

Titan International (TWI)

Price:	\$15.15	Net Tang. Bk Value Incl. Cash, Excl.	\$650,970,000.00	Net Tang. Book Yr. 5 (Inc. Cash):	\$829,810,025.00
Market Cap:	\$811,131,000	Goodwill (NTBVIC):		Avg. Year Op. Cash:	\$89,858,005.00
Cash:	\$424,390,000	NTBVIC/Market Downside Recovery:	80.25%	Year 5 Disposition FCF Multiple:	3.0
Debt:	\$743,110,000	Op. Cash Flow:	\$89,858,005	Year 5 Disposition Price:	\$1,099,384,040.00
Net Cash:	-\$318,720,000	Implied Years to Fill Gap:	1.78		
Enterprise Value:	\$1,129,851,000	Today's Equity if 5x Op. CF:	\$920,544,015		
		Net Tang. Book+ Gain Disposition:			\$1,099,384,040.00
Shares Outstanding:	53,540,000	IRR:			6.27%
				Price:	\$20.53
				Target Market Cap:	\$1,099,384,040
				Target Enterprise Value:	\$1,418,104,040

* Our future intrinsic value measures the total return, which includes both capital appreciation and dividend income.

Stock has fallen to an attractive price from a value perspective.

However, the continued growth in A/R, A/P, and low cash conversion is worrying. The important catalyst of our thesis is hinged heavily on sustainable cash flow and we aren't comfortable with the future prospects. Although the short term trade off is attractive, we don't feel confident with a long term investment for this stock. We will pass.

July 2013 Report

Stock plummeted in early June, from \$26 and has trailed down to today's \$17.90, or a wipe out of \$400MM in market cap. What triggered the collapse? Large brokerages, Jefferies, William Blair and BB&T downgraded the stock on the back of oil price pressure crimping margins and reduced demand for large earth movers with the lull in mining. Does this spell a buyout opportunity for us?

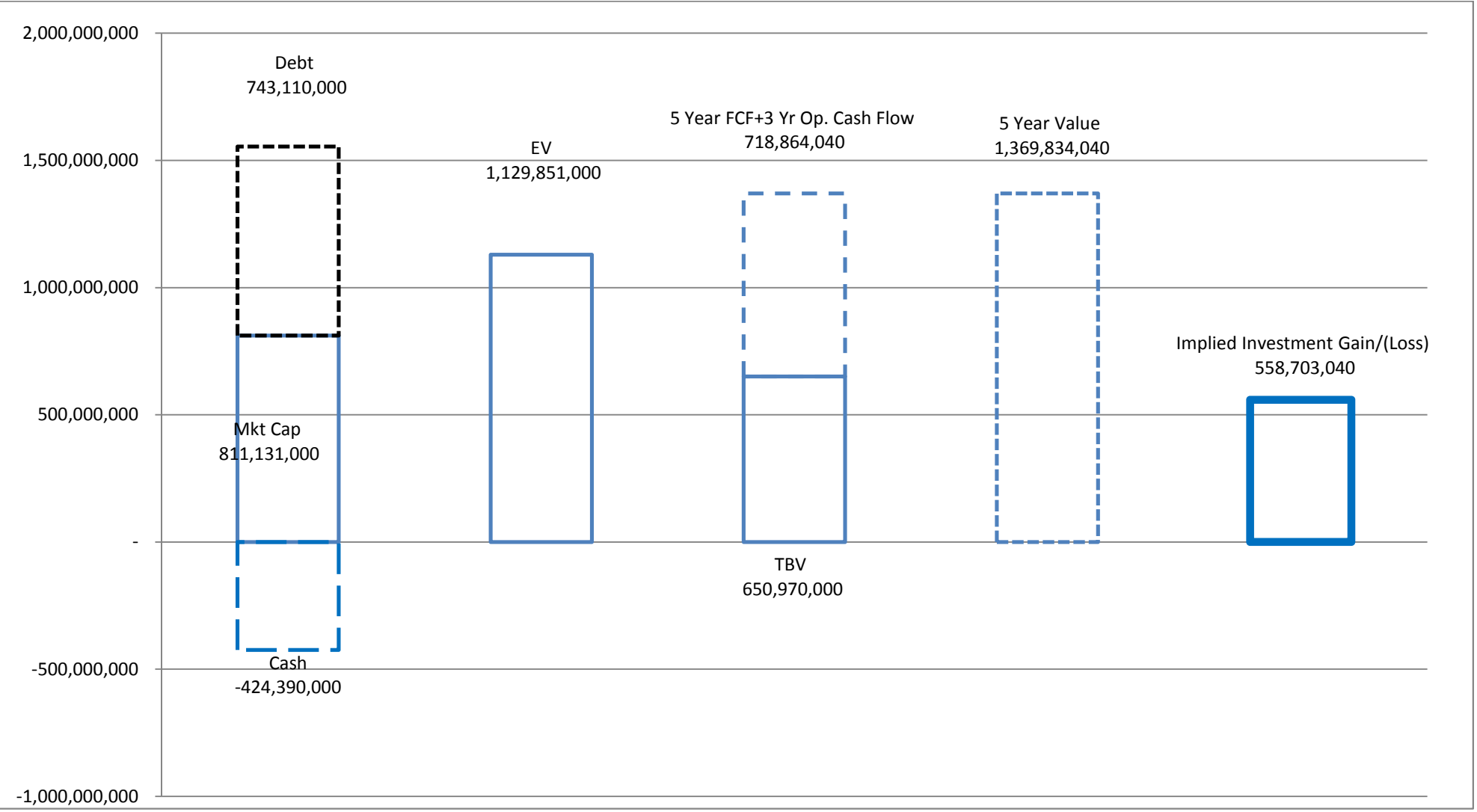
Agri/earthmoving/consumer, tire/wheel company. Main cost is steel for rim/disc, rubber for tire. Recently acquired Titan Europe, which was 20% owned, in December 2012 for +\$100MM in a 11-for-1 stock acquisition. The Co. took out additional debt, secured by the land and assets of the subsidiary companies, for \$200MM in Q1 2013. The Co. paid off \$100MM in remaining liabilities of Titan Europe in April 2013. With the remainder, management looks like they are searching for more acquisition targets, which we hate.

Deere and Co. is the largest customer with 20% of sales. CNH Global N.V. is a 10% of sales customer. We see a 65% downside protection, and the Co. has \$500MM in cash for \$800MM in debt. Interest rate is high for the debt at 8%. We think if they make another large acquisition, then it may be the omen for this Co. Acquisition for an industry dependent on China and the health of the global economy is too risky.

We compressed margins to 13%GM from 16%. Still provides a conservatively adjusted return, but the overwhelming market consensus is pessimism over the industry trend.

The asset value is present, but slimmer margins may call for a dry spell with regards to cash flow.

We will pass on this investment.



Titan International, Inc., was founded in 1890 and was incorporated in 1983 in the State of Illinois. It is a wheel, tire and undercarriage industrial group servicing customers across its target markets. As a manufacturer in the off-highway industry, it produces specialty products to meet the specifications of original equipment manufacturers and aftermarket customers in the agricultural, earthmoving/construction and consumer markets. For the agricultural market, the Company manufactures rims, wheels and tires for use on various agricultural and forestry equipment, including tractors, combines, skidders, plows, planters and irrigation equipment, and are sold directly to OEMs and to the aftermarket through independent distributors, equipment dealers and Titan's own distribution centers. For the earthmoving/ construction market, the Company manufactures rims, wheels and tires for various types of OTR earthmoving, mining, military and construction equipment, including skid steers, aerial lifts, cranes, graders and levelers, scrapers, self-propelled shovel loaders, articulated dump trucks, load transporters, haul trucks and backhoe loaders. For the Consumer market, the Company manufactures bias truck tires in Latin America, provides wheels and tires and assembles brakes, actuators and components for the domestic boat, recreational and utility trailer markets. It also offers select products for ATVs, turf, and golf car applications. Steel and rubber are the primary raw materials used by the Company in all segments. It distributes wheels and tires directly to OEMs. The distribution of aftermarket tires occurs through a network of independent and OEM-affiliated dealers. The Company distributes wheel and tire assemblies directly to OEMs and aftermarket customers through its distribution network consisting of facilities in the United States and Latin America. The Company's research, development and engineering staff tests original designs and technologies and develops new manufacturing methods to improve product performance. The Company competitors in the off-highway wheel market include Carlisle Companies Incorporated, GKN Wheels, Ltd., Topy Industries, Ltd. and certain other foreign competitors. Other competitors in the off-highway tire market include Bridgestone/Firestone, Carlisle Companies Incorporated, Michelin, Pirelli and certain other foreign competitors. It is subject to extensive and evolving federal, state and local environmental laws and regulations, and has made provisions for the estimated financial impact of environmental cleanup.

Company Name:		Titan International		Market Capitalization:		\$811,131,000.00		Revenue:		\$2,070,000,000.00		100.0%	
Ticker Symbol:	TWI	Total Debt:	\$743,110,000.00	Cost of Goods Sold:	\$1,775,860,000.00	85.8%		Gross Profit:	\$294,140,000.00	14.2%		EBITDA:	
Last Price:	\$15.15	RCH Total Cash:	\$424,390,000.00	Net Cash/(Debt):	-\$318,720,000.00			Net Income:	\$58,770,000.00	2.8%		Balance Sheet	
Net Cash/Share:	-\$5.95	Enterprise Value:	\$1,129,851,000.00	Current EV/Share:	\$21.10			Cash:	\$424,390,000.00			Short Term Investment:	
Net Cash to Last Price:	-39.29%	EBITDA:	\$228,790,000.00	EV/EBITDA Multiple:	4.94			A/R:	\$335,000,000.00			PP&E:	
Shares Outstanding:	53,540,000	EV/EBITDA Multiple Average Year 1-5:	6.22	EV/FCF Multiple (excluding acquisition):	17.54			Assets:	\$1,939,200,000.00			A/P:	
Industry:	Rubber & Plastics	EV/FCF Multiple Average Year 1-5 (excluding acquisition):	56.90	Upper Range		DCF: EV/EBITDA Terminal Value		Deferred Tax:	\$211,000,000.00			Other Liabilities:	
Sector:	Consumer Cyclical			Implied TV from 3 X EV/EBITDA Multiple		\$382,342,800.00		Short term Debt:	\$105,110,000.00			Long Term Debt:	
Institutional Ownership:	#VALUE!			Enterprise Value		\$382,342,800.00		Liabilities:	\$1,266,580,000.00			Retained Earnings:	
Mutual Fund Ownership:	50.77%			Cash at Year 5:		\$523,680,025.00		Paid-In Capital:	\$556,000,000.00			Treasury Stock:	
Insider Ownership:	5.27%			Debt at Year 5:		\$743,110,000.00		Stockholder's Equity:	\$672,970,000.00			Cash Flow	
Float:	96.00%			Equity Value Year 5:		\$162,912,825.00		Net Income:	93,960,000.00			Depreciation/Amortization:	
				Equity/Share at Year 5:		\$3.04		Change in Working capital:	13,290,000.00			Cash from Operating Activities:	
				Annualized Return:		-27.46%		Cash from Investing Activities:	-65,740,000.00			Cash from Financing Activities:	
				Lower Range		DCF: Net Tangible Asset excluding Cash/Debt Terminal Value		Capital Expenditures:	-63,890,000.00			Total Cash Dividends Paid:	
				Year 5 Net Tangible Assets excluding cash and debt		\$953,460,000.00		Cash from Investing Activities:	-63,890,000.00			Issuance (Retirement) of Stock:	
				Enterprise Value		\$953,460,000.00		Issuance (Retirement) of Debt:	-3,640,000.00			Cash from Financing Activities:	
				Cash at Year 5:		\$523,680,025.00						Profitability Margins	
				Debt at Year 5:		\$743,110,000.00						Debt to Equity:	
				Equity Value Year 5:		\$734,030,025.00						Return on Assets:	
				Equity/Share at Year 5:		\$13.71						Return on Capital:	
				Annualized Return:		-1.98%						Return on Equity:	
				EVA									
				EVA today:		\$648,544,756.23							
				EVA in 5 Years:		\$1,262,050,679.53							
				EVA/Share:		\$23.57							
				Cash at Year 5:		\$523,680,025.00							
				Debt at Year 5:		\$743,110,000.00							
				Equity Value Year 5:		\$1,042,620,704.53							
				Equity/Share at Year 5:		\$19.47							
				Annualized return		14.24%							
				Current Net Tangible Asset									
				Net Tangible Asset/Share:		\$12.15							
				Net Tangible Asset/Share in Year 5:		\$15.49							
				Annualized return		4.98%							
				Current Equity Price:		\$15.15							
				Selling at Discount?		Premium							
				Appreciation Potential:		-19.79%							
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SN VALUATION

LBO Pro Forma Income Statement

Name:

Titan International

Ticker:

TWI

	Historical				Forecasted				
	12 months ending 2009-12-31	12 months ending 2010-12-31	12 months ending 2011-12-31	12 months ending 2012-12-31	2013	2014	2015	2016	2017
Revenue	727.60	881.59	1,487.00	1,820.68	1,820.68	1,820.68	1,820.68	1,820.68	1,820.68
COGS	671.63	777.50	1,254.89	1,526.54	1,529.37	1,529.37	1,529.37	1,529.37	1,529.37
Gross margin	55.97	104.09	232.11	294.14	291.31	291.31	291.31	291.31	291.31
SG&A	54.31	66.93	95.71	138.42	145.65	145.65	145.65	145.65	145.65
R&D	8.85	6.32	4.23	7.15	18.21	18.21	18.21	18.21	18.21
Unusual expense	11.70	0.00	16.14	0.00	0.00	0.00	0.00	0.00	0.00
Other operating expense	0.00	0.00	0.00	-26.13	0.00	0.00	0.00	0.00	0.00
Depreciation is: Included within COGS					0.00	0.00	0.00	0.00	0.00
Operating Income (EBITA)	-18.89	30.94	116.03	174.70	127.45	127.45	127.45	127.45	127.45
Interest income/(expense)	-13.30	-40.03	-23.42	1.32	-72.42	-72.42	-72.42	-72.42	-72.42
Gain (loss) on sale of asset	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.19	-0.11	3.27	4.54	0.00	0.00	0.00	0.00	0.00
Income before tax	-32.00	-9.19	95.89	180.57	55.03	55.03	55.03	55.03	55.03
Tax	-7.36	-3.26	37.75	86.61	19.26	19.26	19.26	19.26	19.26
Income after tax	-24.64	-5.93	58.14	93.96	35.77	35.77	35.77	35.77	35.77
Minority Interest	0.00	0.00	0.02	1.59	0.00	0.00	0.00	0.00	0.00
Equity in affiliates	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net income	-24.64	-5.93	58.15	95.55	35.77	35.77	35.77	35.77	35.77
* Figures are in millions (\$)									
EPS (based off today's share count)	-\$0.46	-\$0.11	\$1.09	\$1.78	\$0.67	\$0.67	\$0.67	\$0.67	\$0.67
P/E (historical today's price; forecasted intrinsic price)	-32.92	-136.78	13.95	8.49	24.10	25.61	27.22	28.92	30.74
Revenue Growth	N/A	21.16%	68.67%	22.44%	0.00%	0.00%	0.00%	0.00%	0.00%
Tax Rate	23.00%	35.47%	38.37%	47.96%	35.00%	35.00%	35.00%	35.00%	35.00%
Implied Debt Interest Rate	-3.63%	-10.72%	-7.11%	0.22%	-11.35%	-11.35%	-11.35%	-11.35%	-11.35%
Margins									
COGS	92.31%	88.19%	84.39%	83.84%	84.00%	84.00%	84.00%	84.00%	84.00%
Gross margin	7.69%	11.81%	15.61%	16.16%	16.00%	16.00%	16.00%	16.00%	16.00%
SG&A	7.46%	7.58%	6.44%	7.60%	8.00%	8.00%	8.00%	8.00%	8.00%
R&D	1.22%	0.72%	0.28%	0.39%	1.00%	1.00%	1.00%	1.00%	1.00%
Unusual expense	1.61%	0.00%	1.09%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other operating expense	0.00%	0.00%	0.00%	-1.44%	0.00%	0.00%	0.00%	0.00%	0.00%
Depreciation is: Included within COGS	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Operating Income (EBITA)	-2.60%	3.51%	7.80%	9.60%	7.00%	7.00%	7.00%	7.00%	7.00%
Interest income/(expense)	-1.83%	-4.54%	-1.57%	0.07%	-3.98%	-3.98%	-3.98%	-3.98%	-3.98%
Gain (loss) on sale of asset	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other	0.03%	-0.01%	0.22%	0.25%	0.00%	0.00%	0.00%	0.00%	0.00%
Income before tax	-4.40%	-1.04%	6.45%	9.92%	3.02%	3.02%	3.02%	3.02%	3.02%
Tax	-1.01%	-0.37%	2.54%	4.76%	1.06%	1.06%	1.06%	1.06%	1.06%
Income after tax	-3.39%	-0.67%	3.91%	5.16%	1.96%	1.96%	1.96%	1.96%	1.96%
Minority Interest	0.00%	0.00%	0.00%	0.09%	0.00%	0.00%	0.00%	0.00%	0.00%
Equity in affiliates	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Net income	-3.39%	-0.67%	3.91%	5.25%	1.96%	1.96%	1.96%	1.96%	1.96%

	As of 2009-12-31	As of 2010-12-31	As of 2011-12-31	As of 2012-12-31	As of 2013-06-30	Adjustment		Adjusted Proforma	2011	2012	2013	2014	2015
						+	-						
Cash	229.18	239.50	129.17	189.11	424.39			424.39	444.248005	464.11	483.96	503.82	523.68
Short term investment	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00
Cash and Short term	229.18	239.50	129.17	189.11	424.39			424.39	444.25	464.11	483.96	503.82	523.68
Accounts Receivable	67.51	89.00	189.53	297.80	335.00			335.00	335.00	335.00	335.00	335.00	335.00
Other receivables	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00
Total Receivables	67.51	89.00	189.53	297.80	335.00			335.00	335.00	335.00	335.00	335.00	335.00
Total Inventory	110.14	118.14	190.87	366.38	368.96			368.96	368.96	368.96	368.96	368.96	368.96
Prepaid Expenses	27.28	14.06	20.25	55.59	87.56			87.56	87.56	87.56	87.56	87.56	87.56
Other Current Assets	11.11	20.65	34.77	70.11	30.21			30.21	30.21	30.21	30.21	30.21	30.21
Current Assets	445.22	481.35	564.59	978.99	1,246.12	0.00	0.00	1,246.12	1,265.978005	1,285.84	1,305.69	1,325.55	1,345.41
PP&E, Gross	553.78	577.40	701.70	981.18	1,000.00			1,000.00	1,070.00	1,140.00	1,210.00	1,280.00	1,350.00
Change in Depreciation	34.30	37.57	44.91	54.09	54.09			54.09	54.09	54.09	54.09	54.09	54.09
Accumulated Depreciation	299.32	329.35	366.95	427.02	450.00			450.00	504.09	558.18	612.27	666.36	720.45
PP&E, Net	254.46	248.05	334.75	554.16	550.00			550.00	565.91	581.82	597.73	613.64	629.55
Goodwill	0.00	0.00	19.84	24.94	22.00	0.00		22.00	22.00	22.00	22.00	22.00	22.00
Intangibles	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00
Long term investments	6.46	22.69	29.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00
Other long term assets	30.33	28.78	62.11	120.83	121.08			121.08	121.08	121.08	121.08	121.08	121.08
Long Term Assets	291.25	299.52	445.70	699.93	693.08	0.00	0.00	693.08	708.99	724.90	740.81	756.72	772.63
Total Assets	736.47	780.87	1,010.29	1,678.92	1,939.20	0.00	0.00	1,939.20	1,974.97	2,010.74	2,046.50	2,082.27	2,118.04
Accounts Payable	24.25	35.28	76.57	180.06	211.00			211.00	211.00	211.00	211.00	211.00	211.00
Accrued Expense	7.66	8.58	7.09	6.88	7.00			7.00	7.00	7.00	7.00	7.00	7.00
Other current Liabilities	38.17	48.49	80.38	128.95	134.17			134.17	134.17	134.17	134.17	134.17	134.17
Total Current Liabilities	70.08	92.35	164.04	315.89	352.17	0.00	0.00	352.17	352.17	352.17	352.17	352.17	352.17
Notes Payables/Short Term Debt	0.00	0.00	11.72	145.80	105.11			105.11	105.11	105.11	105.11	105.11	105.11
Current port. Of LT Debt/Capital Leases	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00
Long term Debt	366.30	373.56	317.88	438.33	638.00	0.00	0.00	638.00	638.00	638.00	638.00	638.00	638.00
Capital Lease Obligations	0.00	0.00	0.00	3.11	0.00			0.00	0.00	0.00	0.00	0.00	0.00
Total Interest Earning Debt	366.30	373.56	329.60	587.24	743.11	0.00	0.00	743.11	743.11	743.11	743.11	743.11	743.11
Deferred Income tax	0.00	1.66	38.69	62.26	50.30			50.30	50.30	50.30	50.30	50.30	50.30
Minority Interest	0.00	0.00	1.64	26.16	22.75			22.75	22.75	22.75	22.75	22.75	22.75
Other liabilities	38.14	41.27	81.07	107.10	98.25			98.25	98.25	98.25	98.25	98.25	98.25
Total Liabilities	474.52	508.84	615.04	1,098.65	1,266.58	0.00	0.00	1,266.58	1,266.58	1,266.58	1,266.58	1,266.58	1,266.58
Redeemable Preferred Stock	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00
Non-redeemable Preferred Stock	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00
Common Stock	0.03	0.03	0.04	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Additional Paid-in capital	299.52	300.54	380.30	507.20	556.00	0.00	0.00	556.00	556.00	556.00	556.00	556.00	556.00
Dividends Paid	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00
Retained Earnings	16.38	9.74	67.05	161.73	215.00			215.00	250.77	286.54	322.30	358.07	393.84
Treasury Stock	-20.27	-19.32	-17.34	-16.45	-40.00		0.00	-40.00	-40.00	-40.00	-40.00	-40.00	-40.00
Other Equity	-33.70	-30.43	-50.29	-58.03	-58.03		0.00	-58.03	-58.03	-58.03	-58.03	-58.03	-58.03
Total Equity	261.96	265.56	379.76	594.45	672.97	0.00	0.00	672.97	708.74	744.51	780.27	816.04	851.81
Liability + Equity	736.48	789.40	994.80	1,693.10	1,939.55	0.00	0.00	1,939.55	1,975.32	2,011.09	2,046.85	2,082.62	2,118.39
Variance	-0.01	11.47	15.49	-14.18	-0.35			-0.35	-0.35	-0.35	-0.35	-0.35	-0.35
Debt/Equity	1.40	1.43	0.87	0.99	1.10			1.10	1.05	1.00	0.95	0.91	0.87
Inventory Turnover	6.61	7.46	7.79	4.97	4.93			4.93	4.93	4.93	4.93	4.93	4.93
Inventory Turnover Days	55.25	48.91	46.85	73.45	73.97			73.97	73.97	73.97	73.97	73.97	73.97
Days Inventory Outstanding	59.86	55.46	55.52	87.60	88.06			88.22	88.06	88.06	88.06	88.06	88.06
Accounts Receivable Turnover	10.78	9.91	7.85	6.11	5.43			5.43	5.43	5.43	5.43	5.43	5.43
Accounts Receivable Turnover Days	33.87	36.85	46.52	59.70	67.16			67.16	67.16	67.16	67.16	67.16	67.16
Days Payable Outstanding	13.18	16.56	22.27	43.05	50.36			50.45	50.36	50.36	50.36	50.36	50.36
Days Sales Outstanding	33.87	36.85	46.52	59.70	67.16			59.70	67.16	67.16	67.16	67.16	67.16
Cash Conversion Cycle	80.54	75.75	79.77	104.25	104.86			97.47	104.86	104.86	104.86	104.86	104.86
Net tangible assets/share	\$4.89	\$4.87	\$6.72	\$10.64	\$12.16				\$12.83	\$13.49	\$14.16	\$14.83	\$15.50

	12 months ending 2009-12-31	12 months ending 2010-12-31	12 months ending 2011-12-31	12 months ending 2012-12-31	2011	2012	2013	2014	2015
Net Income	-24.64	-5.93	58.14	93.96	35.77	35.77	35.77	35.77	35.77
Depreciation	34.30	37.57	44.91	54.09	54.09	54.09	54.09	54.09	54.09
Net Income + Depreciation	9.66	31.64	103.05	148.05	89.86	89.86	89.86	89.86	89.86
Amortization	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Deferred Taxes	-2.95	-2.08	-0.45	17.17	0.00	0.00	0.00	0.00	0.00
Non Cash Items	10.72	15.26	16.48	-48.34	0.00	0.00	0.00	0.00	0.00
Change in Working capital	54.89	5.89	-114.85	13.29	0.00	0.00	0.00	0.00	0.00
Accounts Receivable	0.00	-21.49	-100.53	-108.27	0.00	0.00	0.00	0.00	0.00
Other Receivables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Inventory	0.00	-8.00	-72.73	-175.51	0.00	0.00	0.00	0.00	0.00
Prepaid Expenses	0.00	13.22	-6.19	-35.34	0.00	0.00	0.00	0.00	0.00
Accounts Payable	0.00	11.03	41.29	103.49	0.00	0.00	0.00	0.00	0.00
Cash from Operating Activities	72.32	50.71	4.43	130.17	89.86	89.86	89.86	89.86	89.86
Capital Expenditures Expenditures	-39.54	-28.85	-35.74	-65.74	-70.00	-70.00	-70.00	-70.00	-70.00
Long term investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Investing Activities	-1.36	0.11	-95.06	1.85	0.00	0.00	0.00	0.00	0.00
Cash from Investing Activities	-40.90	-28.74	-130.80	-63.89	-70.00	-70.00	-70.00	-70.00	-70.00
Financing Cash flow items	-7.11	-5.06	0.71	-1.09	0.00	0.00	0.00	0.00	0.00
Total Cash Dividends Paid	-0.70	-0.71	-0.81	-0.84	0.00	0.00	0.00	0.00	0.00
Issuance (Retirement) of Stock	1.14	0.28	0.52	0.93	0.00	0.00	0.00	0.00	0.00
Issuance (Retirement) of Current Portion Debt	-	-	-	-	0.00	0.00	0.00	0.00	0.00
Issuance (Retirement) of Long Term Debt	142.77	-6.17	15.96	-3.64	0.00	0.00	0.00	0.00	0.00
Cash from Financing Activities	136.10	-11.66	16.38	-4.64	0.00	0.00	0.00	0.00	0.00
Foreign Exchange effect	0.00	0.00	-0.33	-1.69	0.00	0.00	0.00	0.00	0.00
Beginning Cash Balance	61.66	229.18	239.50	129.17	424.39	444.25	464.11	483.96	503.82
Net Change in Cash	167.52	10.32	-110.33	59.94	19.86	19.86	19.86	19.86	19.86
Ending Cash Balance	229.18	239.50	129.17	189.11	444.25	464.11	483.96	503.82	523.68
Capex to Revenue	5.43%	3.27%	2.40%	3.61%	3.84%	3.84%	3.84%	3.84%	3.84%
Depreciation to Sales	4.71%	4.26%	3.02%	2.97%	2.97%	2.97%	2.97%	2.97%	2.97%
Amortization to Sales	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
A/R to Sales	9.28%	10.10%	12.75%	16.36%	16.36%	16.36%	16.36%	16.36%	16.36%
Distributable FCF/EV Yield	2.78%	1.94%	-11.18%	5.87%	1.76%	1.76%	1.76%	1.76%	1.76%
Dividend Yield	-0.09%	-0.09%	-0.10%	-0.10%	0.00%	0.00%	0.00%	0.00%	0.00%
FCF (Ops-Investing)	33.48	22.57	-30.50	65.27	19.86	19.86	19.86	19.86	19.86

SN VALUATION

LBO Debt Schedule

Ticker:

TWI

	Proforma	2013	2014	2015	2016	2017
Net Change in Cash	59.94	19.86	19.86	19.86	19.86	19.86
Current Portion Debt Repayment						
Long Term Debt Repayment						
Outstanding Debt	743.11	743.11	743.11	743.11	743.11	743.11
Current Portion Debt Balance	105.11	105.11	105.11	105.11	105.11	105.11
Long Term Debt Balance	638.00	638.00	638.00	638.00	638.00	638.00
Forward Libor Curve		3.00%	3.00%	3.00%	3.00%	3.00%
Spread		7.00%	7.00%	7.00%	7.00%	7.00%
Interest Rate		10.00%	10.00%	10.00%	10.00%	10.00%
Interest Expense		74.31	74.31	74.31	74.31	74.31
Cash Balance		189.11				
Interest @ 1.0%		1.89	1.89	1.89	1.89	1.89
Net Interest Expense/(Income)		72.42	72.42	72.42	72.42	72.42
Net Interest Rate		11.35%	11.35%	11.35%	11.35%	11.35%
EBITDA		127.45	127.45	127.45	127.45	127.45
EBITDA/Interest Expense Coverage		1.72	1.72	1.72	1.72	1.72

Interest Rate Coverage Table

Debt Rating					
AAA					
AA					
A+					
A					
A-					
BBB					
BB+					
BB					
B+					
B					
B-	B-	B-	B-	B-	B-
CCC					
CC					
C					
D					

*Source: NYU; Professor Damodaran

Altman Z Score

Company Name:

Titan International

Ticker:

TWI

Period	2009	2010	2011	2012	2013	2014	2015	2016	2017
Working Capital	375.14	389.00	400.55	893.95	913.81	933.67	953.52	973.38	993.24
Total Assets	736.47	780.87	1,010.29	1,939.20	1,974.97	2,010.74	2,046.50	2,082.27	2,118.04
X1	0.51	0.50	0.40	0.46	0.46	0.46	0.47	0.47	0.47
Retained Earnings	16.38	9.74	67.05	215.00	250.77	286.54	322.30	358.07	393.84
Total Assets	736.47	780.87	1,010.29	1,939.20	1,974.97	2,010.74	2,046.50	2,082.27	2,118.04
X2	0.02	0.01	0.07	0.11	0.13	0.14	0.16	0.17	0.19
EBITDA	-18.89	30.94	116.03	174.70	127.45	127.45	127.45	127.45	127.45
Total Assets	736.47	780.87	1,010.29	1,939.20	1,974.97	2,010.74	2,046.50	2,082.27	2,118.04
X3	-0.03	0.04	0.11	0.09	0.06	0.06	0.06	0.06	0.06
Market Value of Equity	811.13	811.13	811.13	811.13	861.99	916.04	973.48	1,034.52	1,099.38
Total Liabilities	474.52	508.84	615.04	1,266.58	1,266.58	1,266.58	1,266.58	1,266.58	1,266.58
X4	1.71	1.59	1.32	0.64	0.68	0.72	0.77	0.82	0.87
Net Sales	727.60	881.59	1,487.00	1,820.68	1,820.68	1,820.68	1,820.68	1,820.68	1,820.68
Total Assets	736.47	780.87	1,010.29	1,939.20	1,974.97	2,010.74	2,046.50	2,082.27	2,118.04
X5	0.99	1.13	1.47	0.94	0.92	0.91	0.89	0.87	0.86
Altman Z Score	2.57	2.83	3.21	2.33	2.28	2.31	2.34	2.37	2.40

$$Z = 1.2 \times X1 + 1.4 \times X2 + 3.3 \times X3 + 0.6 \times X4 + 1.0 \times X5$$

Z-SCORE ABOVE 3.0 –The company is considered 'Safe' based on the financial figures only.

Blue

Z-SCORE BETWEEN 2.7 and 2.99 – 'On Alert'. This zone is an area where one should 'Exercise Caution'.

Green

Z-SCORE BETWEEN 1.8 and 2.7 – Good chance of the company going bankrupt within 2 years.

Yellow

Z-SCORE BELOW 1.80- Probability of Financial Catastrophe is Very High.

Red

Year	Present Value	Holding Period					Terminal Value			Sale Price
	0	1	2	3	4	5	6	7	8	TBV at Year 5 + 3 Years FCF
Tangible Book Value	650.97	686.74	722.51	758.27	794.04	829.81				829.81
Annual Change		35.77	35.77	35.77	35.77	35.77				
Annual FCF	64.43	19.86	19.86	19.86	19.86	19.86	19.86	19.86	19.86	59.57
Annual Op. Cash Flow	130.17	89.86	89.86	89.86	89.86	89.86	89.86	89.86	89.86	
Annual PP&E Investment	(65.74)	(70.00)	(70.00)	(70.00)	(70.00)	(70.00)	(70.00)	(70.00)	(70.00)	
Today's Tangible Book Value	650.97	683.35	717.34	753.03	790.49	829.81				889.38
Intrinsic Value IRR	4.97%									
Market Price	811.13	826.21	841.57	857.22	873.15	889.38				889.38
Market Price IRR	1.86%									

Debt	50.00%	405.57
Equity	50.00%	405.57
Total	100.00%	811.13

	Present Value	Holding Period					Terminal Value			Sale Price
	Historic	ProForma	1	2	3	4	5			
Book Equity	672.97	405.57	420.57	435.58	450.59	465.60	480.61			
Goodwill	22	160.16	160.16	160.16	160.16	160.16	160.16			
Debt	638	1,043.57	1,043.57	1,043.57	1,043.57	1,043.57	1,043.57			
Debt Interest Rate		10.00%	10.00%	10.00%	10.00%	10.00%	10.00%			
Additional Interest Expense		31.94	31.94	31.94	31.94	31.94				
Tangible Book Value	650.97	245.40	260.41	275.42	290.43	305.44	320.45			320.45
Annual Change			15.01	15.01	15.01	15.01	15.01			
Annual FCF	64.43		(0.90)	(0.90)	(0.90)	(0.90)	(0.90)	(0.90)	(0.90)	(2.70)
Annual Net Income	95.55		15.01	15.01	15.01	15.01	15.01	15.01	15.01	
Annual Op. Cash Flow	130.17		69.10	69.10	69.10	69.10	69.10	69.10	69.10	
Dividend Payments										
Annual PP&E Investment	(65.74)		(70.00)	(70.00)	(70.00)	(70.00)	(70.00)	(70.00)	(70.00)	
Debt Paydown	0.00							0.00	0.00	0.00
Sale Price in Year 5										317.75
Capital Left for Equity Investor										317.75
Dividend Payments										0.00
Total Cash In Flow										317.75
Invested Equity	405.57	386.25	367.85	350.33	333.64	317.75				
IRR	-4.76%									

We assume the debt taken on by the investor is now on the Co's books, so the investor has no more liability from the deal.

<u>Value Creation</u>	
TBV Growth (equals sum of NI Year 1-5)	75.05
Cash Flow (Year 6-8)	-2.70
	72.34

<u>Value Dilution</u>	
Debt	405.57
Goodwill	138.16
Additional Interest	159.68
	703.41