



Timberland Investor Report

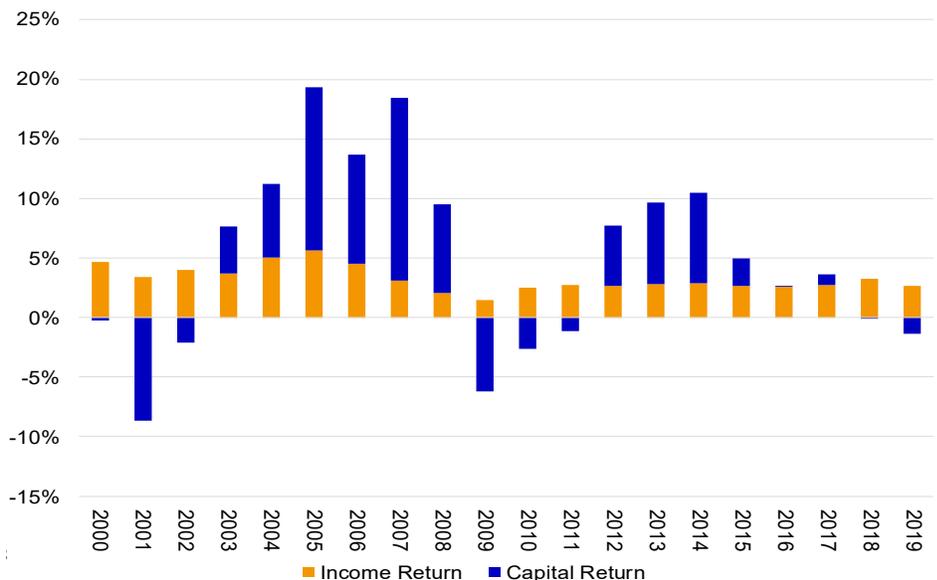
The U.S. Timberland Property Index Retreated in 2019, with Significant Variation Across Regions

U.S. private timberland investment performance in 2019 reflected a wide range of returns specific to geographic region. NCREIF reported the U.S. Timberland Index slipped to a market value-weighted 1.3 percent in 2019, a decrease of 191 bps from 2018. Across regions within the U.S., annual returns ranged from -2.4 percent in the Northwest to +6.7 percent in the Lake States.

As in prior years, we devote our fourth quarter issue of the Timberland Investor Report to a review of NCREIF's year-end report of investment performance of U.S. private timberland properties. The NCREIF (National Council of Real Estate Investment Fiduciaries) Timberland Property Index¹ (TPI), tracks returns of institutional investments in U.S. timberland properties.

U.S. Timberland Performance Slipped to 1.3 Percent in 2019

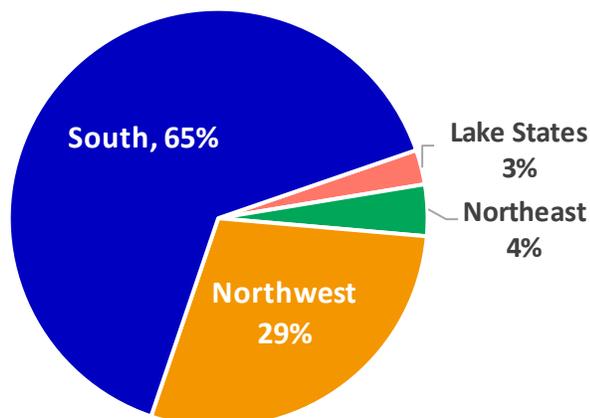
Chart 1. NCREIF U.S. Timberland Property Index, Annual Income and Appreciation, as of year-ending December 31



¹Hancock Timber Resource Group is a participating member in the NCREIF Timberland Property Index. The Index requires participating managers to report all eligible properties to the Index. Usage of this data is not an offer to buy or sell properties.

Timberland Properties in the Northwest and South Comprise over 90 percent of the U.S. NCREIF Timberland Property Index

Chart 2. Regional Share of the Timberland Property Index by Value (as of December 2019)



Source: NCREIF January 2020

In 2019, the TPI incorporated data from 451 timberland properties with a combined area of 12.3 million acres across the U.S., and with a combined market value of \$23.2 billion.

In calendar year 2019, the TPI posted a total return of 1.3 percent. The 2019 total return was the lowest annual return since 2010, and was 3.2 percent below the average annual return level of 4.5 percent over the past ten years.

NCREIF separates total returns into two components: net operating income (EBITDDA²) and capital appreciation. In 2019, U.S. net operating income slipped to 2.7 percent, which was down from 3.2 percent in 2018, and well below the average income over the past ten years (3.9 percent). Net operating income for U.S. timberlands in 2019 was

Correction in Western Timberland Returns Weighs Heavily on 2019 U.S. Timberland Returns

Table 1. Regional NCREIF Timberland Component Returns (as of December 31)

	South	Northwest	Northeast	Lake States	U.S.
EBITDDA	2.84%	2.52%	1.97%	2.14%	2.68%
bps change from 2018	27	-237	-295	31	-56.1
Capital	0.12%	-4.80%	-3.89%	4.10%	-1.36%
bps change from 2018	181	-895	-492	719	-132.5
Total	2.97%	-2.38%	-1.97%	6.31%	1.30%
bps change from 2018	213	-1157	-796	762	-191.2

Source: NCREIF, January 2020

² EBITDDA: Earnings Before Interest, Taxes and Depreciation, Depletion and Amortization

negatively impacted by a major downward correction in lumber and wood panel prices compared to 2018, a period when the prices for wood building products surged. Weaker pricing for lumber and wood panels was reflected in softer timber prices (particularly in the Northwest) and an associated decline in timberland net operating income.

Annual third-party appraisals of timberland market values are required of all timberland properties included in the NCREIF Timberland Index, forming the basis of the TPI capital appreciation component. In 2019, the combined market value of U.S. timberland properties in the TPI declined by -1.7 percent, after holding nearly steady in the previous year (-0.03 percent in 2018). See Chart 1, page 1 NCREIF U.S. Timberland Property Index, Annual Income and Appreciation.

NCREIF timberland performance is reported separately for four regions within the U.S. (Lake States, Northeast, South and Northwest). The U.S. TPI is heavily weighted toward pine and mixed hardwood plantations in the South (representing 65 percent of the Index by market value). Northwestern timberland properties represent 29 percent of the U.S. Index by value and the remaining 7 percent of the U.S. Index value is split between the high-value hardwoods and mixed softwood/hardwood timberland in the Northeast (4 percent) and the Lake States (3 percent). See Chart 2, this page, Regional Share of the Timberland Property Index by Value.

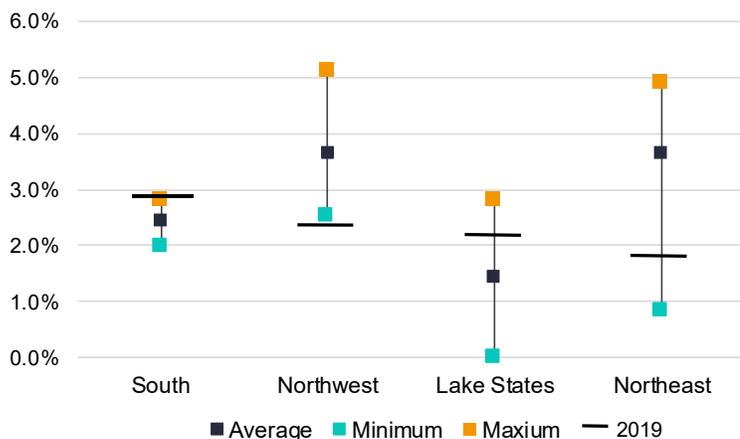
Timberland in the U.S. Northwest, which contributes close to one third of the market value of the overall TPI, experienced a -2.4 percent total return in 2019, with declines in both income and capital appreciation. The setback in returns in the Northwest region was the dominant factor for the retreat in U.S. TPI performance. Driving the decline in Northwest timberland performance was a pronounced downward correction in Northwest timber prices, which fell close to 30 percent year-over-year in 2019 (See Figure 5, page 6 Regional Softwood Sawtimber Stumpage Prices). As a result, net operating income in the U.S. Northwest fell to 2.5 percent in 2019, a 237-bp drop from 2018, and the Northwest's lowest income return since 2009.

Capital appreciation on timberland property investments in the Northwest came under significant downward pressure in 2019 as appraised market values in the region fell -4.8 percent in 2019, a 895-bp drop from the previous year.

Appraisers were challenged by the limited number of scale transactions that occurred in the Northwest in 2019, hampering the ability for benchmarking valuations based on comparable sales. This may have amplified the

U.S. Timberland Operating Income in 2019 Reaches 10 year Low in the Northwest and 10 year High in the South

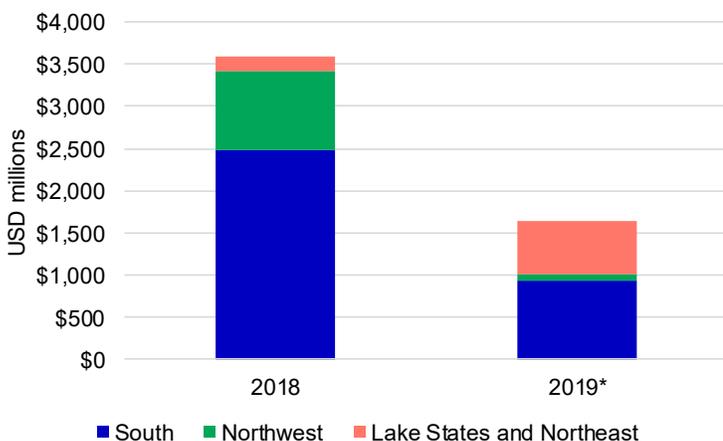
Chart 3. Ten Year Average NCREIF Timberland EBITDDA Returns (as of December 31)



Source: NCREIF January 2020, HNRG Research

A Quiet Year for U.S. Timberland Transactions

Chart 4. U.S. Timberland Transaction Value by Region



Source: Fastmarkets RISI, April 2019 & February 2020, HNRG Research. *2019 is preliminary data

Implications of declining regional timber prices on valuations.

In 2019, private timberland in the U.S. South fared significantly better than properties in the Northwest, with southern timberland achieving a 2.97 percent total return. Net income returns for 2019 in the South reached 2.8 percent, the highest income return in the region over the past ten years. See *Chart 3, this page, Ten Year Average NCREIF Timberland EBITDDA Returns*. Capital

appreciation during 2019 for southern timberland within the TPI was nearly flat (0.12percent), which compared favorably with the declines registered in the Northwest. The more positive timberland return performance for southern timberland properties compared to timberland properties in the Northwest resulted from the relative stability of southern pine sawtimber prices, which were bolstered by the expansion in the number of regional lumber mills, and the increase in the region's mill capacity.

Timberland returns in the Lake States experienced a healthy upward adjustment, rising to 6.3 percent in 2019, a 762-bp improvement over 2018. Operating income, at 2.1 percent, was above average for the region (average income over the past ten years is 1.4 percent). Regional total returns were further lifted by positive timberland appraisals, which increased property values in the Lake States. Timberland properties in the Lake States within the TPI appreciated by 4.1 percent, a 719-bp increase over 2018 results.

As U.S. Lake States timberlands contribute a small percentage by market value to the total TPI (3 percent in 2019), Lake States' healthy timberland returns in 2019 provided only an incremental boost to the lackluster overall performance of U.S. timberland as reported by NCREIF's TPI.

U.S. timberland returns reflected sector-wide market conditions, including: the large price correction experienced in North American wood products; the retreat in Northwest timber prices combined with a slight increase in southern timber prices; and a pronounced slow-down in the volume of timberland transactions in the Northwest and South—the two regions which heavily influence the market value of the TPI. In 2018, private timberland traded by financial investors in the U.S. was valued at about \$3.6 billion.³ In 2019, preliminary estimates put transactions at about half that amount.⁴ In contrast, the value of timberland transactions in the Lake States and Northeast during 2019 were well ahead of 2018. See *Chart 4, this page, Timberland Transaction Value by Region*.

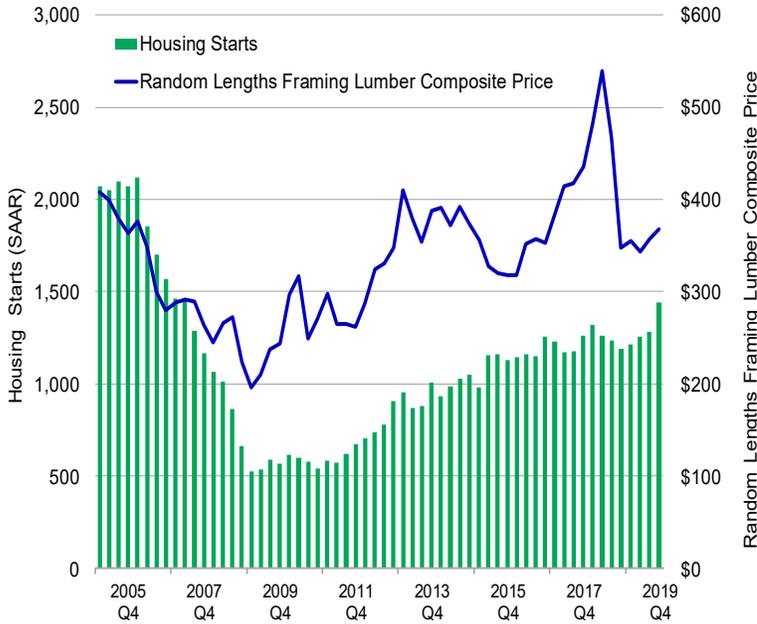
³ Fastmarkets RISI April 2019.
⁴ Fastmarkets RISI February 2020

Timberland Market Indicators

Data as of 12/31/2019

Lumber Prices Move Higher As Housing Starts Strengthen

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

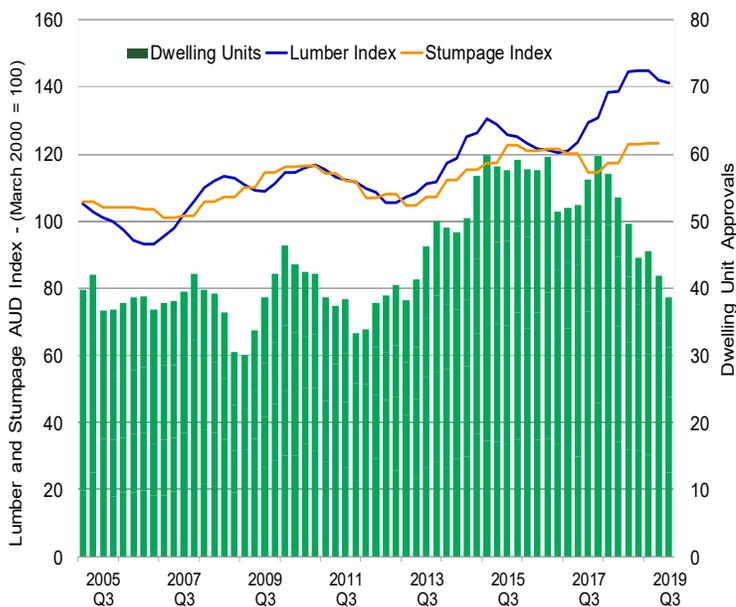


U.S. housing starts rose strongly in the final quarter of 2019, increasing 12 percent from the previous quarter to 1.44 million units (SAAR). Fourth quarter total housing starts were 22 percent higher than a year earlier and the highest quarterly level since the third quarter of 2007. The surprisingly robust housing start statistics at the end of 2019 received a boost from mild weather conditions that extended the building season in combination with a large seasonal adjustment factor for December. The Random Lengths Composite Index gained 3 percent over the previous quarter and was up 6 percent compared to the same period a year earlier. Lumber prices were supported in the fourth quarter by healthy late-season construction demand, and production curtailments and mill closures in B.C. A moderating influence on softwood lumber prices in the fourth quarter was a surge in imports from Europe.

Sources: Random Lengths Lumber Report December 2019, U.S. Census Bureau December 2019

Australia Dwelling Approvals Step Down Again

Figure 2: Australian Softwood Lumber AUD Price, Timber AUD Price, and Dwelling Unit Approvals (1,000 units)



In the fourth quarter of 2019, Australian dwelling approvals (a key indicator of residential construction activity) continued to decrease, falling by 8 percent from last quarter and were down 35 percent from the cyclical peak set in the final quarter of 2017. The slow-down in Australia's housing activity reflects an easing in the forward momentum in the overall Australian economy. Australian structural lumber prices decreased slightly from last quarter but were still close to the all-time peak reached in the fourth quarter of 2018. Australian lumber prices at their current elevated level are vulnerable to a downward price correction, given the sustained retreat in housing activity. Australian sawlog stumpage prices are normally reported biannually, and the data reported as of June 2019 was flat with the previous quarter.

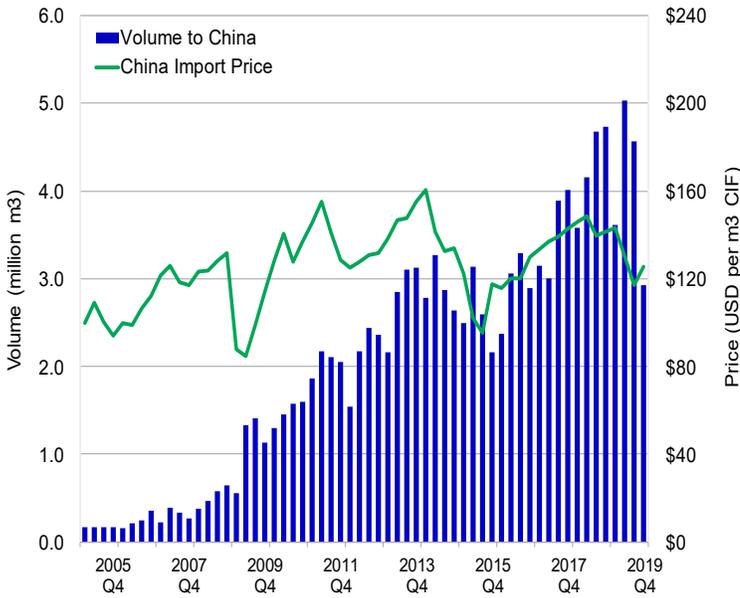
Sources: Australia Bureau of Statistics December 2019, KPMG June 2019, Indufor Timber Market Survey December 2019

Timberland Market Indicators (continued)

Data as of 12/31/2019

New Zealand Log Export Volumes to China Fall Sharply

Figure 3: Quarterly New Zealand Softwood Log Export Volume to China (million m³) and Price in China (USD per m³ CIF)



Source: Wood Markets International Inc. January 2020

In the fourth quarter of 2019, New Zealand log export volumes plummeted, dropping 36 percent from the third quarter. At 2.9 million cubic meters, New Zealand sawlog exports to China were 19 percent below the volume shipped in the fourth quarter of 2018, and were the lowest quarterly shipments to China since the fourth quarter of 2016. Despite the dramatic drop in the volume of sawlogs exported, the price of New Zealand sawlogs delivered to China was relatively resilient, rising 7 percent on a U.S. Dollar basis compared to the third quarter, although down 12 percent year-over-year. Prospects for New Zealand sawlog exports and prices in early 2020 are grim. The disruption in transportation logistics and mill operations due to the coronavirus outbreak and quarantines in China will negatively impact all commodity markets. In addition, the impacts associated with efforts to contain the coronavirus epidemic will exacerbate the slowdown in China's economy and construction sector, moderating the demand for sawlog import volumes.

U.S. Dollar Eases

Figure 4: Quarterly Exchange Rates Between USD and Commodity Currencies



Source: Macrobond December 2019

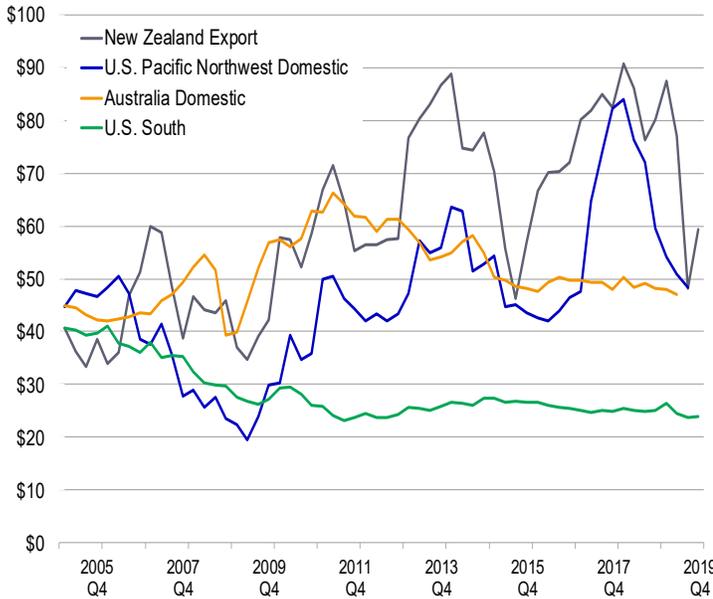
The U.S. Dollar eased against most competing currencies in the fourth quarter of 2019, responding to the U.S. Federal Reserve's three consecutive 25 basis point cuts in the Fed funds rate in August, September and October. The move to a more accommodative U.S. monetary policy leading up to the fourth quarter, coincided with some improvement in the outlook for commodity markets, providing added support to the currencies of a number of export-oriented countries. Compared to the prior quarter, the U.S. Dollar eased: 4 percent compared to the Australian Dollar; 2 percent relative to the Canadian Dollar; 8 percent relative to the New Zealand Dollar; and 4 percent relative to the Brazilian Real. The one exception to these gains relative to the U.S. Dollar in the final quarter of 2019 was the Chilean Peso, which slipped 1 percent against the U.S. Dollar from the previous quarter. Weakness in the Chilean Peso resulted from the wide-spread social protests that occurred throughout Chile in the final quarter of 2019.

Timberland Market Indicators (continued)

Data as of 12/31/2019

Softwood Sawtimber Prices in U.S. Dollars Registered Gains

Figure 5: Regional Softwood Sawtimber Stumpage Prices (USD per m³)

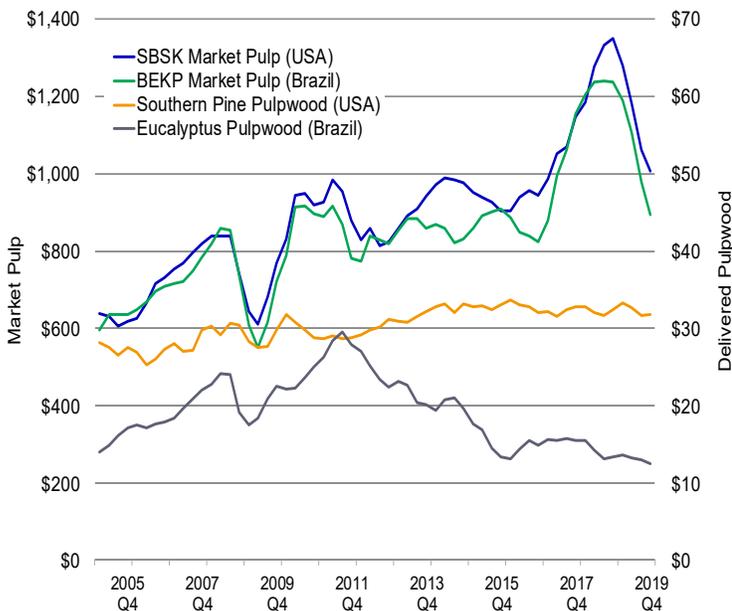


Global softwood sawtimber stumpage prices on a U.S. Dollar denominated basis found support in the fourth quarter of 2019 and registered gains. Partially reversing the sharp declines experienced in the previous two quarters, New Zealand softwood sawtimber prices in the fourth quarter increased 23 percent from the previous quarter but were still 26 percent lower compared to the final quarter of 2018. New Zealand sawtimber prices at the end of 2019 benefitted from a downward correction in ocean freight rates. U.S. Pacific Northwest sawtimber prices made a modest gain of 2 percent from the previous quarter, reflecting a pick-up of demand and prices at the region's lumber and plywood mills, but Pacific Northwest sawtimber prices in the final quarter were still 17 percent below the same period a year earlier. In the U.S. South, southern pine stumpage prices stabilized at the end of the year, edging up less than 1 percent from the third quarter, benefitting from improving lumber and plywood markets. The most recent release of Australian pine stumpage prices is for June, 2019, which reflected weakened US Dollar prices.

Sources: Log Lines January 2020, Timber Mart-South January 2020, NZMPI and Agrifax January 2020, KPMG June 2019

Market Pulp Prices Continue Downward, Pulpwood Prices Mixed

Figure 6: Quarterly Prices for Market Pulp and Delivered Pulpwood (USD per metric ton)



Prices for both Bleached Eucalyptus Kraft Pulp (BEKP) and Southern Bleached Softwood Kraft (SBSK) stayed on a downward path in the final quarter of 2019. Compared to the previous quarter, BEKP slipped another 9 percent and SBSK was down 5 percent. In the fourth quarter, BEKP was down 28 percent from the same period a year earlier, while SBSK had declined by 25 percent over the same period. Slower growth in China's overall economy had contributed to a build-up in pulp inventories and put downward pressure on global pulp prices. The performance of pulpwood prices was mixed in the fourth quarter. Pine pulpwood delivered prices in the U.S. South increased incrementally, 0.3 percent, supported by wet weather in the region. Brazilian Eucalyptus delivered pulpwood prices moved upward by 4 percent from the previous quarter.

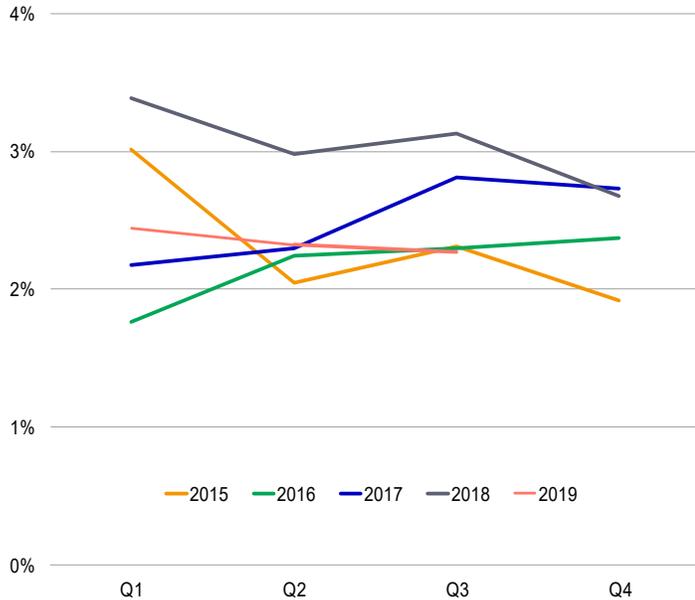
Sources: Hawkins Wright September 2019, Timber Mart-South September 2019, STCP September 2019

Timberland Market Indicators (continued)

Data as of 12/31/2019

Cash Yields Down Again

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

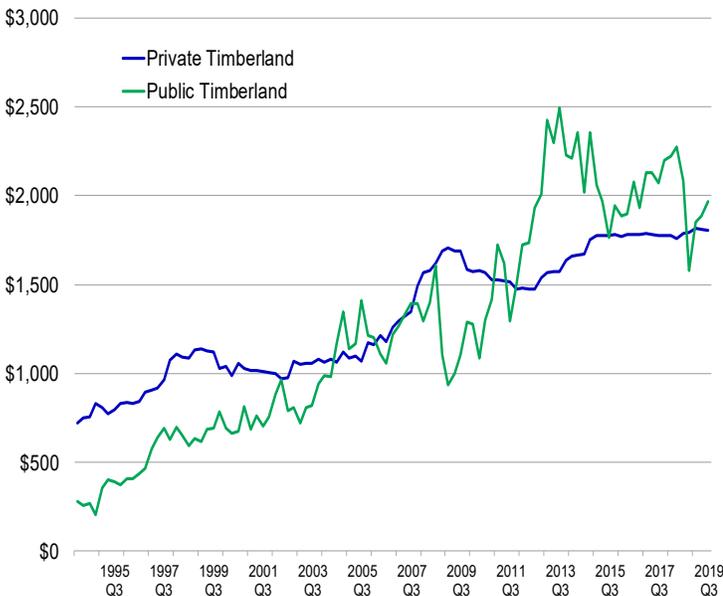


Sources: NCREIF January 2020, HNRG January 2020

In the fourth quarter of 2019, timberland cash yields continued downward for the fifth consecutive quarter, reaching an annualized rate of 2.0 percent, the lowest quarterly cash yield since the first quarter of 2016. In 2019, the deep downward correction in timber prices in the U.S. West was the principal factor keeping U.S. timberland cash yields on a downward track.

Private Timberland Values Remain Near Last Quarter Levels, Public Timberland Values Up on Stock Gains

Figure 8: Quarterly U.S. South Timberland Values (USD per acre)



Sources: NCREIF January 2020, HNRG January 2020

In the fourth quarter of 2019, the value of privately held timberland in the U.S. South increased slightly from last quarter, averaging \$1,810 per acre, 0.25 percent above southern private timberland values a year ago. Public timberland values, measured by the Timberland Enterprise Value per Southern Equivalent Acre (TEV/SEA), increased by 2.5 percent from the third quarter. Despite a major sale of Michigan timberland by Weyerhaeuser, their western and southern timberland acreage increased which kept their total timberland acreage changes to a minimal. The primary driver increasing the TEV/SEA came from the continued recovery throughout 2019 of stock prices among the companies tracked, which are now back to levels of mid-October of last year.

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HNRG Research Team

Court Washburn, Ph.D
Senior Managing Director,
Chief Investment Officer
cwashburn@hnrgr.com

Mary Ellen Aronow
Director, Forest Economics
maronow@hnrgr.com

Elizabeth Shestakova
Economic Research Analyst
eshestakova@hnrgr.com

Keith Balter
Managing Director,
Economic Research
kbalter@hnrgr.com

Daniel V. Serna
Associate Director and Senior
Agricultural Economist
dserna@hnrgr.com

Weiyi Zhang, Ph.D
Natural Resource Economist
wzhang@hnrgr.com

About Hancock Natural Resource Group

Hancock Natural Resource Group, Inc. is a registered investment adviser and part of Manulife Investment Management's Private Markets platform. We specialize in global farmland and timberland portfolio development and management on behalf of our investors worldwide. Our timber division manages approximately 6 million acres of timberland across the United States and in Canada, New Zealand, Australia, and Chile. Our agricultural investment group oversees approximately 300,000 acres of prime farmland in major agricultural regions of the United States and in Canada and Australia.

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Manulife Investment Management is the global wealth and asset management segment of Manulife Financial Corporation. We draw on more than 150 years of financial stewardship to partner with clients across our institutional, retail, and retirement businesses globally. Our specialist approach to money management includes the highly differentiated strategies of our fixed-income, specialized equity, multi-asset solutions, and private markets teams.

Notes Timberland Market Indicators

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. Random Lengths Lumber Report is used for lumber prices.

Figure 2. Quarterly Australian Dwelling Unit Approvals is published by the Australian Bureau of Statistics. The Lumber Index is published by Indufor Timber Market Survey using Softwood Structural lumber prices (Blended Price - 60 percent MGP 10 90x35x4800, 40 percent 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 International Wood Markets Group Inc.

Figure 4. Monthly average Exchange Rates are from Macrobond.

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 50 percent Domestic Douglas-fir (47 percent #2 and 53 percent #3 Sawmill sorts) and 50 percent Whitewoods (47 percent #2 and 53 percent #3 Sawmill sorts). U.S. South prices are published by Timber Mart-South (60 percent Southern Pine Sawtimber and 40 percent 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 Agri-Fax A and K log sort prices and A,K and J log prices 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 60 percent U.S. South and 40 percent U.S. West.

Figure 8. 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.

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