



A Manulife Investment Management Company

Brazil Timberland Flash Report

Brazil Timberland: Resilience Under Uncertainty

As the COVID-19 pandemic surges across the globe, financial markets have reacted dramatically. Major stock markets around the world have suffered historical losses in Q1 2020, with the DJIA ending Q1 down 23%, Japan's Nikkei down 20%, German's DAX down 25%, and Brazil's IBrX-50 down 36%^{1, 2}. The spread of the coronavirus in South America has lagged in North America and Europe, only surfacing as a major threat in late Q1. With high levels of uncertainty continuing to surround the possible trajectory and impacts of the COVID-19 outbreak in Brazil and the rest of South America, investors are gaining a new appreciation of safe-harbor assets. Unpredictable shocks to the system, like the current COVID-19 outbreak, highlight the potential benefits of real assets such as timberland, which can provide greater resilience and lower return variance to an overall portfolio.

Timberland is a long-term asset with a strong historical performance record and low-to-moderate variance in returns, providing institutional investors with favorable diversification benefits. In this study, Brazilian timberland investment returns are represented by the John Hancock Timber Index (JHTLI) composite for timberland investments in Brazil, as actual historical timberland performance for Brazilian timberland is lacking. The JHTLI for Brazil is formulated as a function of current and past timber prices combined with a measure of the income rate appropriate for timberland investments in Brazil. The Brazil JHTLI follows the methodology in the original U.S. JHTLI, a proprietary model developed by HNRG³.

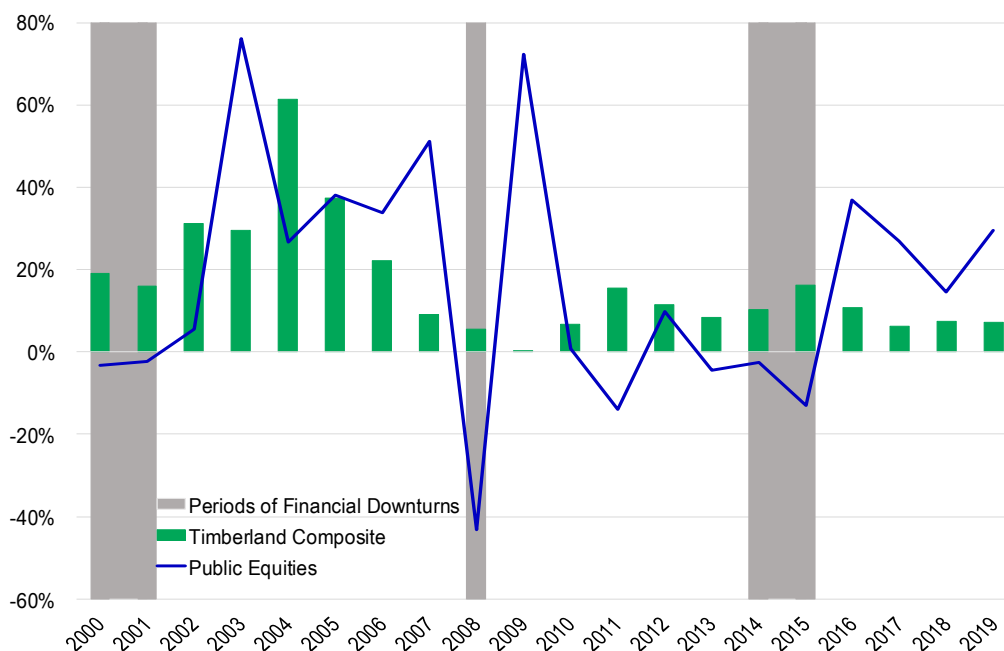
¹CNBC, March 31, 2020. <https://www.cnbc.com/2020/03/31/stock-market-today-live.html>

²Yahoo Finance, March 31, 2020 <https://finance.yahoo.com/quote/%5EIBX50/history?period1=1577836800&period2=1585612800&interval=1d&filter=history&frequency=1d>

³HNRG, Research Note N-03-3, 2003, https://htrg.com/wp-content/uploads/sites/2/Research-Note_2003_Historical-Returns-for-Timberland_Estimates-of-Risk-and-Return-for-Timberland-Investments-in-US-British-Columbia-and-New-Zealand.pdf

Brazil Timberland Delivered Positive Annual Returns Historically while Stock Markets Experienced Pronounced Swings

Chart 1. Average annual percentage returns for IBrX-50 Index and Brazil JHTLI Composite in BRL (2000-2019)



Source: Macrobond, March 2020, FAO January 2020, HNRG Research March 2020

Note: The Brazil JHTLI Composite is a volume weighted index of JHTLI Brazil Eucalyptus and JHTLI Brazil Pine

The JHTLI for Brazil includes two separate indices for returns on Eucalyptus and Pine timberland in Brazil, as they represent two distinct forest revenue sources. The two indices are weighted by historical production volumes to generate a Brazil JHTLI composite index.

This analysis focuses on periods when Brazil experienced exogenous shocks that triggered significant financial volatility and provides a comparison of the returns on Brazilian timberland investments with public equities and Brazilian fixed-income assets. Chart 1 displays historical returns for Brazilian timberland investments compared to public equities in Brazil from 2000 to 2019. Timberland investments (represented by the Brazil JHTLI composite) showed positive total return performance in each of the past 20 years, while Brazilian stocks (represented by IBrX-50 Index⁴) showed a higher degree of responsiveness to exogenous economic, financial, and political factors, resulting in more pronounced volatility.

From 2000 to 2019, public equities experienced negative annual returns in three periods of international or domestic economic recessions (the shaded areas in Chart 1), i.e. 2000-2001, 2008 and 2014-2015. In the first period, 2000-2001, the IBrX-50 declined 5.4% cumulatively over the two-year period, responding to the “dot-com” bust in 2000 and the 9/11 terrorist attacks in the U.S. the following year, which both had wide international repercussions. In 2008, the Global Financial Crisis led to a 43.1% drop in the IBrX-50 index. Lastly, during 2014-2015, Brazilian stock markets shrank by 15.4% cumulatively over the two-year period, as Brazil experienced a series of major political scandals and dislocations that were accompanied by one of the worst economic recessions in the country’s history.

Chart 2 looks specifically at these three periods of financial and economic dislocation and compares the annual returns for the IBrX-50, Brazil government treasury yields⁵, and the Brazil JHTLI composite. In all three periods, timberland delivered positive returns.

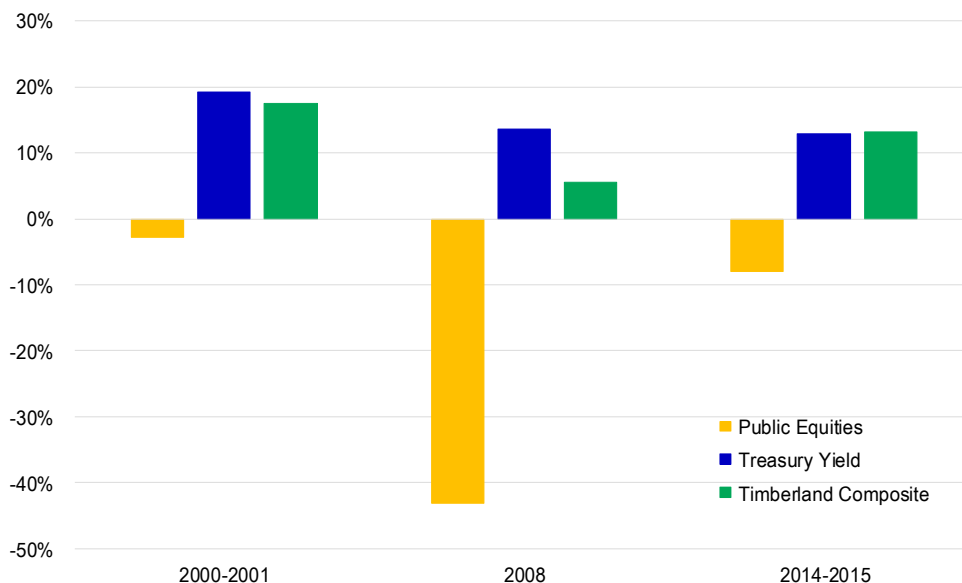
During 2000-2001, investments in Brazilian timberland, as estimated by the Brazil JHTLI composite, generated average annual returns of 17.5%. In the early 2000s, the Brazilian Real underwent a period of

⁴The IBrX-50 is a weighted average of the 50 most actively traded and best representative stocks of the Brazilian stock market, and is widely treated as a good proxy for the Brazil stock markets performance

⁵International Monetary Fund, Effective yield on Letras do Tesouro Nacional (LTN) of 31 days or longer, March 31, 2020. retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/INTGSTBMR193N>

Timberland Remained Resilient when Stock Markets Tumbled

Chart 2. Average annual returns for IBrX-50, Brazil JHTLI composite and Brazil government treasury yields in 2000-2001, 2008 and 2014-2015 .



Source: Macrobond, March 2020, International Monetary Fund, March 2020, FAO January 2020, HNRG Research March 2020
Note: The Brazil JHTLI Composite is a volume weighted Brazil timberland index of JHTLI Brazil Eucalyptus and JHTLI Brazil Pine

depreciation, while Brazilian timberland returns benefited from the combination of rising domestic demand for timber and surging offshore demand for forest products, which supported expanding manufacturing and export activities in Brazil with increasing shares of export market shares in Asia, North America and Europe. In comparison, the stock markets generated an average annual return of -2.8% on the IBrX-50, as the impacts of the “dot-com” recession in 2000 and the 9/11 terrorist attacks in 2001 rippled across the globe. In this period of global financial and political disruption, yields on Brazilian treasuries climbed to an average 19.3%, needing to attract foreign investment capital to the Brazilian economy.

During the 2008 Global Financial Crisis, the tightening international liquidity situation and depreciating local currency triggered a sharp correction in Brazil’s stock markets, which lost 43.1% in 2008. In comparison, although not matching the returns on government treasuries (13.7%), timberland generated a positive 5.5% annual return in a year of global economic crisis, supported by the continued growth in exports of market pulp to China.

During 2014-2015, the slow-down of the Chinese economy put downward pressures on a range of internationally traded commodities, many of which are key Brazilian exports and contributed to the country’s economic growth following the Global Financial Crisis. The weakened economic conditions in Brazil were exacerbated by the political turmoil, eventually dragging the country into a two-year long recession. Stock markets lost 8.0% per year during 2014-2015. During this economic downturn, inflation and interest rates remained elevated, which kept government treasury yields high, averaging 12.8%. Despite the economic and political chaos, timberland continued to generate positive returns, averaging 13.2% per year during 2014-2015. The demand for wood products and pulp, especially exports of Eucalyptus market pulp (which is traded in U.S. dollars), continued to grow and supported healthy returns for Brazilian timberland investments.

Global adversities, such as the COVID-19 pandemic, add massive uncertainty and instability to the investment landscape, which can translate to increased volatility and compromised return performance for individual portfolios. Timberland investments could help to insulate investors from exogenous shocks to the economic system and the financial environment. Based on this analysis, the addition of timberland assets to a diversified portfolio could bring greater consistency and resilience to a portfolio’s return profile.

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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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