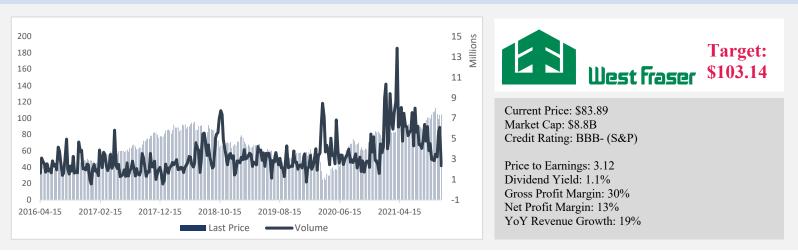
WEST FRASER TIMBER (NYSE:WFG)

Equity Research Report Published: December 3rd, 2021



INVESTMENT THESIS

Competent industry leader with great profit potential:

West Fraser Timber is a leader in the forestry industry with access to Canadian, US, and international markets via their North American mills. Due to the nature of their operations, the company is not impeded by the 2018 US tariffs but still capitalizes on scale and scope efficiencies of their diverse market access. These efficiencies are captured in their high profitability margins relative to peers. Additionally, the recent acquisition of Norbord positioned Timber as the world's largest producer of a distinct business line, strand board.

Opportune time to invest in the lumber industry:

In May 2021, lumber prices skyrocketed to a high of \$1,600 per 1,000 board feet. This temporarily suspended home renovations. Lumber prices then dropped to \$536 for 1,000 board feet mid-July to compensate for this lessened consumer demand. This restimulated consumer interest and should lead to a market correction in lumber pricing moving forward. Additionally, construction operations were stalled with pandemic-related work site regulations. As a key input to construction, the demand for wood products will increase with an influx of housing starts and an industrial boom. This increase in demand and paired higher chargeable prices will allow Timber to reap the benefits on their bottom line.

Attractive positioning in the sustainability space:

Timber is well positioned in the sustainability space. They are focused on reducing environmental impact and capitalizing on shifting consumer demand to favour environmentally friendly product alternatives. The company is accredited with certifications and licenses across internal operations and their supply chain. Timber limits waste production by utilizing 95% of log product including residuals and bioproducts. The company produces bioenergy via their pulp products which supports the transition to renewable energy. Timber consistently invests in green retrofits to reduced GHG emissions. These actions contribute to a greater reputation, access to sustainable markets, and improves operational efficiencies. Additionally, it positions the company ahead of competitors in green transitioning to meet future legal and regulatory requirements.

Strong governance controls with a well-diversified and largely independent board of directors:

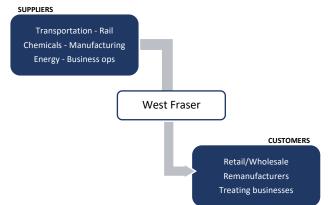
Timber exhibits a strong and diverse board of directors. The company's board of directors is larger than industry peers and yields greater gender diversity. Timber has also steadily increased the percentage of their board that are independent. These elements encourage diversity of thought and proactive risk management. Diverse perspectives are especially pertinent when considering issues that impact other stakeholders such as the environment and indigenous communities that are local to the areas in which they operate. Timber's strong governance controls are compensated with improved external relationships, reduced bias, and better risk management practices.

COMPANY OVERVIEW

West Fraser Timber (NYSE: WFG) is a producer and distributor of diversified wood products, headquartered in Vancouver, British Columbia. Timber's offerings span lumber, treated wood products, pulp, papers, woodchips, and other residuals and renewables. The company was established in 1955 and first went public in 1986. Timber's growth is attributed to the acquisition of almost 33 sawmill facilities in Canada (12) and The United States (21). Additionally, the company owns 5 pulp and paper mills, 6 renewable energy facilities, 14 OSB facilities, 3

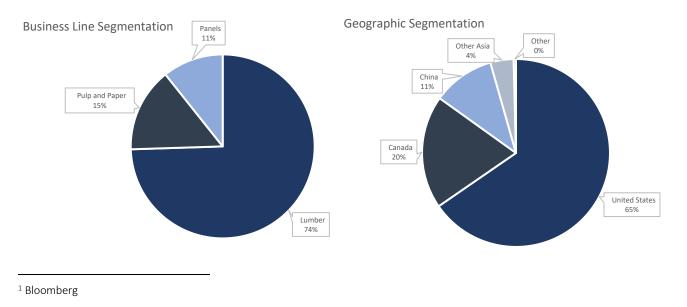
Additionally, the company owns 5 purp and paper limits, medium density fibreboard (MDF) facilities, 3 plywood facilities, 2 particle board facilities, 1 laminated veneer lumber (LVL) facility, 1 treated wood facility and 1 veneer facility. Canadian products stem from spruce-pine-fir (SPF) lumber, while American products are comprised of yellow southern pine (SYP) lumber. Timber is a highly capital-intensive business with large investments required to maintain and increase capacity.

Canadian operations are concentrated in British Columbia and Alberta. They require provincially approved licences to harvest publicly owned land. US operations are concentrated in the South. Sales channels include retail,



wholesale, remanufacturers, and treating businesses. Timber has separate sales offices for Canadian and US mills. They conduct export sales via the Canadian office, with customer service support in an office in Japan. Sales efforts are primarily conducted via rail transportation¹. Timber has more than 12 primary suppliers include Canadian National Railway, Huntsman Corp, American Electric Power, and Atco. Primary customers include BMC Stock Holdings, Bois Cascade, Builders FirstSource, Doman Building Materials Group, Pinnacle Renewable Energy, and WONIK Cube.

Timber operates in three distinct business lines: lumber, pulp and paper, and panels. Lumber is the key driver at 75% sales, followed by pulp and paper at 15% and panels at 10% respectively. Lumber includes SPF and SYP products. Pulp and papers include plywood, vertically laminate veneer (VLV), and medium-density fiberboard (MDF) under Blue Ridge and Quesnel product lines. Many of the company's raw materials are used as inputs in more complex processing for pulp and paper, MDF, and energy products. Approximately 65% of sales are derived in the US, 20% in Canada, and 15% in Asia and other markets, with 10% in China alone.



Page|2 **West Fraser** Timber engages in acquisitions to extend existing business lines and diversify products and geographic operations. On February 1st, 2021, Timbers acquired Canadian-based panel manufacturer, Norbord. This acquisition positioned Timber as the world's largest producer of oriented strand board, a strong building material and alternative to plywood. The company operates several subsidiaries including West Fraser Mills Ltd. West Fraser Southeast, West Fraser Newsprint, Blue Ridge Lumber, and Sundre Forest Product. Additionally, the company is engaged in Alberta Newsprint Company and Cariboo Pulp & Paper Company joint ventures.

Subsidiaries	Location of Incorporation	Percentage of Ownership
West Fraser Mills Ltd.	British Columbia	100
Blue Ridge Lumber Inc.	Alberta	100
Sundre Forest Products Inc.	Alberta	100
Manning Forest Products Ltd.	Alberta	100
West Fraser Inc.	Delaware	100
West Fraser Wood Products Inc.	Delaware	100
West Fraser Southeast Inc.	Delaware	100
Cariboo Pulp and Paper Company	British Columbia	50
West Fraser Newsprint Litd.	Alberta	50

INDUSTRY TRENDS

Forestry is a \$104 billion industry with recent growth of 18% YoY.² Canada is by far the leading exporter of lumber, exhibiting a large product trade balance gap with the next global competitor, Sweden. The gap between these two countries has been continuously widening since 2009.³ Similar to other commodities, wood products experience extreme price fluctuations with shifts in the economic cycle and consumer trends. The rise of digital platforms as a substitute to paper means, changes in demand for housing starts and industrial construction, and an increased focus on sustainability and the need for fuel alternatives to oil, biochemical products for pharmaceuticals, biodegradable alternatives to single-use plastics, and more environmentally friendly building materials, have all heavily contributed to changes in industry dynamics. The pandemic has served to heighten some of these trends and cause dramatic fluctuations in the price of lumber.

*Pandemic implications on the price of lumber*⁴: In April 2021, lumber spearheaded the greatest increase in the industrial product price index (IPPI) since 1980. The IPPI increased by 14.2% YoY and lumber prices alone increased by 6.5%.⁵ By mid-May, Lumber prices reached \$1,600 per 1,000 board feet. Although wood product manufacturers had available capacity, pandemic-related workplace regulations, transportation-related supply chain barriers, US-instated tariffs on Canadian imports of lumber products, and a surge in home improvements and construction led to these price increases. Consumers resisted these prices by delaying home improvements and construction projects. This forced lumber prices down to the current price of \$600. Post-pandemic, market corrections are expected to ensue as pent-up consumer demand is relieved and business operations return to "normal."

² Bloomberg

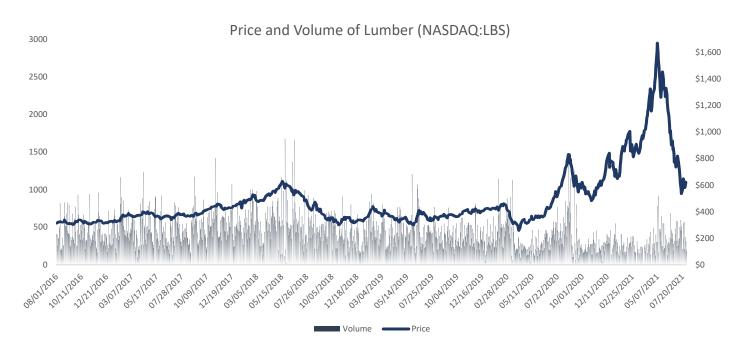
³ https://www.nrcan.gc.ca/our-natural-resources/forests-forestry/forest-industry-trade/overview-canadas-forest-industry/13311

⁴ https://www.nasdaq.com/market-activity/commodities/lbs/historical

⁵ https://www150.statcan.gc.ca/n1/daily-quotidien/210513/dq210513a-eng.htm

The rise of digital platforms: Lifestyle changes have shifted from a reliance on paper to favour digital platforms. Paper creates unnecessary challenges by being more difficult to track, use a greater amount of space, have environmental consequences, and cause information to be more difficult to access and share. The pandemic has further exacerbated this shift through remote work settings and by flagging the additional health and safety risks of transferring documents between individuals. This transformation in how individuals live, work, and absorb media has negatively impacted the forestry industry. It has forced wood product producers to seek alternative business line opportunities and transform their production, marketing, and overall business operations.

Shifting consumer demand to favour environmentally sustainable alternatives: The forestry industry has adapted to changes in consumer demand to stay profitable. Traditional businesses favoured paper production for stationary, office, and marketing needs. New businesses have transitioned to offer products that are more sustainably aligned. Key changes to product offerings include wood pellets as an alternative fuel source, biodegradable replacements for single-use plastic goods, biochemical compounds to replace traditional chemicals, and building materials that are sustainably sourced and biodegradable. The wood industry is now critical in creating more sustainable product life cycles including providing energy during manufacturing, inputs used in consumer goods, packaging of goods, and recycling or disposal. In particular, wood pellets are considered one of the most superior biofuels, honing the carbon neutral effect of biofuels without the release of other polluting particulates (NOx, SO2, and CO.)

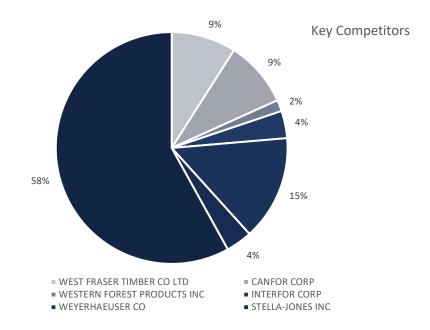


COMPETITIVE POSITIONING

The lumber industry is fairly fragmented, with the 6 key competitors making up 40% of all revenue, and the remaining 60% divided by more than 30 other firms.⁶ Acquisitions of smaller firms are therefore common within the industry. Producers are predominantly concentrated in Canada but supported by US operations. Key competitors include Canadian Canfor (British Columbia), Stella-Jones (Quebec), Western Forest (British Columbia), and US Weyerhaeuser (Washington). 2018 US tariffs on Canadian imports have created additional strain on Canadian producers. Canadian companies invested in US mills may

⁶ Bloomberg

therefore benefit from the lack of tariffs on export sales, capitalize on diversification of lumber and market access, and be better positioned to meet consumer demand.



Weyerhaeuser: With a \$26 billion market cap, Weyerhaeuser is the largest competitor in the industry. 87% of the company's revenue is generated in the US, followed by 7%, 4%, 1% and 1% in Canada, Japan, China and international countries respectively. Unlike competitors, Weyerhaeuser's business segments span traditional sawmill products as well as timber-producing real estate. In particular, the company specializes in harvesting, developing and constructing real estate for residential, commercial and industrial purposes. Weyerhaeuser therefore serves a vastly different customer than West Fraser Timber.⁷

Canfor: Similar to West Fraser Timber, Canfor generates the majority of revenue from wood products, with the remaining derived from pulp and paper products. The company has a market cap of \$2.4 billion and is therefore less than 1/3 of West Fraser's size. The company is located in Vancouver, British Columbia and services the US, Asia, Europe, Canada and international markets at 56%, 18%, 14%, 10% and 2% respectively.⁸

Western Forest: Western Forest is the smallest of key competitors with a market cap of \$583 million. Unlike peers, their geographic segmentation is more fragmented. 34% is derived from Canada, 32% in the US, and 16%, 5% and 13% are generated in China, Japan , Europe and International markets respectively.⁹

Interfor: Interfor has a market cap of \$1.3 billion and \$1.84 billion in revenue from wood products. The company is headquartered in Burnaby, Vancouver but primarily ships to the US at 78% of total revenue. Interfor also derives revenue from Canada, Japan, China and international markets at 14%, 3%, 2%, and 2% respectively. The company operates several subsidiaries including Keadle Lumber Enterprises, Seaboard International Shipping Company, and Cedarprime Inc.¹⁰

⁷ Bloomberg

⁸ Bloomberg

⁹ Bloomberg

¹⁰ Bloomberg

Stella-Jones: With a market cap of \$2.3 billion, Stella-Jones derives 70% of revenue from wood products and 30% from wood preservation. The company focuses on industrial structures for electrical utilities and telecommunications firms. Nearly 70% of the company's revenue is derived in the US, with the remaining in Canada.¹¹

Timber performs better than peers across all key metrics. The company has a larger market cap and net sales due to their geographically dispersed operations. They have a greater dividend yield due to their mature and stable operations. Timber also has better profitability margins because they have more capacity to capitalize on economies of scope and scale, and more leverage to invest in process efficiencies. This is proven through their larger 12-month capex spending and lower debt to asset ratio. The company's operating margin, gross margin, and return on assets are greater than industry peers by 9%, 15%, and 14% respectively. On average, the company is also more efficient with their capital, yielding a return on invested capital 8% higher than peers. This is especially important due to the capital-intensive nature of the industry.

WEST FRASER TIMBER	(WFG)											
Name	Ticker	Mkt Cap (USD)	Net Sales 12M	Dvd Yld	CAPEX (\$M)	Op Margin	Gross Margin	ROA	ROE	ROIC	D/A	P/EBITDA
Median		2363.7	3367.63	0.71	- 153,716	34.275	25.395	15.29	25.325	18.9	18.59	3.255
WEST FRASER TIMBER	WFG	8665.34	5828.62	0.91	- 197,964	37.52	29.18	17.39	29.37	20.47	17.8	2.9
CANFOR	CFP	2409.98	4715.78	0	- 164,089	31.03	23.29	20.74	49.43	27.64	10.27	1.68
WESTERN FOREST	WEF	582.25	900.13	0.51	-16,317	20.16	10.15	13.19	21.28	17.33	2.8	3.61
INTERFOR	IFP	1345.88	1934.09	0	- 143,342	41.87	27.5	28.88	48.84	34.18	19.38	1.97
WEYERHAEUSER	US	26110.14	8310	0.98	266,000	38.15	27.68	7.79	15.26	14.56	32.45	8.58
STELLA-JONES	CN	2317.42	2019.48	1.41	-35,771	13.16	17.48	8.99	17.28	10.6	34.95	7.08

Source: Bloomberg

ESG CONSIDERATIONS

Timber is an ESG industry leader in the forestry space, showing consistent improvements in metrics and greater positioning relative to peers. The company is transparent in their ESG rankings, sharing full sustainability reports, metrics and certifications on their website.

Environment: Timber's product offerings encompass 95% of log materials and therefore limit waste production.¹² The company's Canadian sourcing and management activities are certified by the Sustainable Forestry Initiative (SFI) and licensed by the provinces in which the operate. The company does not own US mills but procures lumber from US and Ontario suppliers with SFI certifications. Timber also maintains a Programme for Endorsement of Forest Certification (PEFC) to ensure that their supply chain consists of ethical sources, practices, legal and regulatory application, and standards.

¹¹ Bloomberg

¹² https://www.westfraser.com/responsibility

The company currently supplies 75% of their operations with renewable energy sources. Additionally, Timber produces bioenergy via their pulp products and has invested in capital improvements for greater energy efficiency. Some of these retrofits include rebuilding the Alberta sawmill in 2018, upgrading refining technology, log merchandising, and sales systems in existing mills between 2018 and 2020, and completing an upgrade of veneer dryers in the Alberta facility in 2020.¹³ These retrofits have helped reduced scope 1 and 2 GHG emissions (direct and owned) by 5% since 2005 and 13% GHG emissions/revenue YoY. Solid wood manufacturing facilities

direct emissions have decreased by 22% alone, despite increasing capacity by 41% with greater production growth and sawmill acquisitions. The company is therefore well below competitors at 90% peer average GHG/revenue. The company has not relayed information on scope 3 emissions. These are unowned indirect emissions including, upstream activities (employee commuting, waste disposal, purchased goods and services), transportation and distribution, and downstream activities (product use, product disposal, investments.) This is especially pertinent because the company does not own forest management operations in the US. The impact of third-party suppliers is therefore not considered in environmental improvements. The company has indicated plans to continue improvements in emission tracking, management, and reporting with regard to carbon tax regulations in key areas of operation. Timber therefore abides by Alberta's Technology Innovation and Emissions Reduction (TIER) Regulation and B.C.'s Climate Change Accountability Act (CCAA).

Metrics	Current	Delta	Peer
Environmental			
GHG/Revenue	306.3	-46.4	-34.5
Social			
Women Employees %	14	-3	
Employee Turnover %	19	0	
Employees Unionized %	34	1	16.6
Lost Time Incident Rate	1.02	0.1	
Governance			
Independent Directors %	90	8.2	1.1
Women BoD Members %	38.5	29.4	13.5
Director Meeting Attd %	100	8	0.5
Board Size	13	2	4
	Better	Worse	Indifferent

Social: Timber engages in socially responsible businesses practices by identifying and consulting key stakeholders impacted by operations. The company works with more than 100 Indigenous communities and organizations who are local to land harvested. The natural resource industries are primarily male dominated, with only a 17% female workforce.¹⁴ Timber is no exception, made up of only 14% female employees, for a 3% YoY decrease. Another large trend in the natural resource sector is high employee unionization. 34% of Timber's employees are unionized, which is more than double industry average.

Governance: Timber's board size is more than 3x peer average with 13 members, and the percentage of independent directors is almost 90x peer average at 90%. The percentage of independent directors has increased by 10% YoY. Despite women making up a small portion of Timber's overall workforce, their board of directors is more balanced than peers at 38.5% female members. This implies that Timber is prioritizing controversial board issues of inequity, lack of diversity in opinion, transparency, and bias. Additionally, Timber has omitted that their historical approach to environmental, social, and governance factors has been primarily compliance-driven for the granting of provincial government licences and achievement of certifications. The company has indicated they will proactively work to create impact, rather than meet legal and regulatory needs.

¹³ 10k¹⁴ https://www.cif-ifc.org/gender-equity-in-canadas-forest-sector-initiative/

RISKS

The forestry industry is highly susceptible to fluctuations in the economic cycle, shifting consumer demand, and supply chain interferences. Additionally, companies within the industry must continue to invest and innovate to stay competitive. Timber is therefore subject to a variety of industry-wide and company specific risks.

Cyclical economic implications on demand: As a commodity manufacturer, Timber's products are primarily inputs and therefore volatile to the price of the input itself, complementary goods, and related outputs. Demand for such products varies throughout the year with construction activity, and throughout the economic cycle with stimulation in housing starts, industrial construction and building renovations. Recessions therefore pose a serious threat to the forestry business.

Seasonal influences on the supply chain: Timber's wood products are susceptible to seasonal influences on logging activities, manufacturing, and transportation. Severe weather such as wildfires may limit logging activity, and hurricanes and cold weather may impede manufacturing. The company also relies on rail transportation for their distribution efforts. Rail transportation may be subject to environmental factors such as seasonal and catastrophic weather.

Geopolitical factors limiting access to markets: Transportation between countries may be subject to political factors such as border tariffs and quotas. Although the company yields two distinct sales offices for their Canadian and American operating regions, the Canadian sales office also spans international exports. Thus, free trade agreements to stimulate the wood product industry in other nations, trade wars, or any other international government intervention could directly impact Timber's profitability.

Pressure to innovate: The commodity landscape is constantly evolving to meet changing consumer demands, workforce needs, and technology-enabling efficiencies. Timber must continuously prove that products are purposeful, and processes are advanced enough to meet these industry-wide changes. This means additional considerations for sustainability implications and applications, technological advancements for greater efficiencies, employee upskilling and reskilling, and international relationships for greater market access and reach.

Relationships with supply chain stakeholders and external ESG considerations: Forest management activities in the US are not controlled by Timber and the company does not have influence over operations. Relationships with local Indigenous peoples and sustainable harvesting practices pose a high ESG risk.

FINANCIALS

In 2019, low lumber prices and pandemic disrupted supply chains reduced Timber's financial positioning. The company was able to able recover to pre-pandemic levels in 2020. The company's profitability grew 8% EBITDA and 7% operating margin since 2018 with lower indirect expenses, despite stunted growth in 2019. Profit margin exhibited little change since 2018. These ratios have been steadily increasing since 2015, driven by greater efficiencies and acquisitions to widen margins.

Timber's key liquidity ratios remained relatively unchanged or recovered to pre-pandemic levels in 2020. Since 2018, Timber's cash ratio more than doubled but remains less than 1, and accounts receivable turnover increased by 4%. This was the result of good contract management and the ability to collect outstanding debts from customers via pandemic relief. In 2019, current ratio fell 30% YoY which was below 2015 levels. This was caused by high price shocks to lumber and the inability to sell inventory. It has since recovered by 17% with improved inventory management. Similarly, inventory turnover, accounts payable, and asset turnover have

decreased in 2019 but slightly recovered in 2020. These ratios have also exhibited steady growth since 2015 and should therefore not be a concern moving forward if management continues to collect from debtors, pay creditors, and manage inventory effectively.

Debt repayment is not a concern for Timber. The company's debt to asset and debt to equity ratios are below peer averages and continuously decreasing. Despite acquisitions, the company is well positioned with a net interest coverage decreasing 22% since 2018, and 30% since their 2017 acquisitions. The company has proven to manage debt loads and make acquisition repayments successfully. Additionally, Timber is not overleveraged and therefore not at risk should any new acquisitions come to the forefront.

Earnings per share is at \$8.43 and has increased at an average of 168% YoY since 2015. This earnings growth has been compensated with a high dividend yield, increasing at an average of 25% YoY since 2015. The company has not indicated any future actions to reduce or discontinue dividend growth. This high dividend yield indicates a steady flow of income for investors.

VALUATION

West Fraser Timber was valued using equally weighted DCF an Relative Valuation models for a target price of \$103.13. This results in a 23% upside from the current price of \$83.64. Both valuation models considered ESG adjustments based on the company's attractiveness compared to peers due to their positive ESG positioning. As downstream companies become more critical of their own value chains and product offerings, they are likely to favour ESG-oriented suppliers. Therefore, Timber is expected to see more growth potential and customers may be willing to pay more for their seemingly "higher quality products."

The DCF model considered four revenue scenarios: Base, Bull and Bear cases, as well as an "Analyst's Discretion" case. The Base case allowed for uncertainty in pricing, the Bear case assumed temporary price increases, and the Bull case or "ESG case" was aggressive in projections, assuming greater demand for wood pellet biofuel (pulp and paper products) and other materials that if derived from ESG-oriented companies may yield higher prices. The Analyst's Discretion case assumed some price fluctuation from the Base case, but projected prices upwards to account for slight price increases associated with the Bull case. These revenue projections are aligned to street forecasts, and were the only projection considered in the final Target price.



The Gordon Growth Model and Multiples Method were equally weighted to determine the terminal value. A growth rate of 2% and multiple of 5x were selected respectively. The 5x multiple was calculated by slightly upward revising the median EV/EBITDA multiple of peers to account for greater growth potential. The discount

rate of 14.1% was calculated via the bottom-up beta method and differentiates from Bloomberg's estimate by - 0.1%. The intrinsic value was calculated at \$102.63 for a 22.7% upside.

				Grov	wth	Rate		
		1.0%	1.5%	2.0%		2.5%		3.0%
e	12%	\$ 111	\$ 113	\$ 115	\$	117	\$	120
Rate	13%	\$ 106	\$ 107	\$ 109	\$	110	\$	112
II	14%	\$ 101	\$ 102	\$ 103	\$	105	\$	106
scol	15%	\$ 96	\$ 97	\$ 98	\$	100	\$	101
ij	16%	\$ 92	\$ 93	\$ 94	Ś	95	¢	96

				EV/	'EBI	ГDA	
		3x	4x	5x		6x	7x
a	12%	\$ 102.39	\$ 108.69	\$ 114.98	\$	121.28	\$ 127.57
Rate	13%	\$ 96.47	\$ 102.54	\$ 108.61	\$	114.69	\$ 120.76
nt I	14%	\$ 91.41	\$ 97.27	\$ 103.13	\$	109.00	\$ 114.86
no	15%	\$ 87.02	\$ 92.68	\$ 98.34	\$	104.01	\$ 109.67
Discol	16%	\$ 83.17	\$ 88.64	\$ 94.11	\$	99.58	\$ 105.05

The Relative Valuation method used the peer median of forward EV/Sales, EV/EBITDA, and P/E ratios. The averages of these results were weighted at 25% of the final market value calculation. The other 75% was calculated using ESG-adjusted ratios. The company's estimated production of GHG emissions/sales ratio was used as a proxy for ESG-orientation because the industry is heavily capital intensive. Timber is superior to peers in this ratio and may therefore be seen as a more attractive supplier. Therefore, multiples were revised upwards using the 75th percentiles to represent greater expected growth. The final calculated market value was \$103.65 for a 23.9% upside.

INVESTMENT RECOMMENDATION

West Fraser Timber is a recommended BUY at a 23% upside. Not only does the company exhibit a strong business model, competent management, and great expected future growth with lumber pricing, but the company is an excellent representation of an ESG leader in the commodities space. The company performs better than peers across all key financial metrics, is large in scope and geographic reach but incurs limited trade barriers, and exhibits better-than-peer average ESG metrics that management has committed to continuously improve. The company's commitment to dividends provides a sustainable stream of income, and their internal and acquisition-growth strategies ensure greater future cash flows. However, is it important to monitor future acquisitions to ensure the company is not hindered from prior transaction hubris and that external growth does not replace internal innovation. Additionally, future relations with the local communities in which they operate and laws regarding environmental protection should maintain top of mind to reduce risks of litigation and other financially material consequences. Overall, West Fraser Timber has the potential to yield promising returns for both the Sprott Student Investment Fund and associated investors.

APPENDIX I – FINANCIAL CONDITION

WEST FRASER TIMBER (WFG)						
In Millions of USD except Per Share	2015	2016	2017	2018	2019	2020
Profitability						_
EBITDA Margin	10.73	15.26	21.04	21.72	2.05	23.42
Operating Margin	6.07	10.83	16.95	17.52	-3.26	18.77
Profit Margin	2.54	7.33	11.61	13.24	-3.08	13.27
Return on Assets	2.96	9.01	14.69	17.4	-3.17	14.95
Return on Common Equity	4.98	14.86	24	28.82	-5.59	27.57
Return on Invested Capital	6.12	12.43	18.85	21.3	-2.57	19.76
Liquidity						
Current Ratio	1.6	2.04	2.21	2.26	1.37	1.6
Cash Ratio	0.02	0.11	0.44	0.27	0.02	0.55
Activity						
Accounts Receivable Turnover	15.19	17.91	18.98	21.7	20.58	22.63
Inventory Turnover	5.75	5.94	6.04	5.95	5.74	5.66
Accounts Payable Turnover	18.14	17.75	16.99	17.74	17.25	16.14
Cash Conversion Cycle	67.35	61.43	58.2	57.56	60.12	58.17
Asset Turnover	1.17	1.23	1.27	1.31	1.03	1.13
Net Fixed Asset Turnover	2.66	2.7	2.87	3.1	2.32	2.75
Financial Leverage						
LT Debt to Total Assets	11.64	11.47	14.08	14.44	14.1	11.16
LT Debt to Total Equity	19.7	18.43	23.33	23.9	26.6	20.19
Total Debt to Total Equity	29.34	19.1	23.33	26.45	42.89	32.87
Financial Leverage	1.68	1.65	1.63	1.66	1.76	1.84
Net Interest Coverage	7.78	19.5	36.25	32.53	_	25.23
Capital Expenditure Ratio	1.37	2.52	2.68	2.46	0.28	5.37
Shareholder						
Basic Earnings per Share	0.98	3.07	5.88	8.4	-1.64	8.43
Dividend Payout Ratio	22.37	6.75	4.7	6.3	_	7.09
Average Dividend Yield	0.56	0.67	0.45	0.45	1.22	1.62
Source: Bloomberg						

2021-01-11	E	
West Fraser Timber (NYSE:WFG)	West Fr	ase
	DCF Valuation <i>Upside</i> Relative Valuation <i>Upside</i>	\$102.63 22% \$103.65 24%
	Target Price	\$103.14
Equity Analyst Gabrielle D. Kolotinsky Sector: Energy, Utilities and Materials	Current Price	\$83.64

Levered Beta and WACC Calculation

	Unlevered Beta	Debt (\$USD milli	n) Debt % E	quity (\$USD million)	Equity %	5-Year Average Tax Rate	Levered Beta
Current Capital Structure	1.51	\$ 498.	0 5.1% \$	9,200.40	94.9%	27.5%	1.57
"Optimal" Capital Structure	1.51	\$ 1,144.	9 11.8% [•] \$	8,555.21	88.2%	27.5%	1.66
Cost of Equity							
Current capital structure, comps							13.5%
"Optimal" capital structure, comps							14.1%
Historic beta							17.2%
Average Cost of Equity							15.0%
Cost of Capital							
Current capital structure, comps							12.9%
"Optimal" capital structure, comps							12.8%
Historic beta							16.5%
Average WACC							14.1%

5-Year Average Tax Rate Calculation

Name	Ticker	2016A	2017A	2018A	2019A	2020A	5 Year Average Tax Rate
CANFOR CORP	CFP CN	23.9%	25.2%	25.4%		22.3%	24.2%
WESTERN FOREST PRODUCTS INC	WEF CN	8.1%	7.4%	6.1%	-5.4%	3.6%	4.0%
INTERFOR CORP	IFP CN	9.9%	26.0%	26.0%	0.0%	24.2%	17.2%
WEYERHAEUSER CO	WY US	17.7%	18.7%	7.3%	18.7%	7.3%	13.9%
STELLA-JONES INC	SJ CN	28.6%	10.9%	26.5%	25.4%	26.1%	23.5%
Average							
West Fraser Timber	WFG	26.6%	29.6%	24.4%	31.5%	25.5%	27.5%

West Fraser Timber (NYSE:WFG)

Assumptions Model Inputs

Model Inputs													Live C	Case	Analyst Di	scretion
Firm	West Fraser Timber (NYSE:WFG)				2016A	2017	7.0	2018A	2019A	2020A	2021	F 2022	5	2023F	2024F	2025F
Units	\$1M USD	Revenue			20104	2017	~~	20104	2019A	20204	2021	F 2022		20256	20246	20235
Transaction Date	2021-01-11	Lumber														
Forecast Period (yrs)	5	Price per MMfbm	(*****	\$	0.38			0.50 \$	0.41) \$ 1.20		1.30 \$		
Current Price	83.64	Production Shipments	(MMfbm) (MMfbm)		5935 6004	623 610		6609 6582	5912 6055	5958 6075	6129.4 6166.4			5155.34 5155.34	6064.60 6064.60	6095.12 6095.12
Fully Diluted Shares o/s (MM)	110	Used Production	(wiwion)		101.2%	97.9		99.6%	102.4%	102.0%	100.65			100.0%	100.0%	100.0%
Tax Rate	25%	Lumber Revenue		<	2,297.80	\$ 2,739.8	n \$ 3	3 312 00 \$	2 500 00	\$ 3,253.70	\$ 7.399.69	9 \$ 7.401.94	نه ۲۵	001.94 Ś	7.883.98	8 533 17
	2378				2,237.00	\$ 2,733.0	0 0 0	5,512.00 \$	2,300.00	<u>, ,233.70</u>	Ş 7,333.0.	, 2 ,401.34	. J. 0,0	101.54 3	, 1,003.30 4	0,555.17
Hardcode Link within Workbook		Pulp and Paper Price per MMfbm		s	0.51	\$ 0.5	9 Ś	0.71 \$	0.58	\$ 0.53	\$ 1.30) \$ 1.40		1.40 \$	1.50 \$	1.50
LINK WITHIN WORDOOK		Capacity	(metric tonnes)	ç	1385	5 0.5: 139		1395	1395	5 0.55 1395	3 1.50			1.40 5	1395.00	1395.00
Depreciation	Straight-line	Production	(metric tonnes)		1320	129		1270	1249	1229	1274.3			1274.31	1274.31	1274.31
Capex (as a % of Revenue)	4.8%	Used Capacity			95.3%	92.8	%	91.0%	89.5%	88.1%	91.39	6 91.3%	\$ - P	91.3%	91.3%	91.3%
Terminal Growth Rate	2.0%	Pulp and Paper Revenue			670.00	\$ 761.7	n s	897.60 \$	728.10	\$ 647.20	\$ 1,656.60) \$ 1,784.03	\$ 17	784.03 \$	1,911.46 \$	1 911 46
Exit Multiple	5x			Ť	070.00	<i>y</i> 702.77	<u> </u>	007100 0	720.20	y 047120	Ç 1,050.0	, ý 1,704.05	¥ 1,7	04.05 0	, 1,511.40 <u>,</u>	1,511.40
Discount Rate	14%	Panels														
		Price per MMfbm Capacity	(\$USD) (sq ft)	\$	0.12 4300	\$ 0.11 431	2\$	0.15 \$ 3710	0.15 3710	\$ 0.16 3710	\$ 0.3 3710.0	5 \$ 0.35 0 3710.0		0.40 \$ 3710.00	0.40 \$ 3710.00	0.50 3710.00
Error Check		Production	(sq ft)		4300 3201	431		3710	3710	2919				3050.20	3710.00	3050.20
EITOT CHECK		Used Capacity	(3411)		74.4%	86.0		89.2%	82.8%	78.7%	82.29			82.2%	82.2%	82.2%
Master Check:	ок															
		Panel Revenue		\$	393.50	\$ 456.4	0\$	512.50 \$	447.70	\$ 465.80	\$ 1,067.53	\$ 1,067.57	\$ 1,2	220.08 \$	1,220.08 \$	1,525.10
A = L + E Cash Balance	OK OK															
cush bulance	UK	Total Estimate Revenue		\$	3,361.30	\$ 3,957.9	0 \$ 4	4,722.10 \$	3,675.80	\$ 4,366.70	\$ 10,123.8	5 \$ 10,253.54	\$ 11,0	006.05 \$	11,015.52	11,969.73
Scenario Overview		Price Assumptions														
Analyst Discretion					2016A	2017	7A	2018A	2019A	2020A	2021	F 2022	F	2023F	2024F	2025F
	B. Already exhibiting improved sales with	Analyst Discretion														
higher lumber prices. Will continue to acquisitions.	see growth internally and through	Lumber Pulp and Paper		\$ \$	0.38	\$ 0.4 \$ 0.5	5\$ 9\$	0.50 \$ 0.71 \$	0.41 0.58		\$ 1.20 \$ 1.30) \$ 1.20) \$ 1.40		1.30 \$ 1.40 \$	1.30 \$ 1.50 \$	
Base		Panel		ŝ	0.12		2\$	0.15 \$	0.15		\$ 0.3			0.40 \$	0.40 \$	0.50
Slightly more conservative than analys	it's estimates, allowing for slight price															
decreases as necessary.		Base Lumber		s	0.38		5\$	0.50 \$	0.41	\$ 0.54) \$ 1.20		1.20 \$	1.30 \$	1.30
Bull (ESG)		Pulp and Paper		ş		\$ 0.4: \$ 0.5!		0.50 \$		\$ 0.54 \$ 0.53	\$ 1.20			1.20 \$		
	cts skyrockets with greater sales of wood	Panel		ş	0.12			0.15 \$	0.15		\$ 0.3			0.40 \$		
	consistently grow and maintain an ESG-															
friendly reputation. Bear		Bull Lumber		s	0.38	¢ 0.4	5\$	0.50 \$	0.41	\$ 0.54	¢ 17	\$ 1.30		1.40 \$	1.40 \$	1.50
Price increases are temporary and retu	urn to steady levels.	Lumber		ç	0.50	Ş 0.4.	, ,	0.50 \$	0.41	Ş 0.54	Ş 1.2	, 5 1.50	÷	1.40 9	1.40 0	1.50
		Pulp and Paper		\$	0.51		9\$	0.71 \$	0.58		\$ 1.4			1.60 \$		
		Panel		\$	0.12	\$ 0.1	2\$	0.15 \$	0.15	\$ 0.16	\$ 0.40	\$ 0.40	\$	0.40 \$	0.40 \$	0.50
Exit Multiple																
Exit Multiple		Bear Lumber		\$	0.38	\$ 0.4	5\$	0.50 \$	0.41	\$ 0.54	\$ 1.20) \$ 1.20	s	1.20 \$	1.20 \$	1.20
Competitors	EV/EBITDA	Pulp and Paper		ş		\$ 0.5		0.71 \$		\$ 0.53	\$ 1.20			1.30 \$		
CANFOR CORP	Зх	Panel		\$	0.12	\$ 0.1	2\$	0.15 \$	0.15	\$ 0.16	\$ 0.3	\$ 0.35	\$	0.40 \$	0.40 \$	0.40
WESTERN FOREST PRODUCTS INC INTERFOR CORP	4x 4x															
WEYERHAEUSER CO	14x	COGS Assumptions														
STELLA-JONES INC	9x															
					2016A	2017	7A	2018A	2019A	2020A	2021	F 2022	F	2023F	2024F	2025F
MEDIAN	4x	COGS Lumber COGS							1.950.60	\$ 1.875.80	A 4555 3	\$ 4.614.09			1056.00	5 206 20
WFG is showing great growth potentia	al through internal and acquisition means.	Lumber % Revenue						\$	53.1%	\$ 1,875.80 43.0%	\$ 4,555.74			952.72 \$ 45.0%	4,956.99 \$ 45.0%	5,386.38 45.0%
		Pulp and Paper COGS						\$	553.20			\$ 1,345.57				
		Pulp and Paper % Revenue							15.0%	11.2%	13.15	6 13.1%		13.1%	13.1%	13.1%
		Panels COGS						s	351.10	\$ 304.50	\$ 836.4	3 \$ 847.19	\$ 9	909.37 \$	910.15 \$	988.99
		Panels % Revenue							9.6%	7.0%	8.3	6 8.3%	5	8.3%	8.3%	8.3%
		Corporate and Other COGS						c	435.00	\$ 423.30	\$ 1089.7	\$ 1,103.69	\$ 11	184.69 ¢	1.185.71	1.288.47
		Corporate and Other % Revenue						2	11.8%	9.7%	10.89			10.8%	10.8%	1,288.42
		Total COGS Total % Revenue		\$	2,719.30 74.0%	\$ 2,911.8 79.2		3,356.70 \$ 91.3%	3,289.90 89.5%	\$ 3,092.50 70.8%	\$ 7,810.49 77.19	\$ 7,910.54		491.10 \$ 77.1%	8,498.41 \$ 77.1%	9,234.58 77.1%
		iotul % Revenue			74.076	79.23	/0	31.5%	09.3%	70.8%	//.1)	• 77.1%		//.170	11.170	77.1%
		Operating Expenses Assur	nptions													
					2016A	2017	7A	2018A	2019A	2020A	2021	F 2022	F	2023F	2024F	2025F
		Operating Expenses														
		Solling Conoral and Administratio	n	ć	122.00	C 151 0	n ¢	179 20 ¢	150.00	C 194.40	¢ 214.7	c 21976	. ć 2	2/161 ¢	2/101 0	371 52

	2016A	2017A	2018A	2019A	2020A	2021F	2022F	2023F	2024F	2025F
Operating Expenses										
Selling, General and Administration	\$ 132.90	\$ 151.90	\$ 178.30	\$ 159.00	\$ 184.40	\$ 314.23 \$	318.26	\$ 341.61	\$ 341.91	\$ 371.53
Selling, General and Administration % Revenue	4.0%	3.8%	3.8%	4.3%	4.2%	4.0%	4.0%	4.0%	4.0%	4.0%
Depreciation and Amortization	\$ 148.80	\$ 161.90	\$ 198.40	\$ 195.20	\$ 203.00	\$ 197.63 \$	230.42	\$ 265.61	\$ 300.83	\$ 339.10
Depreciation and Amortization % Revenue	4.4%	4.1%	4.2%	5.3%	4.6%	2.0%	2.2%	2.4%	2.7%	2.8%
Other Expenses (freight, export duties)	\$ (3.80)	\$ 61.70	\$ 161.30	\$ 151.50	\$ 67.20	\$ 155.80 \$	157.79	\$ 169.37	\$ 169.52	\$ 184.20
Other Expenses % Revenue	-0.1%	1.6%	3.4%	4.1%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
Total Operating Expenses	\$ 281.70	\$ 313.80	\$ 376.70	\$ 354.20	\$ 387.40	\$ 511.86 \$	548.67	\$ 607.22	\$ 642.74	\$ 710.63
Total % Revenue	7.7%	8.5%	10.2%	9.6%	8.9%	6.6%	6.9%	7.2%	7.6%	7.7%

West Fraser Timber (NYSE:WFG)

Operating Model

Operating Assumptions

		2016A	2017A	201	BA	2019A		2020A	2021	F	2022F	202	F	2024F		2025
Income Statement																
Revenue	Ş	3,361.30 \$, ,		3,675.80	\$ 4	,366.70 18.8%	\$ 10,123.86		10,253.54 1.3%	\$ 11,006.0 7.3		11,015.52 0.1%	Ş 1	
% Growth			17.7%	19.3	%	-22.2%		18.8%	131.89	6	1.3%	7.3	6	0.1%		8.79
COGS	\$	2,719.30 \$	2,911.80	\$ 3,356.7		3,289.90		,092.50	\$ 7,810.49	\$	7,910.54	\$ 8,491.1) \$	8,498.41	\$	9,234.58
% Growth			7.1%	15.3	%	-2.0%		-6.0%	152.69	6	1.3%	7.3	6	0.1%		8.79
Gross Profit	\$	642.00 \$	1,046.10	\$ 1,365.4	0\$	385.90	\$ 1	,274.20	\$ 2,313.36	5 \$	2,343.00	\$ 2,514.9	5\$	2,517.12	\$	2,735.1
% Growth	_		62.9%	30.5	%	-71.7%		230.2%	81.69	6	1.3%	7.3	6	0.1%		8.79
Selling, General and Administration	\$	132.90 \$	151.90	\$ 178.3				184.40	\$ 314.23	\$	318.26	\$ 341.6	\$	341.91	\$	371.5
% Growth	_		14.3%	17.4	%	-10.8%		16.0%	70.49	6	1.3%	7.3	6	0.1%		8.79
Depreciation and Amortization	\$	148.80 \$	161.90	\$ 198.4	0\$	195.20	\$	203.00	\$ 197.63	\$	230.42	\$ 265.6	\$	300.83	\$	339.10
% Growth	_		8.8%	22.5	%	-1.6%		4.0%	-2.6%	6	16.6%	15.3	6	13.3%		12.79
Other Expenses (freight, export duties)	\$	(3.80) \$	61.70	\$ 161.3	0\$	151.50	\$	67.20	\$ 155.80	\$	157.79	\$ 169.3	\$	169.52	\$	184.20
% Growth	_		-1723.7%	161.4	%	-6.1%		-55.6%	131.89	6	1.3%	7.3	6	0.1%		8.7%
Operating Income	\$	364.10 \$	670.60	\$ 827.4	0\$	(119.80)	\$	819.60	\$ 1,645.70) \$	1,636.53	\$ 1,738.3	5\$	1,704.86	\$	1,840.3
% Growth			84.2%	23.4	%	-114.5%		-784.1%	100.89	6	-0.6%	6.2	6	-1.9%		7.9
Interest Expense	\$	18.10 \$	18.50	\$ 26.2	0\$	33.20	\$	32.10	\$ 35.74	\$	35.74	\$ 35.7	ı \$	35.74	\$	35.7
% Debt		5.7%	3.6%	4.7	%	4.1%		4.0%	4.49	6	4.4%	4.4	6	4.4%		4.4
Foreign Exchange (Gain) Loss	\$	9.10 \$	19.30	\$ (67.2	0) \$	35.40	\$	19.40	\$-	\$	-	\$-	\$	-	\$	-
% Revenue		0.3%	0.5%	-1.4	%	1.0%		0.4%	0.0%	6	0.0%	0.0	6	0.0%		0.0
Other Non-operating (Income) Loss	\$	1.50 \$	(19.30)	\$ 40.9	0\$	(23.40)	\$	(9.70)	\$ (8.82	2) \$	(8.93)	\$ (9.5	9)\$	(9.60)	\$	(10.4
% Revenue		0.0%	-0.5%	0.9	%	-0.6%		-0.2%	-0.19	6	-0.1%	-0.1	6	-0.1%		-0.19
Pre-tax Income	\$	335.40 \$	652.10	\$ 827.5		(165.00)	•		\$ 1,618.78		1,609.72	\$ 1,712.2			\$	1,815.0
% Growth			94.4%	26.9	%	-119.9%		-571.4%	108.19	6	-0.6%	6.4	6	-2.0%		8.19
Income Tax Expense	\$	89.10 \$	192.70	\$ 202.2	0\$	(52.00)	\$	198.50	\$ 404.69	\$	402.43	\$ 428.0	5\$	419.68	\$	453.7
% Pre-tax Income		26.6%	29.6%	24.4	%	31.5%		25.5%	25.0%	6	25.0%	25.0	6	25.0%		25.09
Net Income	\$	246.30 \$	459.40	\$ 625.3	0\$	(113.00)	\$	579.30	\$ 1,214.08	\$	1,207.29	\$ 1,284.1	5\$	1,259.03	\$	1,361.2
% Growth			86.5%	36.1	%	-118.1%		-612.7%	109.6%	6	-0.6%	6.4	6	-2.0%		8.15
EBITDA	\$	512.90 \$	832.50	\$ 1,025.8	0\$	75.40	\$ 1	,022.60	\$ 1,843.33	\$	1,866.95	\$ 2,003.9	5\$	2,005.69	\$	2,179.43
% Growth			62%	23	%	-93%		1256%	80%	6	1%	7	6	0%		99

		2016A	2017A	2018A	2019A	2020A	2021F	2022F	2023F	2024F	2025
Balance Sheet Assets											
Cash and Cash Equivalents	\$	37.20 \$	206.00 \$	117.40 \$	\$ 12.30 \$	459.70 \$	1,109.07 \$	1,996.03	2,873.13 \$	3,862.26 \$	4,815.96
% of Revenue		1.1%	5.2%	2.5%	0.3%	10.5%	11.0%	19.5%	26.1%	35.1%	40.2%
Accounts Receivable	\$	182.20 \$	236.30 \$	196.70 \$	\$ 158.70 \$	243.60 \$	515.35 \$	521.95	560.26 \$	560.74 \$	609.32
% of Revenue		5.4%	6.0%	4.2%	4.3%	5.6%	5.1%	5.1%	5.1%	5.1%	5.1%
Inventory	\$	432.00 \$	534.80 \$	580.60 \$	561.70 \$	575.70	1,359.12 \$	1,376.53	1,477.55 \$	1,478.83 \$	1,606.93
% of Revenue		12.9%	13.5%	12.3%	15.3%	13.2%	13.4%	13.4%	13.4%	13.4%	13.4%
Other Short-term Assets	\$	46.10 \$	53.50 \$	92.50 \$	\$ 151.00 \$	53.30 \$	53.30 \$	53.30 \$	53.30 \$	<i>53.30</i> \$	53.30
% of Revenue	_	1.4%	1.4%	2.0%	4.1%	1.2%	0.5%	0.5%	0.5%	0.5%	0.4%
Property, Plant and Equipment	\$	3,053.50 \$	3,535.60 \$	3,545.20 \$	\$ 3,858.80 \$	4,035.10 \$	4,520.66 \$	5,012.45	5,540.32 \$	6,068.65 \$	6,642.75
% of Revenue		90.8%	89.3%	75.1%	105.0%	92.4%	44.7%	48.9%	50.3%	55.1%	55.5%
Accumulated Depreciation	\$	1,800.70 \$	2,025.20 \$	2,036.10 \$	\$ 2,201.40 \$	2,382.50 \$	2,580.13 \$	2,810.55	3,076.16 \$	3,376.99 \$	3,716.05
% of PPE		59.0%	57.3%	57.4%	57.0%	59.0%	57.1%	56.1%	55.5%	55.6%	55.9%
Intangibles	\$	275.80 \$	583.50 \$	563.00 \$	\$ 594.90 \$	589.80		589.80 \$			589.80
% of Revenue		8.2%	14.7%	11.9%	16.2%	13.5%	5.8%	5.8%	5.4%	5.4%	4.9%
Goodwill	\$	264.70 \$	562.80 \$	545.40 \$	554.80 \$	556.90 \$		556.90 \$		556.90 \$	556.9
% of Revenue		7.9%	14.2%	11.5%	15.1%	12.8%	5.5%	5.4%	5.1%	5.1%	4.79
Other Long-term Assets	\$	185.90 \$	(81.40) \$	(88.10) Ş	\$ (94.00) \$	340.60 \$	340.60 \$	340.60	340.60 \$	340.60 \$	340.6
% of Revenue	_	5.5%	-2.1%	-1.9%	-2.6%	7.8%	3.4%	3.3%	3.1%	3.1%	2.8%
Liabilities and Shareholder's Equity											
Payables	\$	156.90 \$	194.80 \$	190.80 Ş	\$ 184.20 \$	215.40 \$	479.69 \$	485.84 \$	521.49 \$	521.94 \$	567.1
% of COGS		5.8%	6.7%	5.7%	5.6%	7.0%	6.1%	6.1%	6.1%	6.1%	6.15
Accruals	\$	140.50 \$	240.30 \$	163.00 \$	\$ 118.70 \$	269.40 \$		269.40 \$	269.40 \$	269.40 \$	269.4
% of COGS		5.2%	8.3%	4.9%	3.6%	8.7%	6.1%	6.1%	6.1%	6.1%	6.1
Short-term Debt	\$	11.20 \$	- \$	54.30 \$	\$ 310.50 \$	313.30 \$		313.30 \$		313.30 \$	313.3
% of COGS		0.4%	0.0%	1.6%	9.4%	10.1%	4.0%	4.0%	3.7%	3.7%	3.49
Other Short-term Liabilities	\$	32.70 \$	30.30 \$	28.60 \$	\$ 31.60 \$	34.50 \$	34.50 \$	34.50 \$	34.50 \$	34.50 \$	34.5
% of COGS	_	1.2%	1.0%	0.9%	1.0%	1.1%	0.4%	0.4%	0.4%	0.4%	0.4
Long-term Debt	\$	<i>307.10</i> \$	507.70 \$	507.90 Ş		498.90 \$		498.90 \$		498.90 <i>\$</i>	
% of COGS		11.3%	17.4%	15.1%	15.4%	16.1%	6.4%	6.3%	5.9%	5.9%	5.49
Other Long-term Liabilities	\$	362.10 \$	456.60 \$	446.30 \$		669.60 \$		669.60 \$		669.60 \$	
% of COGS		13.3%	15.7%	13.3%	16.4%	21.7%	8.6%	8.5%	7.9%	7.9%	7.39
Common Stock	\$	408.20 \$	438.30 \$	360.40 \$		379.10		379.10 \$		379.10 \$	379.1
% of Revenue		12.1%	11.1%	7.6%	10.1%	8.7%	3.7%	3.7%	3.4%	3.4%	3.25
Retained Earnings	\$	1,146.50 \$	1,651.60 \$		\$ 1,432.40 \$	2,009.70 \$., ,	4,904.07 \$	-, ,		
% of Revenue		34.1%	41.7%	34.7%	39.0%	46.0%	36.9%	47.8%	55.9%	66.9%	72.65
Other Equity	\$	111.50 \$	86.20 \$	124.80 \$		82.20 \$		82.20 \$		82.20 \$	
% of Revenue		3.3%	2.2%	2.6%	2.8%	1.9%	0.8%	0.8%	0.7%	0.7%	0.7%

Income Statement

		2016A	2017A		2018A	2019	A	2020A		2021F	2022F		2023F		2024F		2025F
Revenue	\$	3,361 \$	3,958	\$	4,722	\$ 3,67	6\$	4,367	\$	10,124 \$	10,254	\$	11,006	\$	11,016	\$	11,970
COGS		2719	2912		3357	329	90	3093		7810	7911		8491		8498		9235
Gross Profit	\$	642 \$	1,046	\$	1,365	\$ 38	6\$	1,274	\$	2,313 \$	2,343	\$	2,515	\$	2,517	\$	2,735
Gross Profit Margin		19.1%	26.4%		28.9%	10.5	%	29.2%		22.9%	22.9%		22.9%		22.9%		22.9%
Operating Expenses																	
Selling, General and Administration	\$	133 \$	152	\$	178	\$ 15	9\$	184	\$	314 \$	318	\$	342	\$	342	\$	372
Depreciation and Amortization		149	162		198	19	95	203		198	230		266		301		339
Other Expenses (freight, export duties)		-4	62		161	15	52	67		156	158		169		170		184
Operating Profit	\$	364 \$	671	\$	827	\$ (12	0)\$	820	\$	1,646 \$	1,637	\$	1,738	\$	1,705	\$	1,840
Operating Margin		10.8%	16.9%		17.5%	-3.3	%	18.8%		16.3%	16.0%		15.8%		15.5%		15.4%
Non-operating Expenses																	
Interest Expense	\$	18 \$	19	\$	26	\$ 3	3\$	32	\$	36 \$	36	\$	36	\$	36	\$	36
Foreign Exchange (Gain) Loss		9	19		-67	3	35	19		0	0		0		0		0
Other Non-operating (Income) Loss		2	-19		41	-2	23	-10		-9	-9		-10		-10		-10
Pre-tax Income	\$	335 \$	652	\$	828	\$ (16	5)\$	778	\$	1,619 \$	1,610	\$	1,712	\$	1,679	\$	1,815
Income Tax Expense	Ś	89 Ś	193	Ś	202	Ś (5)	2) \$	199	Ś	405 Ś	402	Ś	428	Ś	420	Ś	454
Net Income	\$	246 \$	459	\$	625		3) \$	579		1,214 \$	1,207	\$	1,284	\$	1,259	\$	1,361
Net Profit Margin		7.3%	11.6%		13.2%	-3.1		13.3%		12.0%	11.8%		11.7%		11.4%		11.4%
EBITDA	Ś	513 \$	833	\$	1,026	\$ 7.	5\$	1,023	\$	1,843 \$	1,867	\$	2,004	\$	2,006	\$	2,179
EBITDA Margin		15.3%	21.0%		21.7%	2.1		23.4%		18.2%	18.2%		18.2%		18.2%		18.2%

	Ва	lance	Sheet
--	----	-------	-------

		2016A		2017A		2018A		2019A		2020A		2021F		2022F		2023F		2024F		2025F
Assets		20104	•	2017A		20104		2019A		2020A		20216		20225		20256		20246		20236
Current Assets																				
Cash and Cash Equivalents	\$	37	\$	206	Ś	117	Ś	12	Ś	460	\$	1,109	\$	1,996	\$	2,873	Ś	3,862	Ś	4,816
Accounts Receivable	ŝ	182		236	\$	197	\$	159	\$	244	\$		Ś	522		560		561		609
Inventory	\$	432		535	Ś	581	Ś		Ś	576	\$	1,359	\$	1,377		1.478			\$	1,607
Other Short-term Assets	\$	46		54	Ś	93	Ś	151	Ś	53	Ś		Ś		Ś	53	Ś		\$	53
Total Current Assets	\$	698	\$	1,031	\$	987	\$	884	\$	1,332	\$	3,037	\$		\$		\$	5,955		7,086
Non-current Assets																				
Property, Plant and Equipment	\$	3,054	\$	3,536	\$	3,545	\$	3,859	\$	4,035	\$	4,521	\$	5,012	\$	5,540	\$	6,069	\$	6,643
Accumulated Depreciation	\$	(1,801)	Ś	(2,025)	Ś	(2,036)	\$	(2,201)	Ś	(2,383)	\$	(2,580)	Ś	(2,811)		(3,076)		(3,377)		(3,716)
Intangibles	\$	276		584	\$		\$		\$	590	\$,	\$	590		590		590		590
Goodwill	\$	265		563		545			\$	557	\$	557		557		557		557		557
Other Long-term Assets	ŝ	186		(81)		(88)		(94)		341	- i -	341		341		341		341		341
Total Non-current Assets	\$	1,979		2,575		2,529	\$		\$	3,140	\$	3,428	\$	3,689	\$	3,951		4,179		4,414
Total Assets	\$	2,677	\$	3,606	Ş	3,517	\$	3,597	\$	4,472	ş	6,465	Ş	7,637	\$	8,916	Ş	10,134	\$	11,499
Liabilities and Shareholder's Equity																				
Current Liabilities																				
Payables	\$	157	\$	195	\$	191	\$	184	\$	215	\$	480	\$	486	\$	521	\$	522	\$	567
Accruals	\$	141	\$	240	\$	163	\$	119	\$	269	\$	269	\$	269	\$	269	\$	269	\$	269
Short-term Debt	\$	11	\$	-	\$	54	\$	311	\$	313	\$	313	\$	313	\$	313	\$	313	\$	313
Other Short-term Liabilities	\$	33	\$	30	\$	29	\$	32	\$	35	\$	35	\$	35	\$	35	\$	35	\$	35
Total Current Liabilities	\$	341	\$	465	\$	437	\$	645	\$	833	\$	1,097	\$	1,103	\$	1,139	\$	1,139	\$	1,184
Non-current Liabilities																				
Long-term Debt	\$	307	\$	508	\$	508	\$	507	\$	499	\$	499	\$	499	\$	499	\$	499	\$	499
Other Long-term Liabilities	\$	362	\$	457	\$	446	\$	539	\$	670	\$	670	\$	670	\$	670	\$	670	\$	670
Total Non-current Liabilities	\$	669	\$	964	\$	954	\$	1,046	\$	1,169	\$	1,169	\$	1,169	\$	1,169	\$	1,169	\$	1,169
Shareholder's Equity																				
Common Stock	\$	408	\$	438	\$	360	\$	372	\$	379	\$	379	\$	379	\$	379	\$	379	\$	379
Retained Earnings	\$	1,147	\$	1,652	\$	1,641	\$	1,432	\$	2,010	\$		\$	4,904	\$	6,147		7,365	\$	8,685
Other Equity	\$	112		86		125	\$	102		82			\$		\$	82		82	\$	82
Total Shareholder's Equity	\$	1,666	\$	2,176		2,126	\$		\$	2,471		4,199	\$	5,365		6,608	\$	7,826	\$	9,147
Liabilities and Shareholder's Equity	\$	2,677	\$	3,606	\$	3,517	\$	3,597	\$	4,472	\$	6,465	\$	7,637	\$	8,916	\$	10,134	\$	11,499
							_		_											
Check		0		0		0		0		0		0		0		0		0		0

Cash Flow Statement

	2016A	2017A	2018A		2019A		2020A	2021F	2022F	2023F	2024F	2025F
Cash from Operating Activities												
Net Income	\$	459	\$ 625	\$	(113)	\$	579	\$ 1,214	\$ 1,207	\$ 1,284	\$ 1,259	\$ 1,361
Other Non-Cash Expenses	\$	(71)	\$ (267)	\$	(45)	\$	198	\$ -	\$ -	\$ -	\$ -	\$ -
Depreciation and Amortization	\$	162	\$ 198	\$	195	\$	203	\$ 198	\$ 230	\$ 266	\$ 301	\$ 339
Changes in Working Capital	\$	145	\$ 145	\$	49	\$	(13)	\$ (791)	\$ (18)	\$ (104)	\$ (1)	\$ (131)
Cash from Operating Activities	\$	695	\$ 702	\$	87	\$	967	\$ 621	\$ 1,420	\$ 1,446	\$ 1,559	\$ 1,569
Cash from Investing Activities												
Capex	\$	(259)	\$ (286)	\$	(299)	\$	(169)	\$ (486)	\$ (492)	\$ (528)	\$ (528)	\$ (574)
Acquisitions	\$	(406)	\$ 	\$	-	\$	-	\$ -	\$ -	\$ -	\$ -	\$
Other Investing Activities	\$	6	\$ 12	\$	4	\$	4	\$ -	\$ -	\$ -	\$ -	\$
Cash from Investing Activities	\$	(658)	\$ (273)	\$	(295)	\$	(166)	\$ (486)	\$ (492)	\$ (528)	\$ (528)	\$ (574)
Cash from Financing Activities												
Debt Issuance (Repayment)	\$	193	\$ 49	\$	237	\$	(281)	\$ -	\$ -	\$ -	\$ -	\$
Dividends Paid	\$	(22)	\$ (29)	\$	(42)	\$	(41)	\$ (514)	\$ 41	\$ 41	\$ 41	\$ 41
Sale (Repurchase) of Equity	\$	(13)	\$ (521)	\$	(61)	\$	-	\$ -	\$ -	\$ -	\$ -	\$
Other Financing Activities	\$	(19)	\$ (25)	\$	(36)	\$	(33)	\$ -	\$ -	\$ -	\$ -	\$
Cash from Financing Activities	\$	140	\$ (526)	\$	98	\$	(355)	\$ 514	\$ (41)	\$ (41)	\$ (41)	\$ (41)
Effect of Foreign Exchange	\$	(5)	\$ 12	\$	(1)	\$	(8)	\$ -	\$ -	\$ -	\$ -	\$
Opening Cash Balance		37	206		117		12	460	1109	1996	2873	3862
Net Increase (Decrease)		172	-86		-111		438	649	887	877	989	954
Closing Cash Balance	\$ 37 \$	206	\$ 117	\$	12	\$	460	\$ 1,109	\$ 1,996	\$ 2,873	\$ 3,862	\$ 4,816
Check	0	0	0	_	0	_	0	0	0	0	0	0

PPE & Depreciation Schedule

	2016A	2017A	2018A	2019A	2020A	2021F	2022F	2023F	2024F	2025F
Сарех		482.10	9.60	313.60	176.30	485.56	491.78	527.88	528.33	574.10
Capex (as % Revenue)		0.14	0.00	0.07	0.05	0.05	0.05	0.05	0.05	0.05
Open Net PPE		3053.50	3697.50	3905.50	4414.30	4793.60	5476.79	6199.00	6992.48	7821.64
Add Capex		482.10	9.60	313.60	176.30	485.56	491.78	527.88	528.33	574.10
Less Depreciation		161.90	198.40	195.20	203.00	197.63	230.42	265.61	300.83	339.10
Closing Balance	3053.50	3697.50	3905.50	4414.30	4793.60	5476.79	6199.00	6992.48	7821.64	8734.84
Estimated Useful Live Existing Assets 10										
Estimated Useful Life New Assets 15										
PPE End 2020 \$ 1,653										
Depreciation (% PPE)		4.6%	5.6%	5.1%	5.0%	4.4%	4.6%	4.8%	5.0%	5.1%
PPE End 2020		161.90	198.40	195.20	203.00	165.26	165.26	165.26	165.26	165.26
Capex 2020						32.37	32.37	32.37	32.37	32.37
Capex 2021							32.79	32.79	32.79	32.79
Capex 2022								35.19	35.19	35.19
Capex 2023									35.22	35.22
Capex 2024										38.27
Capex 2025										
Total Depreciation		161.90	198.40	195.20	203.00	198	230	266	301	339
Shareholder's Equity										

2010A	2017A	20104	2019A	20204	20216	20225	20256	20246	20235
	1146.50	1639.70	2119.90	2000.30	2564.90	3737.88	4904.07	6147.12	7365.06
	459.40	625.30	-113.00	579.30	1214.08	1207.29	1284.15	1259.03	1361.26
	30.10	-77.90	11.80	6.90	0.00	0.00	0.00	0.00	0.00
	-21.60	-28.60	-41.50	-41.10	-41.10	-41.10	-41.10	-41.10	-41.10
	25.30	-38.60	23.10	19.50	0.00	0.00	0.00	0.00	0.00
1146.50	1639.70	2119.90	2000.30	2564.90	3737.88	4904.07	6147.12	7365.06	8685.21
	1146.50	1146.50 459.40 30.10 -21.60 25.30	1146.50 1639.70 459.40 625.30 30.10 -77.90 -21.60 -28.60 25.30 -38.60	$\begin{array}{ccccccc} 1146.50 & 1639.70 & 2119.90 \\ 459.40 & 625.30 & -113.00 \\ 30.10 & -77.90 & 11.80 \\ -21.60 & -28.60 & -41.50 \\ 25.30 & -38.60 & 23.10 \end{array}$	1146.50 1639.70 2119.90 2000.30 459.40 625.30 -113.00 579.30 30.10 -77.90 11.80 6.90 -21.60 -28.60 -41.50 -41.10 25.30 -38.60 23.10 19.50	1146.50 1639.70 2119.90 2000.30 2564.90 459.40 625.30 -113.00 579.30 1214.08 30.10 -77.90 11.80 6.90 0.00 -21.60 -28.60 -41.50 -41.10 -41.10 25.30 -38.60 23.10 19.50 0.00	1146.50 1639.70 2119.90 2000.30 2564.90 3737.88 459.40 625.30 -113.00 579.30 1214.08 1207.29 30.10 -77.90 11.80 6.90 0.00 0.00 -21.60 -28.60 -41.50 -41.10 -41.10 -41.10 25.30 -38.60 23.10 19.50 0.00 0.00	1146.50 1639.70 2119.90 2000.30 2564.90 3737.88 4904.07 459.40 625.30 -113.00 579.30 1214.08 1207.29 1284.15 30.10 -77.90 11.80 6.90 0.00 0.00 0.00 -21.60 -28.60 -41.50 -41.10 -41.10 -41.10 -41.10 25.30 -38.60 23.10 19.50 0.00 0.00 0.00	1146.50 1639.70 2119.90 2000.30 2564.90 3737.88 4904.07 6147.12 459.40 625.30 -113.00 579.30 1214.08 1207.29 1284.15 1259.03 30.10 -77.90 11.80 6.90 0.00 0.00 0.00 0.00 -21.60 -28.60 -41.50 -41.10 -41.10 -41.10 -41.10 -41.10 25.30 -38.60 23.10 19.50 0.00 0.00 0.00

West Fraser Timber (NYSE:WFG) Discounted Cash Flow

Discounted Cash Flow

Scenario Summaries

	2021F	2022F	2023F		2024F		2025F	TV	
	2021-01-11	2022-01-11	2023-01-11	2	024-01-11	2	025-01-11	2025-01-11	
Enterprise Value									
EBIT	\$ 1,645.70	\$ 1,636.53	\$ 1,738.35	\$	1,704.86	\$	1,840.32		
EBIT(1-t)	\$ 1,234.28	\$ 1,227.40	\$ 1,303.77	\$	1,278.64	\$	1,380.24		
Depreciation and Amortization	\$ 197.63	\$ 230.42	\$ 265.61	\$	300.83	\$	339.10		
Capex	\$ 485.56	\$ 491.78	\$ 527.88	\$	528.33	\$	574.10		
Change in Net Working Capital	\$ (790.88)	\$ (17.87)	\$ (103.67)	\$	(1.31)	\$	(131.46)		
FCFF	\$ 1,737.23	\$ 983.90	\$ 1,145.17	\$	1,052.45	\$	1,276.71		
TV Gordon Growth	\$ 1,737.23	\$ 983.90	\$ 1,145.17	\$	1,052.45	\$	1,276.71	\$ 10,762.60	
TV Multiples	\$ 1,737.23	\$ 983.90	\$ 1,145.17	\$	1,052.45	\$	1,276.71	\$ 10,897.14	

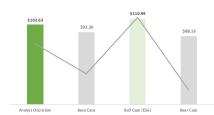
Assumptions		
Current Price Fully Diluted Shares o/s Transaction Date		20
Discount Rate Growth Rate EV/EBITDA multiple		
Less: Debt Plus: Cash	\$ \$	

lesults	
Gordon Growth	
Enterprise Value	\$ 11,288.46
Equity Value	\$ 11,249.26
Equity Value per Share	Ś 102.27
Upside (Downside)	22.27%
Multiples Method	
Enterprise Value	\$ 11,367.81
Equity Value	\$ 11,328.61
Equity Value per Share	\$ 102.99
Upside (Downside)	23.13%

Target Price Upside (Downside)

102.63 22.7%

Analyst Discretion		Bull Case (ESG)	
Gordon Growth	\$ 102.27	Gordon Growth	\$ 110.67
Multiples Method	\$ 102.99	Multiples Method	\$ 111.31
Intrinsic Value	\$ 102.63	Intrinsic Value	\$ 110.99
Upside (Downside)	 22.7%	Upside (Downside)	32.7%
Base Case		Bear Case	
Gordon Growth	\$ 90.90	Gordon Growth	\$ 85.66
Multiples Method	\$ 95.69	Multiples Method	\$ 90.67
Intrinsic Value	\$ 93.30	Intrinsic Value	\$ 88.16
Upside (Downside)	11.5%	Upside (Downside)	5.4%



15.0%
10.0%
5.0%

83.64 110 21-01-11

14.1% 2.0% 5x 498.90 459.70

35.0%

30.0%

25.0% 20.0%

0.0%

West Fraser Timber (NYSE:WFG)

Relative Valuation

Name	Ticker	Market Data				Forward Financial Data				Forward Valuation		
		Price	Shares	Market Cap	Debt	EV	Sales	EBITDA	Earnings	EV/Sales	EV/EBITDA	P/E
ANFOR CORP	CFP CN	21.58	124.64	2689.83	192.87	2882.70	6520.20	871.87	579.80	0.4x	3.3x	
VESTERN FOREST PRODUCTS INC	WEF CN	1.50	346.29	519.43	11.03	530.46	1244.00	141.62	87.55	0.4x	3.7x	
ITERFOR CORP	IFP CN	23.87	63.29	1510.79	311.49	1822.28	2882.25	472.06	311.33	0.6x	3.9x	
EYERHAEUSER CO	WY US	37.55	749.05	28126.64	5100.00	33226.64	8731.50	2451.00	1320.00	3.8x	13.6x	2
TELLA-JONES INC	SJ CN	34.06	64.49	2196.38	474.50	2670.88	2604.38	309.89	212.71	1.0x	8.6x	1
5th Percentile		21.58	64.49	1510.79	192.87	1822.28	2604.38	309.89	212.71	0.4x	3.7x	
Viedian		23.87	124.64	2196.38	311.49	2670.88	2882.25	472.06	311.33	0.6x	3.9x	
75th Percentile		34.06	346.29	2689.83	474.50	2882.70	6520.20	871.87	579.80	1.0x	8.6x	1

ESG-Adjustments

Name	Ticker						
		Reported			1	Forward Valuation	
		Scope 1	Scope 2	Forward Scope 1	Forward Scope 2	Forward Total	GHG/Sales
CANFOR CORP	CFP CN	4.82	0.11	4.82	0.10	4.92	0.00
WESTERN FOREST PRODUCTS INC	WEF CN			196.97	121.70	318.67	0.26
INTERFOR CORP	IFP CN			707.58	87.29	794.87	0.28
WEYERHAEUSER CO	WY US	0.65	0.09	397.29	701.89	1099.18	0.13
STELLA-JONES INC	SJ CN	0.38	0.64	107.85	22.62	130.47	0.05
25th Percentile		0.52	0.10	107.85	22.62	130.47	0.05x
Median		0.65	0.11	196.97	87.29	318.67	0.13x
75th Percentile		2.74	0.37	397.29	121.70	794.87	0.26x

*West Fraser performs well below peers by
(estimated) GHG emissions. Assuming lower GHG
emissions as a percentage of revenue makes a
company more attractive in the market, the multiple
may be adjusted upwards at the analyst's discretion
In this case, the WFG's value is derived using the 75 percentile multiples as the "ESG-adjusted multiples' signalling that the low GHG emissions makes WFG a top performer in the industry with more expected growth than peers.

0.00x

GHG/Sales

Equity Value \$ 6,880.41 Market Value \$ 62.55 Upside (Downside) \$ 81.26

WFG Forward Data

\$ 10,123.86 \$ 1,843.33 \$ 1,214.08

\$ 6,361.54 \$ 7,076.58 \$ 7,203.12

Sales EBITDA Earnings

Valuation EV/Sales EBITDA Earnings

WFG Forward Data

1	ESG-Adjusted Valua	ation
	Forward Total	1.61
	Forward Scope 2	1.02
	Torward Scope 1	0.55

io najastea va	 acion	
EV/Sales	\$ 10,343.16	
EBITDA	\$ 15,848.14	
Earnings	\$ 12,536.29	
Enterprise Value	\$ 12,909.20	
Market Value	\$ 117.36	
Upside (Downside)	\$ 153.34	

Results

Valuation	\$ 6	52.55	25%	Target Price	\$ 103.65
ESG-Adjusted Valuation	\$ 11	17.36	75%	Upside (Downside)	23.9%

West Fraser Timber (NYSE:WFG)

WACC Calculation

Inputs			Results	
Risk-Free Rate Equity Risk Premium		Canada 5-Year Bond Yield as of as of 11/10/2021 Bloomberg's Canada Market Risk Premium as of 11/10/2021	WACC - Calculated WACC - Bloomberg	14.1% 14.2%
Pre-tax Cost of Debt	4.35%	Weighted Average Fixed Coupon as of 09/01/21	, and the second s	
5 Year Average Tax Rate	27.52%	Calculated below	Difference	-0.1%

Unlevered Beta Calculation

Name	Ticker	Levered Beta	Debt (\$USD million)	Debt %	Equity (\$USD million)	Equity %	5-Year Average Tax Rate	Unlevered Beta
CANFOR CORP	CFP CN	2.06	192.87	6.7%	2689.83	93.3%	24.2%	1.96
WESTERN FOREST PRODUCTS INC	WEF CN	1.28	11.03	2.1%	519.43	97.9%	4.0%	1.25
INTERFOR CORP	IFP CN	2.18	311.49	17.1%	1510.79	82.9%	17.2%	1.86
WEYERHAEUSER CO	WY US	1.94	5100.00	15.3%	28126.64	84.7%	13.9%	1.68
STELLA-JONES INC	SJ CN	0.94	474.50	17.8%	2196.38	82.2%	23.5%	0.81
Average		1.68	\$ 1,217.98	11.8%	\$ 7,008.62	88.2%		1.51
West Fraser Timber	WFG	2.063						