

Company Outlook: Wabtec Corporation

Yale School of Management

A wonderful business for an equally wonderful price

We recommend investors who currently own the stock to hold on to their positions.

Our APV valuation yields a per-share value of \$73.77, which is 8.6% lower than the current market price.

Despite downbeat earnings and future acquisition risks, we believe the company's core franchise and market position make the company a stock to hold on to.

FY 2017 net income will rise to \$384 million, or \$3.92 a share following the acquisition of French competitor, Faiveley Transport.

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Recommendation: HOLD

Please see the disclaimer at the back of this report for important information.

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Executive Summary

Wabtec (Westinghouse Air Brake Technologies Corporation), one of the world's largest suppliers of equipment, systems, and services for freight and transit rail, has flexed the power of its franchise over the past fifteen years. Since 2000, the company's book value has compounded at a rate of 16.3% per year, its net income has grown at 13.2%, and its stock price has soared at rate of 13.9%. This boom made Wabtec one of the only American companies to see its stock price increase every year for 14 years from 2001 to 2014, before finally falling 18.5% in 2015.

After reaching an all-time high of \$101.53 in May 2015, the stock fell nearly 40% to \$62.07 in February 2016 after the crude-by-rail boom went bust and railcar manufacturing (a key driver of demand for Wabtec's products) collapsed. Despite falling earnings, the stock rebounded to around \$80 a share in mid-2016 where it has remained for the past year.

Investors considering to invest in this company should note that Wabtec's franchise remains strong. The company produces a vast array of parts and systems that go into the manufacturing and maintenance of freight and transit railcars and locomotives. With approximately 50% market share in North America, Wabtec's parts are installed in hundreds of thousands of cars, giving the company a tremendous economic moat. Furthermore, it operates in a near duopoly, with **New York Air Brake** (a subsidiary of the German conglomerate **Knorr-Bremse**) being its only major competitor in the United States.

Wabtec's outsized returns in the past stem from its economic moat that prospered over this past bullish period for the rail industry. For a while, investors forgot that Wabtec was a cyclical stock. The recession was masked by favorable positive train control (PTC) regulation that mandated companies purchase systems that Wabtec sold, and later by the crude-by-rail boom. Yet as railcar and locomotive manufacturing now faces headwinds, investors have been reminded that despite its dazzling growth and acquisitions, **Wabtec remains a cyclical company. Net income fell 23.5% in 2016.**

Another concern is that the company's business model depends on acquisitions for top line revenue growth. Wabtec has spent more than \$2,500 million on 18 acquisitions over the past five years. While many companies have succeeded with an acquisition-based strategy, investors should scrutinize the acquisitions that Wabtec makes. Most recently, Wabtec purchased a French competitor, Faiveley Transport, for \$1,700 million, representing a premium of over 30% to the market price. While we accept management's argument that synergies do in fact exist, **purchasing assets at double-digit premiums to the market price is not a sound long-term strategy.**

These acquisitions have transformed Wabtec's balance sheet. Goodwill and other intangible assets have ballooned to 47.6% of total assets. Acquisitions at these rich prices may prove to be unwise if the current railcar slump continues. During the last period of railcar turmoil (early 2000s), Wabtec wrote down \$62 million, or over 30% of its goodwill (though this was also in part due to the adoption of SFAS No. 142 Goodwill & Other Intangible Assets).

Despite these earnings and acquisition headwinds, we believe the company's core franchise will allow it to steer through these risks.

Although the most recent boom in railcars is now over, it did grow the company's install base, providing it with ample opportunity for maintenance and replacement revenues for years to come. Additionally, the company has been able to grow earnings internationally where strong growth opportunities remain in both Western Europe and Asia. The Faiveley Transport acquisition (though expensive) did represent a strategic pivot to the European transport market that has demonstrated resilience in face of anemic growth on the continent. Thus, despite the headwinds, Wabtec's core franchise remains bright.

The dilemma facing value investors eyeing the stock is that the company lacks a clear investment catalyst. **Wabtec is a strong franchise that will earn excess returns on equity (ROE has averaged 14.7% since 2001), but with that wonderful business comes a wonderful price of 24x earnings.** The current earnings and acquisition headwinds, while important, do not constitute a major threat to Wabtec's core franchise. Even on a technical level, the bulls riding the 14-year rally were washed from the stock two years ago, and there have been no major price movements in over a year.

Without a clear catalyst or reason for a mispricing, we are not surprised when we find that the market price fairly reflects the intrinsic value of the business. **Wabtec is a wonderful business, but we are not the first to see that. There seems to be no glaring asymmetry between the risk and return of this investment, and we therefore recommend a hold.**

To investors considering to sell their positions, we reiterate that we believe the hold is the right call. Although the stock offers no asymmetric payoff, we are convinced that it will earn a decent return over time. Given the high multiples other securities are currently trading at, we believe more promising opportunities than Wabtec are hard to find and **it would be unwise to sell and trigger tax expense unless a more compelling opportunity presented itself.** Without a more compelling alternative, we recommend investors currently holding the stock sit tight and continue reaping the benefits of Wabtec's economic moat. Despite the headwinds facing the company, Wabtec's core franchise makes the company a stock to hold on to.

Company Overview

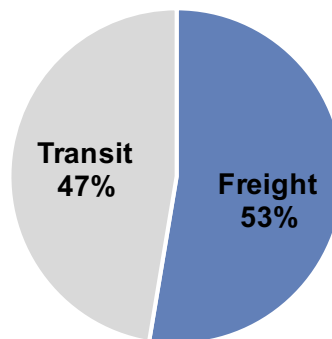
Introduction. Dating back to Westinghouse Air Brake in 1869, Wabtec Corporation is a leading supplier of equipment, systems, and services for freight and transit rail worldwide. The company in 2016 had annual sales of nearly \$3,000 million and currently has a market capitalization of \$7,800 million. The company has had a meteoric rise over the past fifteen years. Back in 2000, net sales were \$800 million and the company's market capitalization was a mere \$700 million. Wabtec holds an approximate 50% market share in North America (which represents 60% of revenue) with its only major competitor being **New York Air Brake Company**, a subsidiary of **Knorr-Bremse**. This market share has remained relatively constant over the past fifteen years. The company also frequently engages in acquisitions to grow revenue, most recently acquiring a French rival, Faiveley Transport, for \$1,700 million in order to grow its European operations.

Company Divisions

Overview. The company has two major divisions, Freight and Transit which represent 53% and 47% of revenue, respectively.

Exhibit 1: Net Sales by Division

As of December 2016. Does not include recent acquisition of Faiveley.



Source: Wabtec 2016 10-K

Exhibit 2: Net Sales and Operating Income by Division

Dollar amounts in thousands. Does not include recent acquisition of Faiveley.

	Freight Segment	Transit Segment	Corporate Activities and Elimination	Total
Sales to external customers	\$ 1,543,098.0	\$ 1,388,090.0	\$ -	\$ 2,931,188.0
Intergement sales/(elimination)	\$ 39,519.0	\$ 9,393.0	\$ (48,912.0)	\$ -
Total Sales	\$ 1,582,617.0	\$ 1,397,483.0	\$ (48,912.0)	\$ 2,931,188.0
Income (loss) from operations	\$ 344,455.0	\$ 171,446.0	\$ (57,540.0)	\$ 458,361.0
Interest expense and other, net	\$ -	\$ -	\$ (45,524.0)	\$ (45,524.0)
Income (loss) from operations before income taxes	\$ 344,455.0	\$ 171,446.0	\$ (103,064.0)	\$ 412,837.0
Depreciation and amortization*	\$ 36,519.0	\$ 31,545.0	\$ 1,731.0	\$ 69,795.0
Capital expenditures	\$ 22,726.0	\$ 20,987.0	\$ 6,503.0	\$ 50,216.0

*Total depreciation expense was \$47,100.0

Source: Wabtec 2016 10-K

Freight Segment. The freight segment manufactures and services components for new and existing locomotives and freight cars, in addition to providing services and systems (such as positive train control). Freight revenues represented 53% of sales and two thirds of operating income in 2016 (note these results do not include the recent acquisition of Faiveley). Customers include publicly traded railroads, leasing companies, and railcar & locomotive manufacturers.

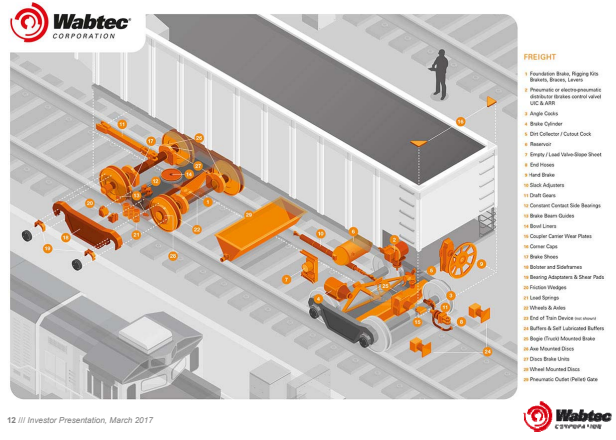
Exhibit 3: Product Offerings for Freight Segment

Slides from March 2017 Investor Presentation.

/// FREIGHT SEGMENT: Locomotive



/// FREIGHT SEGMENT: Freight Car



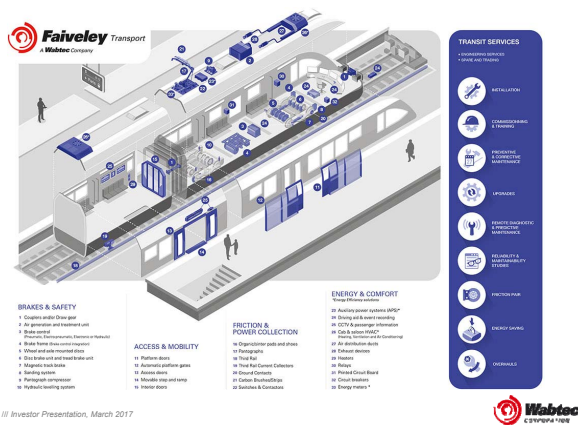
Source: Wabtec March 2017 Investor Presentation

Transit Segment. Wabtec has rebranded its transit segment as Faiveley Transport, following the acquisition of Faiveley. Transit mainly manufactures and services components for transit cars, subways, and buses. Transit revenues represented 47% of sales and about one third of operating income in 2016 (excluding the acquisition of Faiveley). Customers include public transit authorities and municipalities.

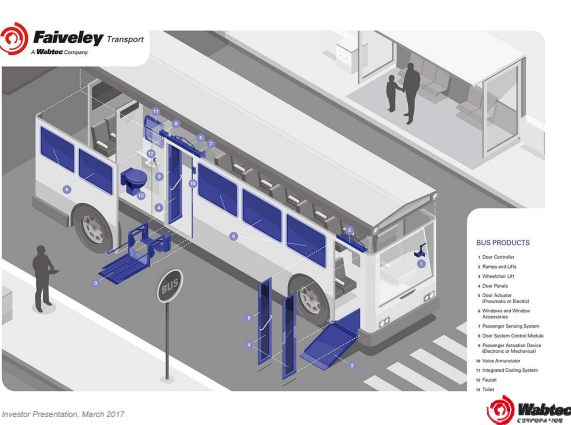
Exhibit 4: Product Offerings for Transit Segment

Slides from March 2017 Investor Presentation.

/// TRANSIT SEGMENT: Transit Cars



/// TRANSIT SEGMENT: Buses



Source: Wabtec March 2017 Investor Presentation

Product Types. Wabtec classifies nearly half of its sales under Speciality Products and Electronics. Over the past five years, the most sales growth has been with Remanufacturing and Speciality Products while the traditional brake product has lagged.

Exhibit 5: Historical Sales by Product Type

Growth in brake products has lagged other product types over the past five years.

	2016	2015	2014	2013	2012	2011 5-Year CAGR
Specialty Products & Electronics	\$ 1,374,580.0	\$ 1,733,881.0	\$ 1,393,955.0	\$ 1,041,771.0	\$ 1,094,148.0	\$ 880,030.0 9.3%
Brake Products	\$ 588,081.0	\$ 627,552.0	\$ 662,336.0	\$ 567,730.0	\$ 527,399.0	\$ 497,968.0 3.4%
Remanufacturing, Overhaul & Build	\$ 559,284.0	\$ 606,624.0	\$ 618,885.0	\$ 655,387.0	\$ 496,883.0	\$ 331,787.0 11.0%
Transit Products	\$ 276,124.0	\$ 189,581.0	\$ 201,913.0	\$ 204,115.0	\$ 197,634.0	\$ 195,251.0 7.2%
Other	\$ 133,119.0	\$ 150,360.0	\$ 167,365.0	\$ 97,389.0	\$ 75,058.0	\$ 62,601.0 16.3%
Total	\$ 2,931,188.0	\$ 3,307,998.0	\$ 3,044,454.0	\$ 2,566,392.0	\$ 2,391,122.0	\$ 1,967,637.0 8.3%

Source: Wabtec 2016 10-K

Acquisitions

Faiveley Transport. Wabtec acquired complete control over Faiveley Transport in March 2017, following a drawn-out tender offer by Wabtec at €100 a share (with another option for Wabtec preferred shares). With a purchase price of approximately \$1,700 million, the acquisition represented a 30% premium to the market price.

Faiveley, like Wabtec, produces and services many components used in transit rail. 57% of Faiveley's sales are in Europe, giving Wabtec greater presence in the European market.

Exhibit 6: Income Statement for Faiveley Transport

Amounts in thousands EUR. As of March 2016.

	2015	2014
Net Sales	€ 1,105,184.0	€ 1,048,423.0
Cost of Sales	€ (824,062.0)	€ (794,062.0)
Gross profit	€ 281,122.0	€ 254,361.0
Administrative costs	€ (102,460.0)	€ (88,997.0)
Sales and marketing costs	€ (53,457.0)	€ (46,667.0)
Research and development costs	€ (18,405.0)	€ (17,019.0)
Other operating income	€ 4,288.0	€ 6,797.0
Other expenses	€ (25,445.0)	€ (18,084.0)
Profit from recurring operations	€ 85,643.0	€ 90,391.0
Restructuring costs	€ (6,814.0)	€ (1,597.0)
Gain/(loss) on disposal of property, plant and equipment	€ (38.0)	€ (66.0)
Operating Profit	€ 78,791.0	€ 88,728.0
Share of profit of joint ventures	€ 5,561.0	€ 6,551.0
Net cost of financial debt	€ (9,890.0)	€ (10,970.0)
Other financial income	€ 39,574.0	€ 33,097.0
Other financial expenses	€ (36,846.0)	€ (35,994.0)
Profit before tax	€ 77,190.0	€ 81,412.0
Income tax expense	€ (21,189.0)	€ (28,535.0)
Net profit	€ 56,001.0	€ 52,877.0
Net profit attributable to minority interests	€ 4,711.0	€ (2,769.0)
Net profit, group share	€ 51,290.0	€ 55,646.0
Weighted average diluted shares outstanding	14,683,359	14,417,922
Diluted Earnings per Share	€ 3.50	€ 3.86

Source: Faiveley 2015/16 Registration Document.

The acquisition price of €100 a share represented more than 28x 2015/16 earnings. Management expects "long-term annual synergies of at least \$50 million" to be achieved in three years. Nevertheless, Wabtec paid a hefty premium for Faiveley's European exposure that transforms the Wabtec balance sheet.

The purchase price of Faiveley adds \$1,200 million of goodwill to Wabtec's balance sheet, bringing goodwill to 32% of total assets. The large exposure to intangible assets leads tangible book value per share to be \$(9.71).

While high levels of goodwill are not intrinsically negative, they do pose a risk to future earnings if acquisitions fail to live up to high expectations.

Exhibit 7: Balance Sheet with Faiveley Assets Acquired

Dollar amounts in thousands. As of December 2016. Includes Faiveley Acquisition.

	2016	% of Total	Assets Acquired	% of Total
ASSETS				
Cash and cash equivalents	\$ 398,484.0	6%	\$ 178,318.0	6%
Accounts receivable	\$ 667,596.0	10%	\$ 385,754.0	13%
Unbilled accounts receivable	\$ 274,912.0	4%	\$ -	0%
Inventories	\$ 658,510.0	10%	\$ 207,151.0	7%
Deposits in escrow	\$ 744,748.0	11%	\$ -	0%
Other current assets	\$ 123,381.0	2%	\$ 66,152.0	2%
Total current assets	\$ 2,867,631.0	44%	\$ 837,375.0	29%
Property, plant and equipment	\$ 912,230.0	14%	\$ 161,663.0	6%
Accumulated depreciation	\$ (393,854.0)	-6%	\$ -	0%
Property, plant and equipment, net	\$ 518,376.0	8%	\$ 161,663.0	6%
Goodwill	\$ 2,078,765.0	32%	\$ 1,188,296.0	41%
Other intangibles, net	\$ 1,053,860.0	16%	\$ 590,378.0	20%
Other noncurrent assets	\$ 62,386.0	1%	\$ 141,756.0	5%
Total Assets	\$ 6,581,018.0		\$ 2,919,468.0	
LIABILITIES				
Accounts payable	\$ 530,211.0			
Customer deposits	\$ 256,591.0			
Accrued compensation	\$ 145,324.0			
Accrued warranty	\$ 123,190.0			
Current portion of long-term debt	\$ 129,809.0			
Commitment and contingencies	\$ 344.0			
Other accrued liabilities	\$ 261,170.0			
Total current liabilities	\$ 1,446,639.0			
Long-term debt	\$ 1,762,967.0			
Accrued postretirement and pension benefits	\$ 110,597.0			
Deferred income taxes	\$ 245,680.0			
Commitment and contingencies	\$ 956.0			
Accrued warranty	\$ 15,802.0			
Other long-term liabilities	\$ 21,552.0			
Total Liabilities	\$ 3,604,193.0			
SHAREHOLDERS' EQUITY				
Preferred stock, 1,000,000 shares authorized, no shares	\$ -			
Common stock, \$.01 par value; 200,000,000 shares authorized; 132,349,534 shares issued and 95,425,432 and 91,836,106 outstanding at December 31, 2016 and December 31, 2015, respectively	\$ 1,323.0			
Additional paid-in capital	\$ 869,951.0			
Treasury stock, at cost, 36,924,102 and 40,513,428 shares at December 31, 2016 and December 31, 2015,	\$ (838,950.0)			
Retained earnings	\$ 2,553,258.0			
Accumulated other comprehensive loss	\$ (379,605.0)			
Total Westinghouse Air Brake Technologies Corporation shareholders' equity	\$ 2,205,977.0			
Non-controlling interest	\$ 770,848.0			
Total Equity	\$ 2,976,825.0			
Number of Common Shares Outstanding	95,425			
Book Value per Share	\$ 23.12			
Tangible Book Value per Share	\$ (9.71)			

Source: Wabtec 2016 10-K

Other Acquisitions. Over the past five years, Wabtec has spent over \$2,500 million on 18 acquisitions. Faiveley Transport represented more than 65% of total transaction volume. Similar to the Faiveley deal, **goodwill represents on average 38.5% of total assets acquired while total intangibles represent 61.5%. The premiums Wabtec is paying poses a threat to future earnings if future acquisitions do not pan out as planned.**

Exhibit 8: Past Five Years of Wabtec Acquisitions

Dollar amounts in thousands.

Company	Purchase Price	Total Assets Acquired	Goodwill	% Goodwill of Total	Other Intangible Assets	% Other Intangible of Total	% Intangible of Total	Date Acquired
Faiveley Transport	\$ 1,700,000.0	\$ 2,919,468.0	\$ 1,188,296.0	40.7%	\$ 601,278.0	20.6%	61.3%	Feb 2017
Workhorse Rail LLC	\$ 44,291.0	\$ 53,384.0	\$ 23,052.0	43.2%	\$ 20,900.0	39.2%	82.3%	Dec 2016
Precision Turbo & Engine	\$ 13,846.0	\$ 14,562.0	\$ 3,861.0	26.5%	\$ 5,200.0	35.7%	62.2%	Nov 2016
Unitrac Railroad Materials	\$ 14,378.0	\$ 16,522.0	\$ 1,388.0	8.4%	\$ 1,230.0	7.4%	15.8%	May 2016
Relay Monitoring Systems	\$ 18,710.0	\$ 22,459.0	\$ 8,855.0	39.4%	\$ 8,622.0	38.4%	77.8%	Oct 2015
Track IQ	\$ 9,312.0	\$ 10,517.0	\$ 6,490.0	61.7%	\$ 3,246.0	30.9%	92.6%	Oct 2015
Railroad Controls L.P.	\$ 78,011.0	\$ 83,747.0	\$ 14,787.0	17.7%	\$ 40,403.0	48.2%	65.9%	Feb 2015
C2CE Pty Ltd.	\$ 25,111.0	\$ 30,470.0	\$ 15,114.0	49.6%	\$ 3,654.0	12.0%	61.6%	Sep 2014
Dia-Frag	\$ 70,641.0	\$ 86,145.0	\$ 42,955.0	49.9%	\$ 26,150.0	30.4%	80.2%	Aug 2014
Fandstan Electric Group	\$ 199,404.0	\$ 297,119.0	\$ 60,078.0	20.2%	\$ 50,598.0	17.0%	37.2%	Jun 2014
Longwood Industries	\$ 83,863.0	\$ 104,526.0	\$ 28,272.0	27.0%	\$ 39,440.0	37.7%	64.8%	Sep 2013
Turbonetics Holdings	\$ 23,183.0	\$ 28,973.0	\$ 11,309.0	39.0%	\$ 11,140.0	38.4%	77.5%	Jul 2013
Transdyne	\$ 2,402.0	\$ 2,630.0	\$ 500.0	19.0%	\$ 985.0	37.5%	56.5%	Feb 2013
Napier Turbochargers	\$ 112,341.0	\$ 129,906.0	\$ 67,045.0	51.6%	\$ 40,583.0	31.2%	82.9%	Jan 2013
LH Group	\$ 48,120.0	\$ 63,712.0	\$ 20,100.0	31.5%	\$ 18,612.0	29.2%	60.8%	Oct 2012
Winco Equipamentos	\$ 3,656.0	\$ 9,927.0	\$ 3,800.0	38.3%	\$ 2,671.0	26.9%	65.2%	Jul 2012
Tec Tran Corp.	\$ 8,318.0	\$ 8,788.0	\$ 1,700.0	19.3%	\$ 5,017.0	57.1%	76.4%	Jul 2012
Mors Smitt Holding	\$ 89,988.0	\$ 114,712.0	\$ 42,900.0	37.4%	\$ 36,830.0	32.1%	69.5%	Jun 2012
Total	\$ 2,545,575.0	\$ 3,997,567.0	\$ 1,540,502.0	38.5%	\$ 916,559.0	22.9%	61.5%	2012-2017
Wabtec (including all acquisitions)	\$	\$ 6,581,018.0	\$ 2,078,765.0	31.6%	\$ 1,053,860.0	16.0%	47.6%	

Source: Wabtec 10-K filings

Sales Growth by Country. Wabtec's acquisition strategy has so far succeeded in generating high single-digit overall sales growth over the past five years and has exposed the company to new markets. Strong growth in Germany, France, and the United Kingdom demonstrate that opportunities exist in developed nations, and strong results from China point to even more opportunity for Wabtec in emerging markets.

Exhibit 9: Historical Sales by Country

Dollar amounts in thousands.

Country	2016	2015	2014	2013	2012	2011 5-Year CAGR	
United States	\$ 1,362,255.0	\$ 1,754,924.0	\$ 1,537,002.0	\$ 1,336,604.0	\$ 1,199,294.0	\$ 1,051,372.0	5.3%
United Kingdom	\$ 322,563.0	\$ 368,505.0	\$ 362,855.0	\$ 297,139.0	\$ 255,326.0	\$ 182,653.0	12.0%
Canada	\$ 206,258.0	\$ 204,674.0	\$ 175,561.0	\$ 167,417.0	\$ 194,493.0	\$ 157,379.0	5.6%
Mexico	\$ 183,583.0	\$ 190,034.0	\$ 174,218.0	\$ 128,184.0	\$ 139,089.0	\$ 104,384.0	12.0%
China	\$ 106,357.0	\$ 100,586.0	\$ 101,889.0	\$ 49,952.0	\$ 28,886.0	\$ 20,641.0	38.8%
Germany	\$ 98,364.0	\$ 92,422.0	\$ 86,792.0	\$ 54,869.0	\$ 38,574.0	\$ 33,452.0	24.1%
Australia	\$ 82,099.0	\$ 86,809.0	\$ 113,668.0	\$ 141,056.0	\$ 191,994.0	\$ 106,254.0	-5.0%
France	\$ 66,287.0	\$ 45,565.0	\$ 41,469.0	\$ 37,925.0	\$ 42,310.0	\$ 35,199.0	13.5%
Brazil	\$ 51,493.0	\$ 84,595.0	\$ 83,906.0	\$ 78,532.0	\$ 96,620.0	\$ 70,786.0	-6.2%
Italy	\$ 45,771.0	\$ 38,164.0	\$ 42,865.0	\$ 42,702.0	\$ 39,462.0	\$ 50,412.0	-1.9%
Netherlands	\$ 25,452.0	\$ 25,869.0	\$ 19,452.0	\$ 9,921.0	\$ 1,152.0	not segmented	116.8%
Other international	\$ 380,706.0	\$ 315,851.0	\$ 304,777.0	\$ 222,091.0	\$ 163,922.0	\$ 155,105.0	19.7%
Total	\$ 2,931,188.0	\$ 3,307,998.0	\$ 3,044,454.0	\$ 2,566,392.0	\$ 2,391,122.0	\$ 1,967,637.0	8.3%

Source: Wabtec 10-K filings

Financial Analysis

Income Statement

In 2016, revenues declined 11.4% and net income fell 23.5%. Gross margin was 31.5% reflecting continued improvement over the 16 year average of 28.2% for the company. The effective tax rate fell to 24.1% from 31.9% a year earlier due to a drop in the French corporate tax rate from 33.3% to 28.0% over the period 2017 to 2020. Without this tax cut, net income would have fallen 31.6%. The jump in interest expense is due to the over \$1,000 million jump in long-term debt to help finance the acquisition of Faiveley.

Exhibit 10: Income Statement

Dollar amounts in thousands (except per share figures).

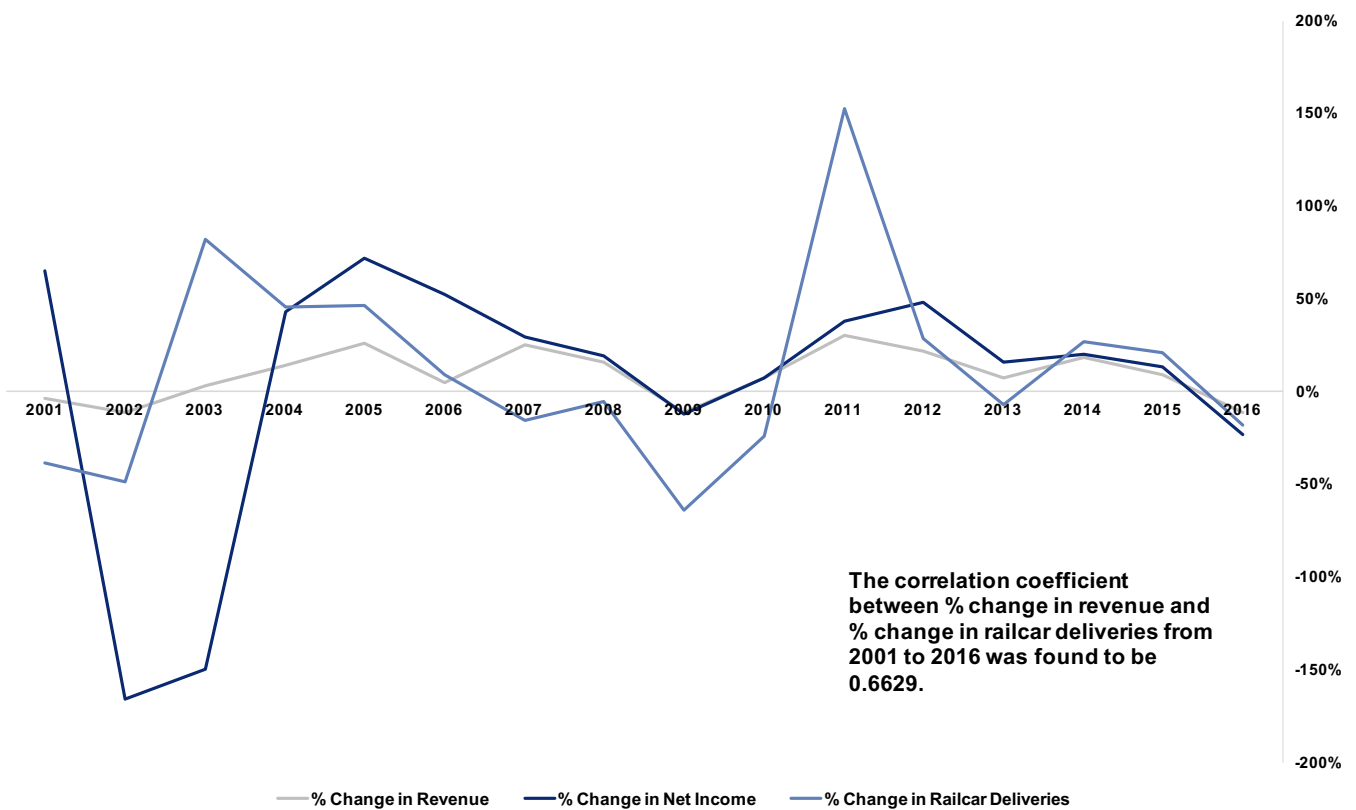
	2016	2015	2014
Net Sales	\$ 2,931,188.0	\$ 3,307,998.0	\$ 3,044,454.0
Cost of Sales	\$ (2,006,949.0)	\$ (2,260,182.0)	\$ (2,108,472.0)
Gross profit	\$ 924,239.0	\$ 1,047,816.0	\$ 935,982.0
Selling, general and administrative expenses	\$ (371,805.0)	\$ (347,373.0)	\$ (324,539.0)
Engineering expenses	\$ (71,375.0)	\$ (71,213.0)	\$ (61,886.0)
Amoritzation expenses	\$ (22,698.0)	\$ (21,663.0)	\$ (22,448.0)
Total operating expenses	\$ (465,878.0)	\$ (440,249.0)	\$ (408,873.0)
Income from operations	\$ 458,361.0	\$ 607,567.0	\$ 527,109.0
Other income and expenses			
Interest expense, net	\$ (42,561.0)	\$ (16,888.0)	\$ (17,574.0)
Other (expense) income, net	\$ (2,963.0)	\$ (5,311.0)	\$ (1,680.0)
Income from operations before income taxes	\$ 412,837.0	\$ 585,368.0	\$ 507,855.0
Income tax expense	\$ (99,433.0)	\$ (186,740.0)	\$ (156,175.0)
Net Income	\$ 313,404.0	\$ 398,628.0	\$ 351,680.0
Less: Net income attributable to noncontrolling interest	\$ (8,517.0)	\$ -	\$ -
Net income attributable to Wabtec shareholders	\$ 304,887.0	\$ 398,628.0	\$ 351,680.0
Weighted average diluted shares outstanding	91,141,000	97,006,000	96,885,000
Diluted Earnings per Share	\$ 3.34	\$ 4.10	\$ 3.62

Source: Wabtec 2016 10-K

Correlation between Revenues & Railcar Deliveries. As the recent downturn has demonstrated, Wabtec is still very much a cyclical company despite its economic moat. We plotted the percent change in revenues, percent change in North American railcar deliveries, and percent change in net income and found all three were correlated. The strongest correlation was between percent change in revenues and percent change in North American railcar deliveries, which had a correlation coefficient of 0.6629.

Exhibit 11: Correlation between % Changes in Revenues, Railcar Deliveries, and Net Income

The correlation between revenues and railcar deliveries argues that Wabtec is still a cyclic company.

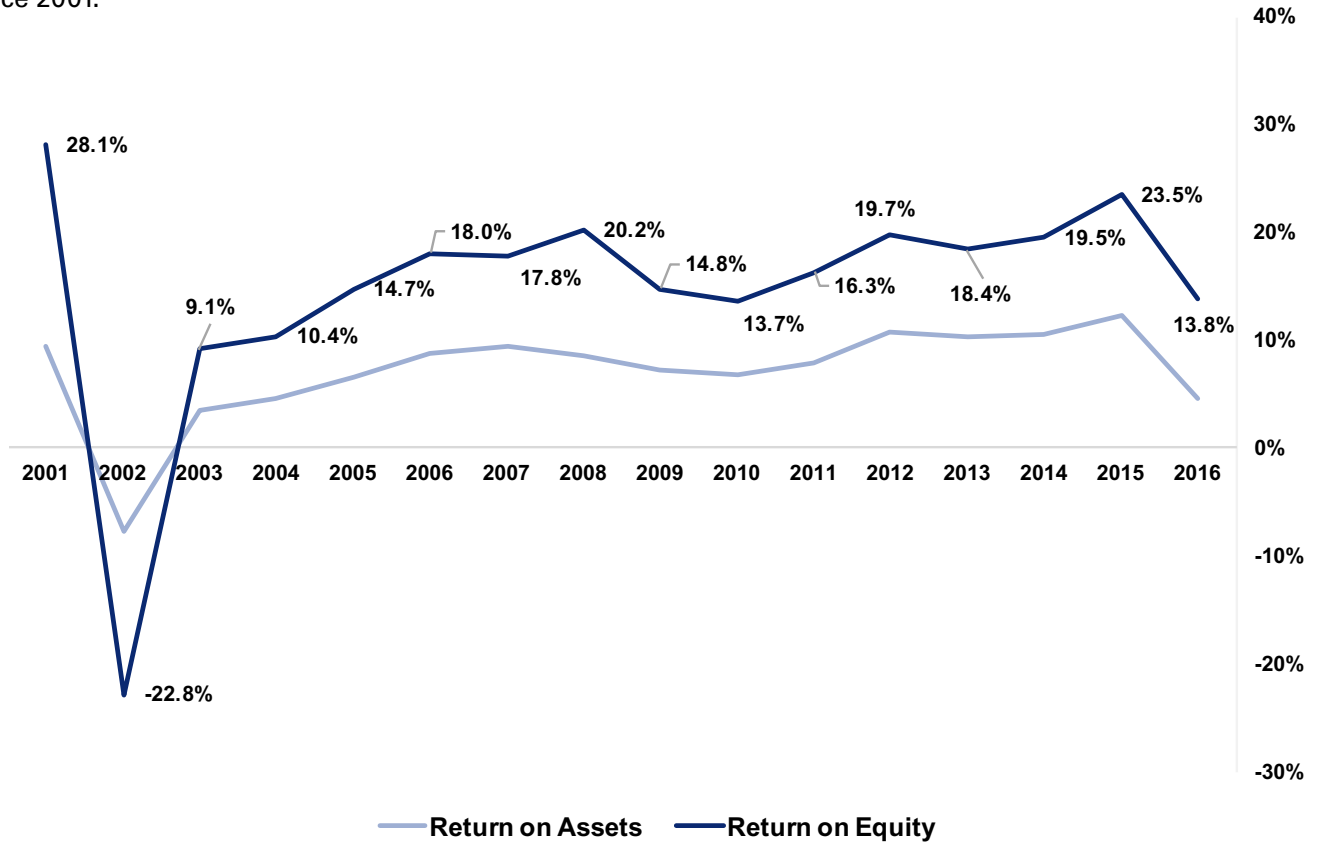


Source: AAR (Association of American Railroads) and Wabtec 10-K filings

Consistent Return on Equity. Despite the cyclical nature of the business, the company was able to sustain a strong average return on equity of 14.7% since 2001. **This strong ROE demonstrates the strength of Wabtec's economic moat and franchise value.**

Exhibit 12: Historical Return on Equity & Return on Assets

Despite the cyclical nature of revenues, the company has maintained an impressive average ROE of 14.7% since 2001.



Source: Wabtec 10-K filings

Balance Sheet

The incredible growth in assets (24% CAGR from 2010 to 2016) has come from the large growth in retained earnings (+\$1,665 million) and long-term debt (+\$1,381 million).

Exhibit 13: Historical Balance Sheet

The company's debt to equity ratio has changed dramatically over the past 7 years as it has bottomed at 0.25 before rising to 0.80 with the acquisition of Faiveley.

	2016	2015	2014	2013	2012	2011	2010
ASSETS							
Cash and cash equivalents	\$ 398,484.0	\$ 226,191.0	\$ 425,849.0	\$ 285,760.0	\$ 215,766.0	\$ 285,615.0	\$ 236,941.0
Accounts receivable	\$ 667,596.0	\$ 494,975.0	\$ 443,464.0	\$ 349,458.0	\$ 389,915.0	\$ 346,281.0	\$ 258,149.0
Unbilled accounts receivable	\$ 274,912.0	\$ 103,814.0	\$ 187,762.0	\$ 205,045.0	\$ -	\$ -	\$ -
Inventories	\$ 658,510.0	\$ 478,574.0	\$ 510,949.0	\$ 403,229.0	\$ 407,039.0	\$ 348,174.0	\$ 253,491.0
Deposits in escrow	\$ 744,748.0	\$ 202,942.0	\$ -	\$ -	\$ -	\$ -	\$ -
Other current assets	\$ 123,381.0	\$ 33,524.0	\$ 69,840.0	\$ 89,555.0	\$ 80,218.0	\$ 75,712.0	\$ 53,372.0
Total current assets	\$ 2,867,631.0	\$ 1,540,020.0	\$ 1,637,864.0	\$ 1,333,047.0	\$ 1,092,938.0	\$ 1,055,782.0	\$ 801,953.0
Property, plant and equipment	\$ 912,230.0	\$ 717,295.0	\$ 683,034.0	\$ 597,740.0	\$ 555,924.0	\$ 513,113.0	\$ 478,023.0
Accumulated depreciation	\$ (393,854.0)	\$ (364,102.0)	\$ (343,923.0)	\$ (321,662.0)	\$ (311,836.0)	\$ (291,091.0)	\$ (271,798.0)
Property, plant and equipment, net	\$ 518,376.0	\$ 353,193.0	\$ 339,111.0	\$ 276,078.0	\$ 244,088.0	\$ 222,022.0	\$ 206,225.0
Goodwill	\$ 2,078,765.0	\$ 858,532.0	\$ 862,338.0	\$ 786,433.0	\$ 666,022.0	\$ 587,531.0	\$ 545,832.0
Other intangibles, net	\$ 1,053,860.0	\$ 440,534.0	\$ 422,811.0	\$ 385,679.0	\$ 308,321.0	\$ 257,355.0	\$ 216,913.0
Intangible % of total assets	47.6%	40.2%	38.9%	41.5%	41.4%	39.1%	42.3%
Other noncurrent assets	\$ 62,386.0	\$ 37,234.0	\$ 41,717.0	\$ 40,760.0	\$ 40,173.0	\$ 36,263.0	\$ 32,158.0
Total Assets	\$ 6,581,018.0	\$ 3,229,513.0	\$ 3,303,841.0	\$ 2,821,997.0	\$ 2,351,542.0	\$ 2,158,953.0	\$ 1,803,081.0
LIABILITIES							
Accounts payable	\$ 530,211.0	\$ 319,525.0	\$ 399,845.0	\$ 326,666.0	\$ 248,593.0	\$ 244,649.0	\$ 170,504.0
Customer deposits	\$ 256,591.0	\$ 106,127.0	\$ 111,797.0	\$ 66,573.0	\$ 82,810.0	\$ 72,811.0	\$ 23,810.0
Accrued compensation	\$ 145,324.0	\$ 69,892.0	\$ 70,857.0	\$ 57,058.0	\$ 53,222.0	\$ 48,564.0	\$ 39,870.0
Accrued warranty	\$ 123,190.0	\$ 72,678.0	\$ 68,031.0	\$ 43,197.0	\$ 39,860.0	\$ 29,416.0	\$ 20,510.0
Current portion of long-term debt	\$ 129,809.0	\$ 433.0	\$ 792.0	\$ 421.0	\$ 43.0	\$ 68.0	\$ 40,068.0
Commitment and contingencies	\$ 344.0	\$ 494.0	\$ 762.0	\$ 485.0	\$ 435.0	\$ 392.0	\$ 593.0
Other accrued liabilities	\$ 261,170.0	\$ 95,627.0	\$ 86,718.0	\$ 85,000.0	\$ 128,096.0	\$ 145,485.0	\$ 53,019.0
Total current liabilities	\$ 1,446,639.0	\$ 664,776.0	\$ 738,802.0	\$ 579,400.0	\$ 553,059.0	\$ 541,385.0	\$ 348,374.0
Long-term debt	\$ 1,762,967.0	\$ 691,805.0	\$ 520,403.0	\$ 450,288.0	\$ 317,853.0	\$ 395,805.0	\$ 382,007.0
Long-term debt to equity	0.80	0.41	0.29	0.28	0.25	0.38	0.42
Accrued postretirement and pension benefits	\$ 110,597.0	\$ 55,765.0	\$ 81,908.0	\$ 50,003.0	\$ 66,388.0	\$ 63,837.0	\$ 60,508.0
Deferred income taxes	\$ 245,680.0	\$ 72,519.0	\$ 112,915.0	\$ 114,486.0	\$ 91,176.0	\$ 74,217.0	\$ 76,505.0
Commitment and contingencies	\$ 956.0	\$ 943.0	\$ 973.0	\$ 1,141.0	\$ 1,238.0	\$ 1,290.0	\$ 900.0
Accrued warranty	\$ 15,802.0	\$ 19,386.0	\$ 19,818.0	\$ 17,396.0	\$ 18,352.0	\$ 21,224.0	\$ 15,003.0
Other long-term liabilities	\$ 21,552.0	\$ 22,980.0	\$ 20,724.0	\$ 22,116.0	\$ 21,459.0	\$ 13,551.0	\$ 16,397.0
Total Liabilities	\$ 3,604,193.0	\$ 1,528,174.0	\$ 1,495,543.0	\$ 1,234,830.0	\$ 1,069,525.0	\$ 1,111,309.0	\$ 899,694.0
SHAREHOLDERS' EQUITY							
Preferred stock, 1,000,000 shares authorized, no shares issued	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Common stock, \$.01 par value; 200,000,000 shares authorized; 132,349,534 shares issued and 95,425,432 and 91,836,106 outstanding at December 31, 2016 and December 31, 2015, respectively	\$ 1,323.0	\$ 1,323.0	\$ 1,323.0	\$ 1,323.0	\$ 662.0	\$ 662.0	\$ 662.0
Additional paid-in capital	\$ 869,951.0	\$ 469,326.0	\$ 448,531.0	\$ 415,059.0	\$ 381,348.0	\$ 360,914.0	\$ 339,861.0
Treasury stock, at cost, 36,924,102 and 40,513,428 shares at December 31, 2016 and December 31, 2015, respectively	\$ (838,950.0)	\$ (775,124.0)	\$ (392,262.0)	\$ (372,969.0)	\$ (349,388.0)	\$ (309,196.0)	\$ (290,081.0)
Retained earnings	\$ 2,553,258.0	\$ 2,280,801.0	\$ 1,909,136.0	\$ 1,576,702.0	\$ 1,297,772.0	\$ 1,053,706.0	\$ 887,406.0
Accumulated other comprehensive loss	\$ (379,605.0)	\$ (276,719.0)	\$ (159,486.0)	\$ (34,856.0)	\$ (53,564.0)	\$ (60,897.0)	\$ (38,077.0)
Total Westinghouse Air Brake Technologies Corporation shareholders' equity	\$ 2,205,977.0	\$ 1,699,607.0	\$ 1,807,242.0	\$ 1,585,259.0	\$ 1,276,830.0	\$ 1,045,189.0	\$ 899,771.0
Non-controlling interest	\$ 770,848.0	\$ 1,732.0	\$ 1,056.0	\$ 1,908.0	\$ 5,187.0	\$ 2,455.0	\$ 3,616.0
Total Equity	\$ 2,976,825.0	\$ 1,701,339.0	\$ 1,808,298.0	\$ 1,587,167.0	\$ 1,282,017.0	\$ 1,047,644.0	\$ 903,387.0
Number of Common Shares Outstanding	95,425,432	91,836,106	96,274,395	95,909,948	47,703,684	47,946,360	47,954,085
Book Value per Share	\$ 23.12	\$ 18.51	\$ 18.77	\$ 16.53	\$ 26.77	\$ 21.80	\$ 18.76
Tangible Book Value per Share	\$ (9.71)	\$ 4.36	\$ 5.42	\$ 4.31	\$ 6.34	\$ 4.18	\$ 2.86

Source: Wabtec 10-K filings

Earnings Estimates

If we examine analyst consensus estimates for Wabtec, we see that net income is expected to increase 25.9% to \$3.92 share. Revenue is set to grow 39.3% due to the acquisition of Faiveley.

We have not identified any factor that analysts are ignoring or not properly valuing. Therefore, we feel confident using these consensus estimates for our forecasts for Wabtec.

Exhibit 14: Consensus Analyst Estimates

Net income is expected to increase 25.9% in 2017, 21.0% in 2018, and 12.7% in 2019 with sales growth of 39.3% (following Faiveley acquisition), 3.9%, and 5.2%, respectively.

	2016 (Actual)	2017 (Estimate)	2018 (Estimate)	2019 (Estimate)
Net Sales	\$ 2,931,188.0	\$ 4,081,900.0	\$ 4,242,200.0	\$ 4,466,000.0
Cost of Sales	\$ (2,006,949.0)	\$ (2,836,104.1)	\$ (2,916,088.3)	\$ (2,983,288.0)
Gross profit	\$ 924,239.0	\$ 1,245,795.9	\$ 1,326,111.7	\$ 1,482,712.0
Gross margin	31.5%	30.5%	31.3%	33.2%
Income from operations	\$ 458,361.0	\$ 605,625.0	\$ 681,000.0	\$ 751,000.0
Net income attributable to Wabtec shareholders	\$ 304,887.0	\$ 384,000.0	\$ 464,500.0	\$ 523,666.7
Diluted Earnings per Share	\$ 3.34	\$ 3.92	\$ 4.61	\$ 5.27
Return on Equity	15.6%	18.4%	15.8%	14.8%
Capital Expenditures	\$ 50,216.0	\$ 87,333.3	\$ 110,000.0	none provided
Free Cash Flow	\$ 399,091.0	\$ 364,754.0	\$ 357,836.0	\$ 326,110.0

Free Cash flow exceeded Net income in 2016 due to amortization expenses of \$22,698 thousand, \$20,813 thousand stock-based compensation expense, and a decrease in inventories (excluding acquisitions). The expected increases in capital expenditures following Faiveley acquisition lead Free Cash Flow to fall below net income for 2017 onwards.

Source: Bloomberg

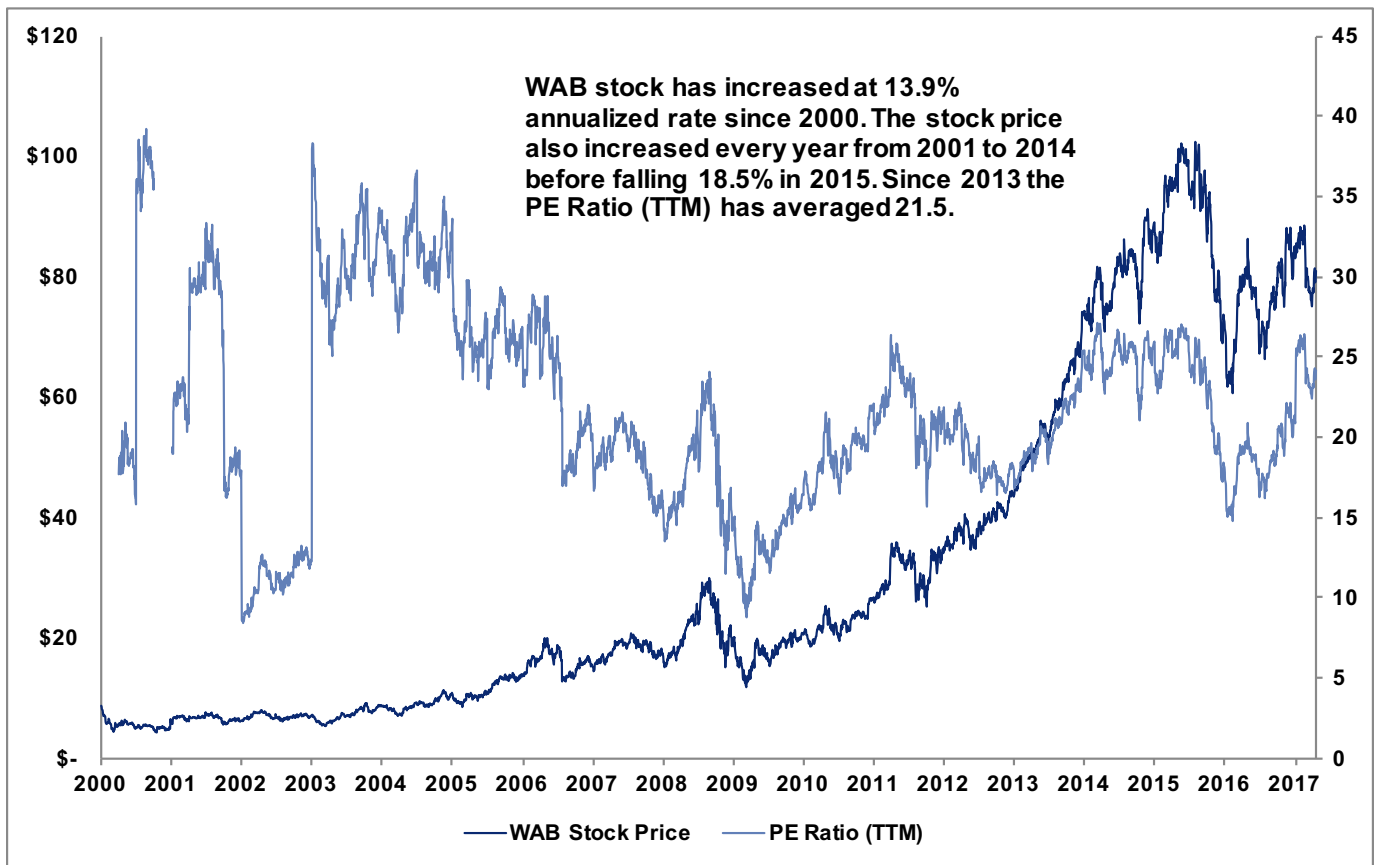
Note that we expect sales growth to rapidly decelerate without any new acquisitions. Wabtec management has cautioned that after Faiveley, they need to slow down with acquisitions so they can focus on properly integrating the company into Wabtec.

Valuation

Wabtec stock has had an incredible run over the past sixteen years. The price to earnings ratio has recently recovered to its levels before the dip at 25x current earnings.

The company's greatest stock increases came during the heart of the crude-by-rail boom (2012-2015).

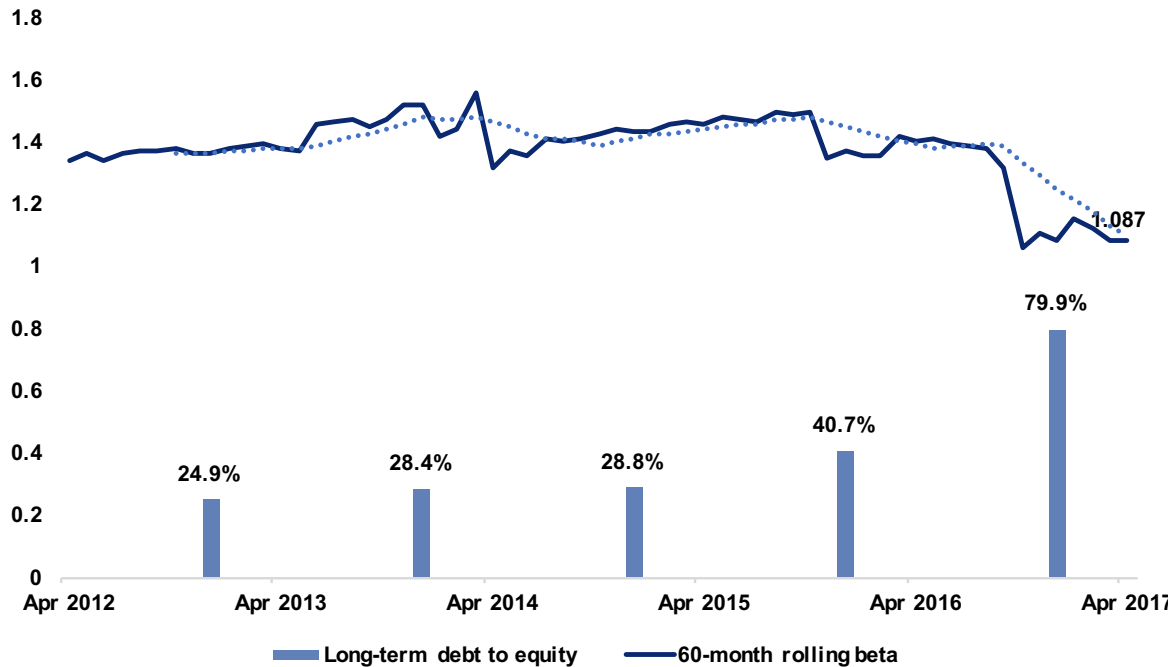
Exhibit 15: WAB Stock Price and P/E Ratio (TTM)



We calculate a rolling beta for WAB stock compared to the S&P 500 over the 60 month period from April 2012 to the present. Over this period, the average beta is 1.378, compared to the current 1.087. We believe the average beta over this period better reflects the nature of the stock and thus select 1.378 for our calculations in our APV valuation.

Exhibit 16: WAB Rolling Beta versus S&P 500

Calculations of rolling beta for WAB over 60 month period. The average beta is 1.378.



Source: Authors' calculations

Given the unstable debt to equity ratio of the company, we have chosen an adjusted-present value (APV) valuation where we assume a constant future debt level of \$2,000 million. We are comfortable making this assumption as we do not see the company rushing to pay down debt following the acquisition of Faiveley given its plans to make higher capital expenditures in the coming years. We believe the company will not push debt levels far above \$2,000 million as that would lead to a debt to equity ratio of over 0.80, a level the company has been loath to cross in the past. Over the past fifteen years, the long-term debt to equity ratio of the company has averaged 0.63. Growth in equity on a \$2,000 million debt level will keep the ratio within the historical range.

Exhibit 17: APV Valuation

Dollar amounts in thousands. We calculate the central value per share to be \$73.77, or 8.6% less than the current market price.

	2017	2018	2019	2020			<i>Assumptions</i>	
Cash Flows	\$ 364,754.0	\$ 357,836.0	\$ 326,110.0	\$ 5,771,858.4	PV Cash Flows	\$ 5,206,959.9	Unlevered cost of equity	7.65%
PV	\$ 338,833.3	\$ 308,784.8	\$ 261,409.9	\$ 4,297,931.9	PV Debt-Tax Shield	\$ 1,832,868.42 <i>Per Share</i>	Risk-free rate	0.76%
# of Shares	95,425,432				Central Value	\$ 7,039,828.3	Cost of debt	2.41%
					Market Value	\$ 7,700,000.0	Tax rate	28.90%
					Balance	\$ (660,171.68)	Terminal growth rate	2.0%
					%	-8.6%	Future Debt Level	\$ 2,000,000.0

We are drawing on the company’s experience in the early 2000s. The company began the decade with incredibly high debt levels (2.74 debt to equity ratio), and made paying their debt down a high priority since large interest expense payments were inhibiting profitability. This past experience forms the basis for our argument that the debt level will not continue to increase past \$2,000 million.

Our APV valuation yields a central value of \$7,040 million, or a per share price of \$73.77. This result is 8.6% less than the current market price. For a more in-depth discussion of our APV assumptions, see our APV Valuation Appendix.

Although our APV valuation argues that the company is currently overpriced by 8.6%, we believe this margin is too narrow to recommend a sell. Furthermore, we believe the company’s franchise power is an incredible strength our valuation model does not fully account for. If we increase the terminal growth rate of our model to 3.0%, the APV yields that the company is undervalued by 3.4%. Therefore, we feel confident recommending a hold.

Without a clear catalyst or reason for a mispricing, we are not surprised when we find that the market price fairly reflects the intrinsic value of the business. Wabtec is a wonderful business, but we are not the first to see that. There seems to be no glaring asymmetry between the risk and return of this investment. Our valuation places the central value of the company at just out the market price. We therefore recommend a hold.

Conclusion

The dilemma facing value investors eyeing Wabtec is that the company lacks a clear investment catalyst. Wabtec is a strong franchise that will earn excess returns on equity (ROE has averaged 14.7% since 2001), but with that wonderful business comes a wonderful price of 24x earnings. The current earnings and acquisition headwinds, while important, do not constitute a major threat to Wabtec's core franchise.

Without any clear reason or cause for a mispricing, we are not surprised to find that the market price fairly reflects the intrinsic value of the business. Without any asymmetry between risk and reward in this investment, we recommend investors continue to hold the stock, unless they are able to find a more compelling value play elsewhere. Those without more compelling alternatives should sit tight and continue reaping the benefits of Wabtec's economic moat. Despite the headwinds facing the company, Wabtec's core franchise makes the company a stock to hold on to.

APV VALUATION APPENDIX FOR WAB

We assume the tax rate t to be the average effective tax rate over the past three years where the effective tax rate is defined to be income tax expense divided by income from operations before income tax.

$$t = 0.289$$

We take an average of only the past three years to capture the drop in the tax rate resulting from the temporary French corporate tax cut.

For the risk-free rate r_f , we use the 1-month Treasury bill.

$$r_f = 0.0076$$

For the market return r_m , we choose 8.00%.

$$r_m = 0.08$$

We calculated the levered beta β_{levered} by regressing monthly returns of WAB on the S&P 500. We take the average beta over the past 60 months.

$$\beta_{\text{levered}} = 1.378$$

In order to calculate the unlevered beta, we need estimate a target debt to equity ratio $\frac{D}{E}$. We take the average debt to equity ratio from 2000 to 2016 since this period reflected a high initial debt level that gradually decreased.

$$\frac{D}{E} = 0.63$$

We next calculate the value of the unlevered beta to be 0.952.

$$\beta_{\text{unlevered}} = \frac{\beta_{\text{levered}}}{[1 + (1 - t)\frac{D}{E}]} = 0.952$$

We used the capital asset pricing model (CAPM) to calculate the unlevered cost of equity r_{equity} .

$$r_{\text{equity}} = r_f + \beta_{\text{unlevered}}(r_m - r_f) = 0.0765$$

We calculate the cost of debt to be interest expense in 2016 divided by 2016 long-term debt. We use only the 2016 figures since the debt level increased sharply in 2016.

$$r_d = .0241$$

We let the terminal growth rate g be 2.00%.

$$g = 0.02$$

	2016	2015	2014	2013	2012	2011	2010
Net Sales	\$ 2,931,188.0	\$ 3,307,998.0	\$ 3,044,454.0	\$ 2,566,392.0	\$ 2,391,122.0	\$ 1,967,637.0	\$ 1,507,012.0
Cost of Sales	\$ (2,006,949.0)	\$ (2,260,182.0)	\$ (2,108,472.0)	\$ (1,802,365.0)	\$ (1,696,555.0)	\$ (1,397,213.0)	\$ (1,057,934.0)
Gross profit	\$ 924,239.0	\$ 1,047,816.0	\$ 935,982.0	\$ 764,027.0	\$ 694,567.0	\$ 570,424.0	\$ 449,078.0
<i>Gross margin</i>	31.5%	31.7%	30.7%	29.8%	29.0%	29.0%	29.8%
Selling, general and administrative expenses	\$ (371,805.0)	\$ (347,373.0)	\$ (324,539.0)	\$ (262,718.0)	\$ (245,709.0)	\$ (247,534.0)	\$ (195,892.0)
Engineering expenses	\$ (71,375.0)	\$ (71,213.0)	\$ (61,886.0)	\$ (46,289.0)	\$ (41,307.0)	\$ (37,193.0)	\$ (40,203.0)
Amortization expenses	\$ (22,698.0)	\$ (21,663.0)	\$ (22,448.0)	\$ (17,710.0)	\$ (15,272.0)	\$ (14,996.0)	\$ (10,173.0)
Total operating expenses	\$ (465,878.0)	\$ (440,249.0)	\$ (408,873.0)	\$ (326,717.0)	\$ (302,288.0)	\$ (299,723.0)	\$ (246,268.0)
Income from operations	\$ 458,361.0	\$ 607,567.0	\$ 527,109.0	\$ 437,310.0	\$ 392,279.0	\$ 270,701.0	\$ 202,810.0
Other income and expenses							
Interest expense, net	\$ (42,561.0)	\$ (16,888.0)	\$ (17,574.0)	\$ (15,341.0)	\$ (14,251.0)	\$ (15,007.0)	\$ (15,923.0)
Other (expense) income, net	\$ (2,963.0)	\$ (5,311.0)	\$ (1,680.0)	\$ (882.0)	\$ (670.0)	\$ (380.0)	\$ (60.0)
Income from operations before income taxes	\$ 412,837.0	\$ 585,368.0	\$ 507,855.0	\$ 421,087.0	\$ 377,358.0	\$ 255,314.0	\$ 186,827.0
Income tax expense	\$ (99,433.0)	\$ (186,740.0)	\$ (156,175.0)	\$ (128,852.0)	\$ (125,626.0)	\$ (85,165.0)	\$ (63,728.0)
<i>Effective tax rate</i>	24.1%	31.9%	30.8%	30.6%	33.3%	33.4%	34.1%
Net Income from continuing operations	\$ 313,404.0	\$ 398,628.0	\$ 351,680.0	\$ 292,235.0	\$ 251,732.0	\$ 170,149.0	\$ 123,099.0
Income (loss) from discontinued operations (net of tax)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Gain on sale of discontinued operations (net of tax)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Less: Net income attributable to noncontrolling interest	\$ (8,517.0)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Less: Cumulative effect of accounting change for goodwill, net of tax	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net income attributable to Wabtec shareholders	\$ 304,887.0	\$ 398,628.0	\$ 351,680.0	\$ 292,235.0	\$ 251,732.0	\$ 170,149.0	\$ 123,099.0
<i>Net profit margin</i>	10.4%	12.1%	11.6%	11.4%	10.5%	8.6%	8.2%
Weighted average diluted shares outstanding	91,141,000	97,006,000	96,885,000	96,832	96,742	96,657	48,005
Diluted Earnings per Share	\$ 3.34	\$ 4.10	\$ 3.62	\$ 3.01	\$ 2.60	\$ 1.77	\$ 2.56

Reflects goodwill writeoffs following adoption of SFAS No. 142, Goodwill & Other Intangible Assets.

Note stock split when examining per-share figures.

	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	CAGR
Net Sales	\$ 1,401,616.0	\$ 1,574,749.0	\$ 1,360,088.0	\$ 1,087,620.0	\$ 1,034,024.0	\$ 822,018.0	\$ 717,924.0	\$ 696,195.0	\$ 783,698.0	\$ 811,178.0	8.4%
Cost of Sales	\$ (1,008,290.0)	\$ (1,147,563.0)	\$ (990,469.0)	\$ (790,843.0)	\$ (774,378.0)	\$ (616,854.0)	\$ (528,474.0)	\$ (516,724.0)	\$ (573,772.0)	\$ (571,503.0)	8.2%
Gross profit	\$ 393,326.0	\$ 427,186.0	\$ 369,619.0	\$ 296,777.0	\$ 259,646.0	\$ 205,164.0	\$ 189,450.0	\$ 179,471.0	\$ 209,926.0	\$ 239,675.0	8.8%
<i>Gross margin</i>	28.1%	27.1%	27.2%	27.3%	25.1%	25.0%	26.4%	25.8%	26.8%	29.5%	28.2% *Average
Selling, general and administrative expenses	\$ (160,998.0)	\$ (170,597.0)	\$ (148,437.0)	\$ (130,294.0)	\$ (121,696.0)	\$ (112,621.0)	\$ (102,398.0)	\$ (93,827.0)	\$ (95,034.0)	\$ (94,757.0)	8.9%
Engineering expenses	\$ (42,447.0)	\$ (38,981.0)	\$ (37,434.0)	\$ (32,701.0)	\$ (32,762.0)	\$ (33,795.0)	\$ (32,929.0)	\$ (33,592.0)	\$ (33,156.0)	\$ (32,297.0)	5.1%
Amortization expenses	\$ (9,849.0)	\$ (5,092.0)	\$ (4,007.0)	\$ (3,631.0)	\$ (3,259.0)	\$ (3,343.0)	\$ (4,309.0)	\$ (5,322.0)	\$ (13,013.0)	\$ (12,615.0)	3.7%
Total operating expenses	\$ (213,294.0)	\$ (214,670.0)	\$ (189,878.0)	\$ (166,626.0)	\$ (157,717.0)	\$ (149,759.0)	\$ (139,636.0)	\$ (132,741.0)	\$ (141,203.0)	\$ (139,669.0)	7.8%
Income from operations	\$ 180,032.0	\$ 212,516.0	\$ 179,741.0	\$ 130,151.0	\$ 101,929.0	\$ 55,405.0	\$ 49,814.0	\$ 46,730.0	\$ 68,723.0	\$ 100,006.0	10.0%
Other income and expenses											
Interest expense, net	\$ (16,674.0)	\$ (8,508.0)	\$ (3,637.0)	\$ (2,177.0)	\$ (9,358.0)	\$ (11,528.0)	\$ (11,118.0)	\$ (19,135.0)	\$ (33,501.0)	\$ (43,649.0)	-0.2%
Other (expense) income, net	\$ 1.0	\$ 292.0	\$ (3,650.0)	\$ (1,417.0)	\$ (3,055.0)	\$ (1,020.0)	\$ (3,654.0)	\$ (3,691.0)	\$ (2,815.0)	\$ (724.0)	9.2%
Income from operations before income taxes	\$ 163,359.0	\$ 204,300.0	\$ 172,454.0	\$ 126,557.0	\$ 89,516.0	\$ 42,857.0	\$ 35,042.0	\$ 23,904.0	\$ 32,407.0	\$ 55,633.0	13.3%
Income tax expense	\$ (48,304.0)	\$ (73,746.0)	\$ (63,067.0)	\$ (40,063.0)	\$ (31,831.0)	\$ (10,761.0)	\$ (12,790.0)	\$ (7,594.0)	\$ (11,342.0)	\$ (20,028.0)	10.5%
<i>Effective tax rate</i>	29.6%	36.1%	36.6%	31.7%	35.6%	25.1%	36.5%	31.8%	35.0%	36.0%	32.5% *
Net Income from continuing operations	\$ 115,055.0	\$ 130,554.0	\$ 109,387.0	\$ 86,494.0	\$ 57,685.0	\$ 32,096.0	\$ 22,252.0	\$ 16,310.0	\$ 21,065.0	\$ 35,605.0	14.6%
Income (loss) from discontinued operations (net of tax)	\$ -	\$ -	\$ 183.0	\$ (1,690.0)	\$ (1,909.0)	\$ 349.0	\$ 451.0	\$ (126.0)	\$ 6,360.0	\$ 6,193.0	
Gain on sale of discontinued operations (net of tax)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 41,458.0	\$ -	
Less: Net income attributable to noncontrolling interest	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Less: Cumulative effect of accounting change for goodwill, net of tax	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (61,663.00)	\$ -	\$ -	\$ -	
Net income attributable to Wabtec shareholders	\$ 115,055.0	\$ 130,554.0	\$ 109,570.0	\$ 84,804.0	\$ 55,776.0	\$ 32,445.0	\$ 22,703.0	\$ (45,479.0)	\$ 68,883.0	\$ 41,798.0	13.2%
<i>Net profit margin</i>	8.2%	8.3%	8.1%	7.8%	5.4%	3.9%	3.2%	-6.5%	8.8%	5.2%	7.4% *
Weighted average diluted shares outstanding	47,977	48,847	49,141	49,108	47,595	45,787	43,974	43,617	43,198	43,382	
Diluted Earnings per Share	\$ 2.39	\$ 2.66	\$ 2.23	\$ 1.73	\$ 1.17	\$ 0.71	\$ 0.52	\$ (1.05)	\$ 1.60	\$ 0.96	

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