New Zealand. In March, building consents issued were 89 percent higher than the bottom of the recent cycle in March 2011.

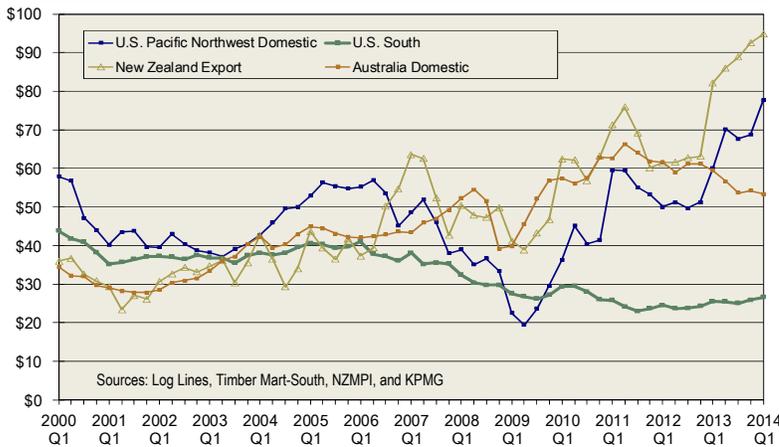
### Monthly exchange rates between USD and Commodity Currencies



**Figure 4. Exchange Rates**

The US dollar gained against the Canadian dollar again first quarter, settling at 0.90 USD per CAD. The Australian dollar and the Brazilian real rose in value from last quarter – increasing one and two percent, yet both currencies have lost considerable strength – at 12 and 15 percent – from first quarter of 2013. The New Zealand dollar continues to hold its value – as a strong export market position and a robust domestic economy buoy the kiwi to record highs.

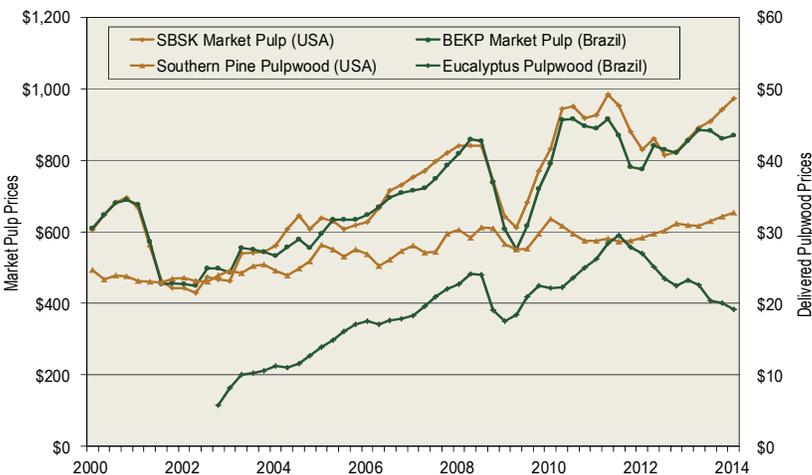
### Quarterly Average Regional Composite Prices for Softwood Sawtimber Stumpage (USD per m3)



**Figure 5. Regional Softwood Sawtimber Stumpage Prices**

Entering 2014, softwood stumpage prices continued to move higher across a broad range of markets, with the U.S. Pacific Northwest registering the strongest gains. Boosted by strong log exports to China, stumpage prices in the U.S. Pacific Northwest increased 13 percent over the previous quarter and were 29 percent higher than the same period in 2013. New Zealand softwood sawtimber stumpage prices increased another 2 percent to US\$95 per cubic meter first quarter, up 15 percent from a year ago. In the U.S. South, pine sawtimber stumpage prices continued to slowly gain ground, increasing 3 percent over the fourth quarter. Less exposed to Asian export opportunities, southern pine stumpage prices are just 4 percent higher than the first quarter of last year. In Australia, pine stumpage prices started to finally edge higher at the end of last year, and are expected to have made progress in Australia currency but edged lower in USD in the first quarter of 2014.

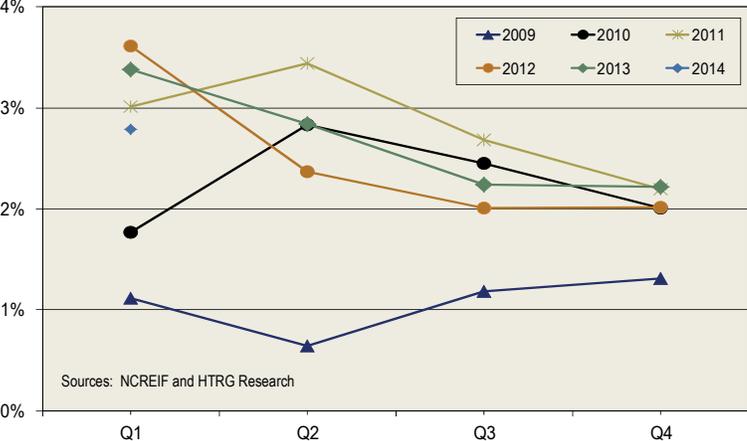
### Quarterly Prices for market pulp and fiber (USD per metric ton)



**Figure 6. Pulp and Pulpwood Prices, U.S. South and Brazil**

The spread between the price of softwood and hardwood market pulp continued to widen in the first quarter. U.S. southern bleached softwood kraft (SBSK) prices increased to \$973 per tonne, up 3 percent, while Brazilian eucalyptus kraft pulp (BEKP) prices edged up 1 percent to \$870 per tonne. Reflecting the movements in their respective pulp markets, Southern Pine pulpwood continued to trend higher, rising 2 percent in the first quarter, while Brazilian Eucalyptus dropped 5 percent from the previous quarter. Pulpwood prices in the U.S. South were supported by wet weather conditions which limited harvesting this past winter.

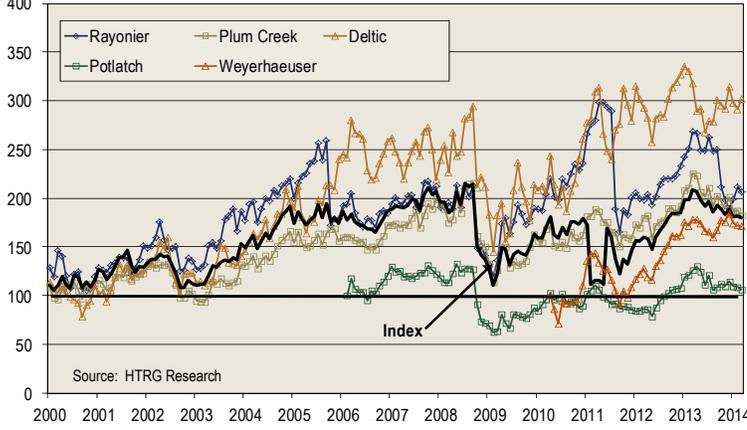
**U.S. Timberland Annualized Operating Cash Yields (percent per year)**



**Figure 7. U.S. Timberland Annualized Operating Cash Yields (percent per year)**

First quarter annualized cash yields for U.S. private timberland was 2.8 percent, down from the 3.6 percent yields of first quarter last year, but similar to first quarter yields in 2011 and a large step away from the lower yields witnessed in 2009 – 2010. Timberland in the Pacific Northwest reported yields at record levels for first quarter, while southern timberland cash yields were less than first quarter yields last year and in 2012, yet are approaching average historical yields for the region.

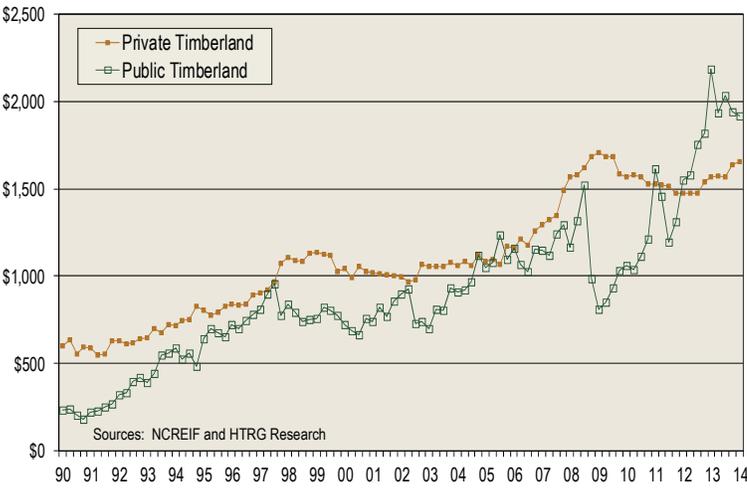
**Monthly Securitized Timberland Share Value (Indexed to 100 at start date)**



**Figure 8. Hancock Securitized Timberland Index**

The Hancock Securitized Timberland Index ended the quarter off three percent from last quarter and eleven percent from first quarter last year. All Timber REITs in the Index experienced a drop in share price first quarter compared to fourth quarter last year. The outlook for these timber-intensive public REITs remains positive as they are positioned to benefit from rising demand in the U.S. housing market.

**Quarterly U.S. South Timberland Values (\$ per acre)**



**Figure 9. Timberland Enterprise Value**

The spread between public and private southern timberland values narrowed first quarter. Timberland held in private ownership in the US South ticked up slightly first quarter, averaging \$1,657 per acre. Southern timberland held in public ownership fell to \$1,920 per acre, a \$22 per acre drop from fourth quarter values last year, to about the level of first quarter 2013.

headwinds expected in the remainder of 2014 and possibly into 2015.

Beyond the current rough patch in the Brazilian economy, the outlook for Brazilian Eucalyptus pulpwood appears solid. The current round of pulp capacity additions will substantially deepen markets in Brazil for Eucalyptus fiber as well as keep the Brazilian pulp sector at the forefront of operational efficiency. As Brazil's economy regains forward momentum and Brazil's middle class continues to grow, domestic pulp demand should also support growth in markets for Eucalyptus fiber. Over the medium-term, markets for Eucalyptus pulpwood in Brazil are likely to receive additional support from the expanding use of plantation-produced wood fiber for energy as industrial fuelwood used in the drying of agricultural products and in other industrial applications, and potentially for wood-pellets for export to Europe and Asia 

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## NOTES:

Figure 1. The source for the U.S. Housing Starts is U.S. Bureau of Census. The Housing Starts data includes Single-family and Multi-family starts. Crows Framing Lumber Composite Index data is RISI.

Figure 2. Quarterly Australian Dwelling Unit Approvals is published by the Australian Bureau of Statistics. The Lumber Index is published by URS Timber Market Survey using Softwood Structural lumber prices (Blended Price - 60percent MGP 10 90x35x4800, 40percent MGP 10 70x35x4800). Log Price Index is calculated using the (APLPI) Radiata Pine Domestic Stumpage prices. The log price is an average of Intermediate and Medium sawlog prices

Figure 3. Quarterly New Zealand softwood log export volume to China and China Import prices are published by the RISI International Timber Service.

Figure 4. Monthly average Exchange Rates are published by the Pacific Exchange Rate Service.

Figure 5. Quarterly Softwood Sawtimber Stumpage Prices for the U.S. Pacific Northwest is reported in Loglines published by RISI. The weighted index is made up of 50percent Domestic Douglas-fir (47percent #2 and 53percent #3 Sawmill sorts) and 50percent Whitewoods (47percent #2 and 53percent #3 Sawmill sorts). U.S. South prices are published by Timber Mart-South (60percent Southern Pine Sawtimber and 40percent Chip-n-Saw). Australian domestic prices are calculated using the KPMG Australian Pine Log Price Index (APLPI) Radiata Pine Domestic Stumpage prices. The log price is an average of Intermediate and Medium sawlog prices converted to USD/m3. New Zealand radiata pine export log prices are a blend of A,K and J sort logs published by New Zealand Ministry of Primary Industries converted to USD.

Figure 6. Quarterly Market Pulp prices are published by Hawkins Wright. U.S. Southern Pine Pulpwood prices are published by Timber Mart-South. Brazil Eucalyptus Pulpwood prices are published by STCP Engenharia de Projetos Ltda.

Figure 7. Annualized Operating Cash Yields are published by National Council of Real Estate Investment Fiduciaries (NCREIF). Yields are calculated using 60percent U.S. South and 40percent U.S. West.

Figure 8. The Hancock Securitized Timberland Index (HSTI) uses a base-weighted aggregate methodology (similar to that used to construct the S&P 500) to calculate a market capitalization-weighted value for five publicly traded timber-intensive forest products companies. Base weights were adjusted for the emergence of new companies or at the beginning of each year. Dividends are not reinvested. The companies included in the HSTI have no investment relationship with Hancock Timber Resource Group.

Figure 9. Public equity values are derived from our Timberland Enterprise Value per Southern Equivalent Acre (TEV/SEA) calculation for five timber-intensive publicly traded companies as compared to southern timberland values per acre calculated from the NCREIF database. TEV is a quarterly estimate based on total enterprise value (total market equity + book value debt) less estimated value of processing facilities, other non-timber assets and non-enterprise working capital. SEA uses regional NCREIF \$/acre values to translate a company's timberland holdings in various regions to the area of southern timberland that would have an equivalent market value.

References to expected investment performance in this newsletter are based on historical information and are based on managements projections. Potential for profit as well as for loss exists.