

The Greenbrier Companies, Inc.

GBX

Analyst: Nicolas Morand
Sector: Railroads

BUY on GBX

Price Target: \$35.15

Key Statistics as of 03/12/16

Market Price:	\$26.90
Industry:	Railroads Services
Market Cap:	\$769.3 M
52-Week Range:	\$19.89 - \$66.50
Beta:	2.62

Thesis Points:

- Strong financial results beating analyst's estimates
- Low correlation with the current energy crisis
- New revenue streams and a confident management team

Company Description:

The Greenbrier Companies, Inc is a transportation manufacturing company based in Lake Oswego, Oregon. It is the results of the merger of Commercial Metals Company and M.D. Friedman in the 70's, and went public in 1994. This company is specialized in transportsations services, especially railroad cars and marine vessels manufacturing. This company also provide railroad refurbishment services as well as railroad car leasing services.

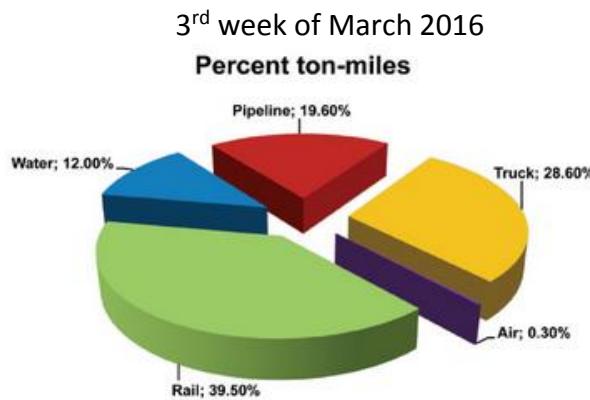


Thesis

Greenbrier has lost nearly a quarter of its value this year, despite strong financial results that has beaten analysts' estimates. This largely unjustified stock drop could be explained by a growing sentiment that U.S. railcars manufacturer will be largely affected by the current energy crisis and the strong dollar. Greenbrier managed to build a diversified backlog and is not totally tied to energy markets. Indeed, only 27% of its backlog is being energy related and tank cars used for crude oil transportation accounts for 11% of its backlog. On the sale side, the firm did not receive any order cancellations, it is well positioned in the U.S. market, by gaining 17% more market share since 2006. Long-term average demand in the U.S is expected to be 50,000 railcars every year, guaranteeing orders for the future. In addition, the new regulation proposed by the U.S Transportation Department concerning tanker cars, if applied, could also strengthen the number of orders for the coming years. Finally, the firm is expanding their international activities, creating new revenue stream for the firm. This bring some stability to the firm as it diversifies its revenue stream and open the door for new markets where demand for railcars are expected to be strong. Given its low correlation with the current energy crisis, its strong financial performance and the firm recent orders, I do believe that this stock represents a good investment opportunity in a mid to long-term strategy.

Industry Outlook

Nowadays, the U.S freight rail network is without any question, the most dynamic transportation system. As you can see on the graph below, according to the U.S Federal Railroad Administration, 39.5% of freight moves are operated via rails.



Indeed, almost everything could be ship via rails from manufacturing goods to commodities such as oil. Railroads are mostly useful to transport raw materials and heavy freight over long distance. This \$60 billion industry consists of 140,000 mile of rails, created more than 220,000 jobs through the country, and is highly beneficial in terms of fuel consumptions, highway fatalities, logistics costs and maintenance costs. Railroads are well implemented inside the country and goods can move anywhere easily. In addition, thanks to the NAFTA agreement, rail networks are connected with Canada and Mexico which makes it easier to ship goods abroad as well as importing goods. More and more investments are made in U.S. transportation infrastructure so as to compete with the future population and demographic challenges. Indeed, we are expected to see an urban growth in the near future as the population continue to grow. Automatically, more freight and passenger will move to these places forcing the railroad companies to offer transportation solutions to answer those challenges. The U.S. government believe that one of the solutions is intermodal cars that will greatly improve transports efficiencies. With recent improvement in facilities and services, intermodal cars will become more competitive in the future. Greenbrier did understand the challenge we are facing and positioned itself to be the market leader in the intermodal railcar production.

Porter's Five Forces

Bargaining power of suppliers: **LOW**

There is a low bargaining power of suppliers. There are many suppliers that can provide raw materials needed to the manufacturing process of railcars. Besides, Greenbrier did acquire one of its

supplier in 2006, which decreased a step further the bargaining power of its suppliers.

Bargaining power of customers: HIGH

There is a high bargaining power of suppliers however. Indeed, there are few buyers of railcars, which is why railcar manufacturer have long-term relationship with their customers so as to assure future orders.

Threat of substitutes: LOW

Railcars remain the most efficient way for good transportation. It represents 39.5% of the freight transportation, the biggest share and should not be forsaken in favor of other transportation mode. Besides, its basic use makes it difficult to replace by a substitute product.

Existing rivalry: High

There are four main railcar manufacturer in the U.S. market in addition to smaller companies that are entering the market. Those firms are specialized on only one type of railcars while companies such as Greenbrier, American Railcar and Trinity are competing for tank cars, intermodal cars and hoppers. There is very little product differentiation in the industry making existing rivalry a real threat.

Barriers to Entry: High

It might not be extremely hard for a new company to enter the market as there is no need for high technological investment. However, as mentioned above, there are very few buyers of railcars which already have long-term relationship with market leaders. Given the very little product differentiation among railcars, it is very unlikely to see a real innovation in railcar that could give a specific advantage to a new company.

Product Portfolio

Greenbrier is operating its business under three main segment. The first one, which represents its main activity as it accounts for 79% of its revenues is the manufacturing activity. The most common

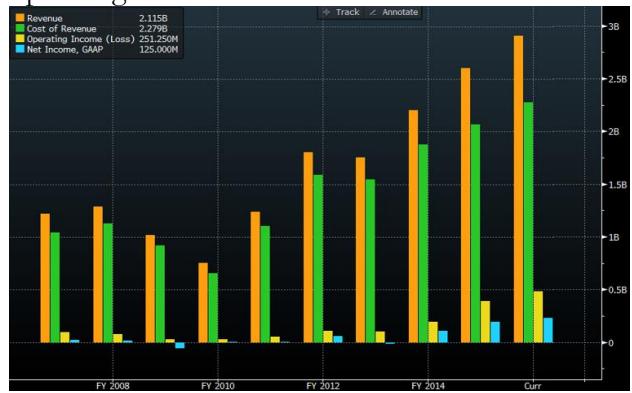
3rd week of March 2016

type of cars among the firm's backlog is conventional railcars. These cars are mostly used to carry various type of good from agricultural product to general merchandise. These conventional railcars are used from various industry to carry their resource in the country. Another type of car that the firm has been developing is tank cars. It has been created to allow its customer in the North American market, the transportation of more than 60 different commodities. Greenbrier is considered as one of the three biggest railcar manufacturers in Europe. In Europe, Greenbrier works with its local customers to manufacture appropriate tank car to answer their needs in terms of quality and security, as it mostly contains light oil and chemical products. The last manufacturing segment is the marine vessel fabrication. Greenbrier manufactures heavy industrial product such as conventional deck barges, double-hull tank barges and other type of barges. Overall, these manufacturing activities recorded a gain of \$2.136 billion for the year 2015, an increase of almost 24% compared to the year 2014. The second segment of Greenbrier's operations, which accounts for 15% of the firm's total revenue is the refurbishment and parts segment. Basically, the firm is engage in the repair and refurbishment of both its own and third parties railcars. This include heavy railcar repair as well as simple maintenance process such as the reconditioning of wheels. Greenbrier did invest its resources on the manufacturing part for 2015 as the refurbishment and parts segment recorded a small gain of \$371 million, compared to the \$495 million the previous year. This represents a decrease of 33% year over year. Finally, the firm's last segment, which represents the remaining 6% of its revenues is the leasing and services segment. Greenbrier own a lease fleet of around 8,000 railcars, from its 36,000 unit's backlog. This enables the firm to offer direct finance lease, mile lease and operating lease to its panel of customers. The leasing segment brought revenues of around \$98 million in 2015, an increase of 15% from the year 2014.

Unjustified drop

Surprisingly, Greenbrier has lost around a quarter of its value in a year. Over year, in Q1 2016, Greenbrier managed to increase its revenue by

62%. The firm's performance represents the fourth straight session of record braking in terms of revenues. During this quarter, earning per shares were announced \$2.15, largely above the \$1.63 of analysts' estimates. Revenues from operations and operating costs are the two main driver of the stock price. The decline of the stock cannot be explained by the revenue from operations. The graph below illustrate the firm's strong financial performance. As you can see, revenues are increasing and outweigh operating costs year over year, leading to a net increase of operating income.



The firm also managed to improve its position toward the industry by gaining some market shares in North America. Indeed, Greenbrier, which represented 13% of the North America market share in 2006 currently own 30% of the market share. It represents the biggest increase of market share in the industry, overweighting its competitors' gain in market share. Greenbrier stock decline can be explain with the fact that investors are mostly concerned about both the number of orders and the firm's exposure to the current energy crisis. Because of the slowdown in energy activities, demand for tank cars carrying crude oil has been automatically slowing. However, over the years, the firm started to diversify its product portfolio and the firm could perfectly manage a slowdown for tank cars orders. Indeed, among its 36,000 units' backlog, around 9,500 are being energy related and among those cars, less than 4,000 are used for crude oil transportation. This proves the low correlation that the firm is having with energy related activities. Other railcars such as boxcars represents a long-term opportunity for Greenbrier. Indeed, boxcars are quickly aging and will need to be replaced soon. The firm is currently focusing on the production of boxcars to fill up the gap that will be created from old boxcars. Regarding the

3rd week of March 2016

analysts' concern about orders, Greenbrier did not face any order cancelations for the year 2016 and is expected to deliver around 22,500 units this year. The firm recently conclude a deal with Saudi Railway Company for the delivery of 1,200 railcars for 2016. Therefore, management is expecting to enter the Saudi Arabian market where stellar large-scale infrastructure project are currently being planned. The firm is expanding its revenue stream internationally, which will bring more diversification and consequently stability to the firm. On May 2015, Greenbrier announced that it had acquired 19.5% ownership stake in Amsted-Maxion Hortolandia, which is the main railcar manufacturer in South America. Furthermore, Greenbrier has the option to acquire an additional 40.5% of ownership by September 2017. This is a strategical move as demand for railcar in the Brazilian market is forecasted to exceed 4,000 units annually. This forecast is calculated based on the country's investment in infrastructure, especially its railway network and an aging fleet where 60% of rail freight are 30 years of older, altering their current efficiency. On the U.S. territory, the recent regulation proposed by the U.S Department of Transportation could also strengthen Greenbrier's order for the future. This rule will make substantial changes so as to improve accident prevention. It consists of the replacement or improvement of older cars declared unsafe, over the next five years, which contains flammable liquid. If this rules is apply by the U.S. government, we could expect an increase in demand or refurbishment for this type of tank cars.

On a pure company side, management decreased its long-term debt to \$326, the lowest level since 2005. With their growth in revenues, this will allow the company to have cash on hand. They will probably use this cash to continue their share buyback program. Indeed, over the last two years, the firm repaid its shareholders nearly \$150 million via both share repurchases and dividends. Furthermore, management has the board's approval to buy back \$100 million shares, which clearly demonstrate that the firm strongly believe its current stock is undervalued by the market. As mentioned earlier, revenues and operating costs are the main driver of the stock price. Total revenues for the year 2015 are recorded at \$2.605 billion, a 15.4% increase compared to the \$2.203 billion in revenues for 2014. EBITDA grew at a faster pace of 41.23% from \$220.8 million in 2010

3rd week of March 2016

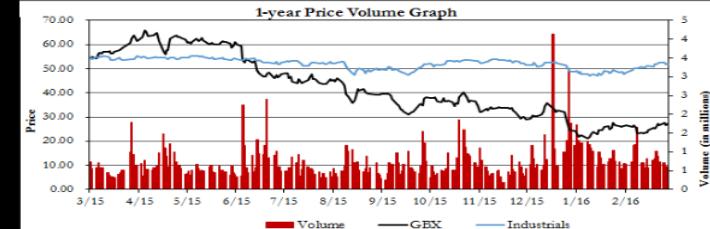
to \$375.7 in 2015. The firm is clearly decreasing its operating expenses overtime creating value for the firm. Another value creation ratio to look at is the ROIC over WACC ratio. As summarize on my pro forma valuation below, we currently have a ratio of 1.78, meaning that the firm is creating value to its shareholders.

Valuation

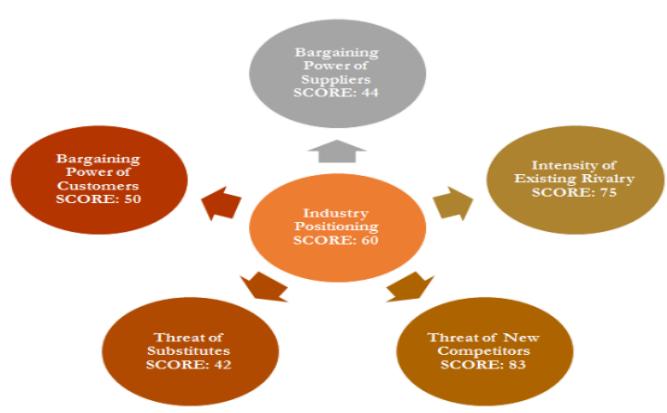
The valuation of the Greenbrier Companies is based on a pro forma that values the firm with a discounted cash flow and focuses on the company's return on invested capital. A summary of the outputs used for this valuation can be found at the end of this paper. Revenue growth are computed to follow analysts' estimate and converging to 3% in the long-term, which is the long-term T-note rate. A country weighted average risk premium has been calculated at 6.45%, a 0.45% increase to the U.S. 6% because of the firm international activities. The corporate tax rate has been calculated at 38.99% using the same method. Other variables used for the valuation can be found in the summary output at the end of the paper. After launching a Monte-Carlo simulation, I calculated an intrinsic value for the stock at \$28.21, a one-year target price of \$35.15 (a 32.25% increase compare to its current price) and a 92.7% probability of a stock price increase.

Conclusion

I do believe that Greenbrier stock's decline is largely unjustified and is currently undervalued. This stock represents a good investment for mid to long-term strategy on a portfolio. The firm's financial performance are strong, it has a very low exposure to the energy crisis, it did not receive any order cancelations and expanding its international activities could increase its number of orders. Management, through its current share repurchase program believes its stock price is undervalued as well. I do believe that the upside potential for this stock is greater than the downside, which is why I do recommend a buy at its current level.

BULLISH
**The Greenbrier Companies,
Inc. (GBX)**
CENTER FOR GLOBAL FINANCIAL STUDIES
Analysis by Nicolas Morand
3/13/2016
Current Price:
\$26.90
Dividend Yield:
1.6%
Intrinsic Value:
\$28.21
Target Price:
\$35.15
Target 1 year Return: 32.25%
Probability of Price Increase: 92.7%


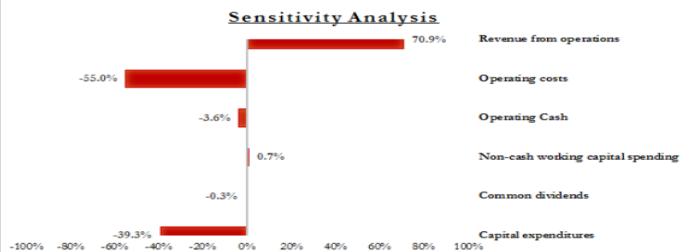
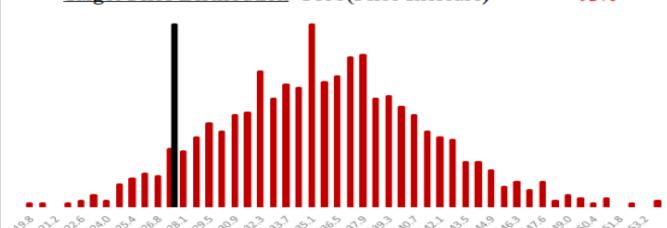
Quarter ending		Past Earnings Surprises	
11/30/2014	-8.97%	Revenue	EBITDA
2/28/2015	2.69%	19.56%	Westinghouse Air Brake Technologies Corporation
5/31/2015	-3.77%	-0.97%	Trinity Industries Inc.
8/31/2015	-6.17%	8.46%	American Railcar Industries, Inc.
11/30/2015	6.64%	26.53%	FreightCar America Inc.
Mean	-1.92%	12.19%	Terex Corporation
Standard error	2.9%	4.8%	Navistar International Corporation
Management		Total compensations growth	
Furman, William	Position	42.81% per annum over 5y	Total return to shareholders
Rittenbaum, Mark	Chairman, Chief Executive Of	6.84% per annum over 5y	6.84% per annum over 5y
Sharp, James	Executive Vice President of	33.68% per annum over 5y	6.84% per annum over 5y
Centurion, Alejandro	Executive Vice President and	23.07% per annum over 3y	30.86% per annum over 3y
McManus, Victoria	Executive Vice President and	35.72% per annum over 5y	6.84% per annum over 5y
Glen, William	Chief Strategic Officer and	14.13% per annum over 5y	6.84% per annum over 5y
	President of Greenbrier Euro	-100% per annum over 5y	-0.12% per annum over 5y
Profitability		Industry (LTM)	
ROIC	GBX (LTM)	12.50%	10.07%
NOPAT Margin	GBX (LTM)	4.38%	8.7%
Revenue/Invested Capital	GBX (LTM)	2.85	1.16
ROE	GBX (LTM)	14.24%	11.13%
Adjusted net margin	GBX (LTM)	3.46%	7.8%
Revenue/Adjusted Book Value	GBX (LTM)	4.12	1.42
Invested Funds		Industry (LTM)	
Total Cash/Total Capital	GBX (LTM)	10.6%	12%
Estimated Operating Cash/Total Capital	GBX (LTM)	9.0%	N/A
Non-cash working Capital/Total Capital	GBX (LTM)	15.4%	20%
Invested Capital/Total Capital	GBX (LTM)	73.7%	87%
Capital Structure		Industry (LTM)	
Total Debt/Common Equity (LTM)	GBX (LTM)	0.78	0.40
Cost of Existing Debt	GBX (LTM)	3.95%	13.19%
Estimated Cost of new Borrowing	GBX (LTM)	1.79%	12.17%
CGFS Risk Rating	GBX (LTM)	AAA	BBB
Unlevered Beta (LTM)	GBX (LTM)	1.91	1.16
WACC	GBX (LTM)	12.52%	9.51%

Porter's 5 forces (scores are out of 100)

Description
The Greenbrier Companies, Inc. designs, manufactures, and markets railroad freight car equipment in North America and Europe.

General Information

Sector	Industrials
Industry	Machinery
Last Guidance	November 3, 2015
Next earnings date	April 3, 2016
Estimated Country Risk Premium	6.45%
Effective Tax rate	39%
Effective Operating Tax rate	38%

Market Data	
Market Capitalization	\$769.25
Daily volume (mil)	0.61
Shares outstanding (mil)	28.60
Diluted shares outstanding (mil)	33.04
% shares held by institutions	96%
% shares held by investments Managers	74%
% shares held by hedge funds	11%
% shares held by insiders	4.59%
Short interest	25.05%
Days to cover short interest	7.34
52 week high	\$66.50
52-week low	\$19.89
Levered Beta	2.62
Volatility	54.54%

Target Price Distribution--Prob(Price Increase)= 93%

Valuation

Period	Revenue growth
Base Year	31.9%
11/30/2016	-14.7%
11/30/2017	-12.9%
11/30/2018	-11.1%
11/30/2019	-9.4%
11/30/2020	-7.6%
11/30/2021	-5.8%
11/30/2022	-4.1%
11/30/2023	-2.3%
11/30/2024	-0.5%
11/30/2025	1.2%

Period	Invested Capital
Base Year	\$742.68
11/30/2016	\$695.05
11/30/2017	\$857.63
11/30/2018	\$904.24
11/30/2019	\$1,104.29
11/30/2020	\$1,328.11
11/30/2021	\$1,314.97
11/30/2022	\$1,312.24
11/30/2023	\$1,335.59
11/30/2024	\$1,378.84
11/30/2025	\$1,437.71

Period	Net Claims
Base Year	\$287.75
11/30/2016	\$3.44
11/30/2017	\$236.24
11/30/2018	\$436.83
11/30/2019	\$609.57
11/30/2020	\$762.81
11/30/2021	\$902.91
11/30/2022	\$1,034.86
11/30/2023	\$1,162.64
11/30/2024	\$1,289.56
11/30/2025	\$1,418.48

Period	Price per share
Base Year	\$26.51
11/30/2016	\$33.74
11/30/2017	\$40.29
11/30/2018	\$46.70
11/30/2019	\$53.09
11/30/2020	\$59.56
11/30/2021	\$66.16
11/30/2022	\$72.93
11/30/2023	\$79.87
11/30/2024	\$86.99
11/30/2025	\$94.27