

Harman International Industries Inc.

NYSE: HAR

Analyst: Ryan Burke
Sector: Consumer
Discretionary

BUY

Price Target: \$134.25

Key Statistics as of 10/10/2015

Market Price:	\$105.33
Industry:	Electronic Equipment
Market Cap:	\$7.50 B
52-Week Range:	\$84.41 – 149.12
Beta:	0.5289



Thesis Points:

- The recent Harman price drop is purely macro in nature, and therefore the company is undervalued at an attractive price.
- Recent acquisitions result in product differentiation and organic growth on the horizon.
- Stable growth in a volatile market makes Harman a prudent investment

Company Description:

Harman International Industries Inc. designs and engineers connected products and solutions for automakers, consumers and enterprises worldwide, including connected car systems; audio and visual products, enterprise automation solutions; and connected services. With leading brands including AKG®, Harman Kardon®, Infinity®, JBL®, Lexicon®, Mark Levinson® and Revel®, Harman is admired by audiophiles, musicians and the entertainment venues where they perform around the world. More than 25 million automobiles on the road today are equipped with Harman audio and connected car systems. The Company's software services power billions of mobile devices and systems that are connected, integrated and secure across all platforms, from work and home to car and mobile. Harman has a workforce of approximately 27,000 people across the Americas, Europe, and Asia and reported sales of \$6.2 billion during the 12 months ended June 30, 2015. The company was founded in 1980 and is headquartered in Stamford, Connecticut.



Thesis

Amidst rocky and unpredictable economic times such as these, the only thing clearer than a buy in Harman International Industries Inc. is the sound-quality from their speakers. There is an undervaluation occurring in the market place that positions Harman at an attractively low price. 51% percent of Harman's revenue comes from providing audio systems for automotive companies. This results in a tight correlation with the volatile industrial sector.

Ex. 1



By itself, Harman has exhibited strong performance and shows various opportunities for growth in the future. Quarter 4 concluded a record year for Harman. Revenue was \$6.2 billion, an increase of 22%, EBITDA improved 32% to \$699 million, and EPS grew by 39% to \$5.71. Additionally several key software and hardware acquisitions lead to opportunities for considerable organic growth in the near future. According to my calculations, a true price estimate for Harman is in the neighborhood of \$135. What an investor can expect from Harman is a trustworthy and consistent return during turbulent economic times.

5 Strategic Pillars

What makes Harman who they are? To better understand their identity, one must understand the 5 strategic pillars that constitute the foundation of the company.

1. **Technology Leadership**
2. **Capitalization on Harman Iconic Brands**
3. **Grow in Emerging Markets.**
4. **Optimize Cost and Capital Structure.**
5. **Diversify the Portfolio.**

Let's break down each pillar and explore them in depth.

First, Technology Leadership. Harman introduced numerous innovations throughout the past year, including an expansion of their scalable platform to combine certain features of Harman embedded systems with smartphone apps, including Apple CarPlay, Google's Android Auto, and Baidu's CarLife in China.

Second, Capitalization On Harman Iconic Brands. Harman is the official headphone, speaker and audio partner of the National Basketball Association. In May, two time NBA All-Star and MVP Steph Curry was named the newest brand ambassador of HARMAN's JBL Audio brand globally.

Third, growth in the Emerging Markets. Despite challenging economic environments in Brazil, Russia and India, and recent headwinds in China, Harman surpassed the \$1 billion mark in revenues for the first time in BRIC markets. China now contributes nearly \$700 million to the top line, which is nearly 10% of Harman's revenue. That creates 64% CAGR over the last six years.

Fourth, Optimization of Cost and Capital Structure.

In May, Harman made their debt capital markets debut in the U.S. and European markets. In the U.S., they issued \$400 million of 10-year senior unsecured notes with a coupon of 4.15%. They followed that issuance with the seven-year €350 million unsecured offering with the coupon of 2%. These two transactions freed-up close to \$800 million of capacity under their new \$1.2 billion revolving credit facility, and brought total liquidity to \$1.6 billion. While they will have increased interest cost in fiscal 2016, Harman is able to finance their acquisitions at attractive long-term rates and also maintain our investment grade credit ratings by both Moody's and Standard & Poor's.

This year Harman generated \$360 million of free cash flow, which includes cash flow from operations less CapEx driven by strong earnings and effective working capital management. With sustainable robust cash generation and no significant debt maturities for the next five years, Harman has the ability to invest in CapEx projects and other projects to drive organic growth. CFO Sandra E. Rowland states in the Q4 2015 Earnings Call that Harman's current focus is to create value from their strategic acquisitions, but they Harman remains open to bolt-on acquisitions including those that offer competitive technologies such as active safety and cyber security.

5. Diversify The Portfolio. Harman completed three major acquisitions during this fiscal year. Symphony Teleca, Redbend, and Bang & Olufsen. Symphony Teleca and Redbend are software companies that compliment Harman's Infotainment and Service segments by offering

cyber security packages and live-over-the-air updates to their automotive audio products. Additionally, this fiscal year Harman has greatly expanded their Services offering, and consequently launched a separate Services division starting July 1, 2015. These transformative actions provide Harman with immediate scale to grow leadership in software and services for the connected car, and extend their reach into mobile communications and enterprises. The acquisition of Bang & Olufsen automotive audio provides Harman as an unparalleled house of brands to address the growing demand for differentiated audio solutions among automakers and for different vehicle segments globally.

Application of Strategy

Harman has four segments for which it operates out of, Infotainment, Life Style, Professional, and Services. Let us explore how each segment performed this past year.

Infotainment: Harman secured new business with Deere & Company to design new infotainment systems for their John Deere farm equipment. The Deere award is Harman's second win in the commercial infotainment market following their previously announced award with MAN/Scania. Harman was also awarded follow-on business from Chinese automaker, Guangzhou Automotive, a joint-venture partner of FIAT Chrysler Automobiles.

Lifestyle: Harman released the industry's first Ultra-Luxury headphone, the AKG N90Q this quarter. New branded solutions that launched during the quarter were car and audio systems for Maserati, BMW 7 series, Lincoln Continental, Hyundai Santa Fe, and Audi A4. Additionally, Harman received new awards from BMW, Daimler, KIA and Lexus among others.

Professional: Despite sluggish growth in Europe and Emerging Markets, there was revenue growth in the quarter (15.1%). Projects that are underway include the NATO headquarters in Brussels, The Daytona National Speedway in Florida, and the SuperVia Urban Train system in Brazil in preparation for the 2016 Olympic Games (which will serve roughly 165 million passengers every year).

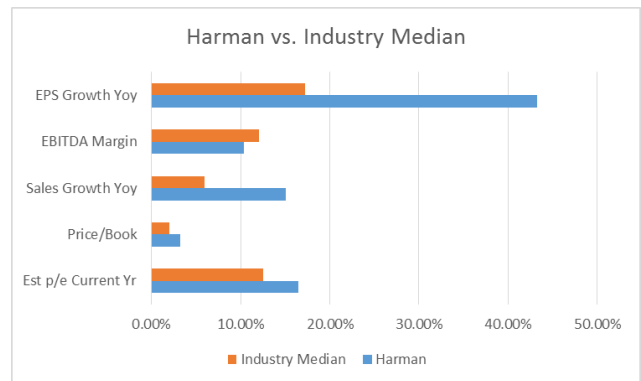
Services: This segment was forged out of the recent acquisition of Symphony Teleca and Redbend. These software companies make Harman a heavy weight

amongst connected car systems providers. Harman recently received the prestigious Automotive SPICE (Software Process Improvement and Capability dEtermination) Level 3 Certification.

Industry Performance

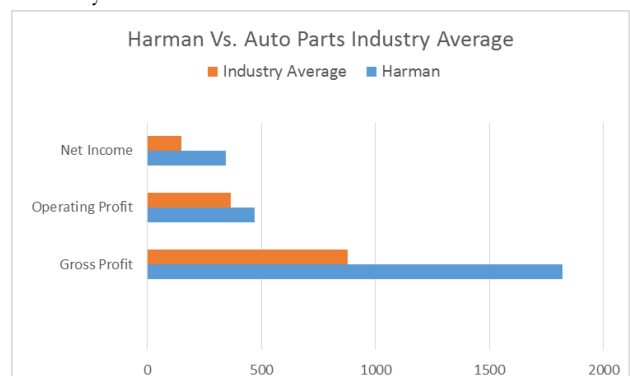
The audio industry is fragmented and includes numerous manufacturers offering audio products that vary widely in price, quality and distribution methods. In the audio market, Harman's main competitors are Bose, Pioneer, ASK foster electric and Panasonic. In the audio systems for to automotive manufacturers, Harman's main competitors include Alpine, Bosch, and Panasonic.

Ex 2.



Side by side analysis exhibits Harman's above average performance in a variety of metrics. Harman receives 51% of total revenue from Auto Parts and 49% from consumer electronics. Exhibit 2 is a weighted average of both segments.

Profitability wise, Harman exhibits favorable metrics compared to the audio part supplier to the automotive industry.



Concerns

The inherent risks involving Harman International Industries Inc. are there close ties to the automotive industry and their rapid revenue growth coming from the

volatile markets in China.

Automotive Correlation

One of Harman's largest accounts is Volkswagen. When the emission scandal broke out in September, Harman's stock price was initially pulled down with the German auto manufacturer but recovered much quicker.



This dependency to the automotive industry has led Harman into some adversity this past year. Over the Summer, Jeep was exposed to a cyber security hack through its software ecosystem Uconnect. This software happened to house a Harman head unit inside. Harman's acquisitions, Symphony Teleca, a software company, and Redbend, a company that brings live over the air software updates supplemented the software patches in the vulnerable cars. Despite this controversy, Harman has proved that its systems are equipped to face unpredictable changes in the future and preserve the integrity of automotive cyber security for years to come. This will lead to organic growth in the future. From a culpability stand point, CEO Dinesh Paliwal, was asked if in the future a hacker finds a hole in a fully secure automobile, who would be responsible from a warranty or re-cost stand point. Dinesh responded that "In the end, it's the car companies who are fully responsible".

China

Revenues in China grew 30% to \$700 million in the past year which composes 10% of total revenue. On a demand basis 1% decrease in demand, would impact their revenue by, \$4-5 million which translates to a reduction in the bottom line by approximately \$1 million. It will be important to any investor to monitor the Chinese Automotive industry.

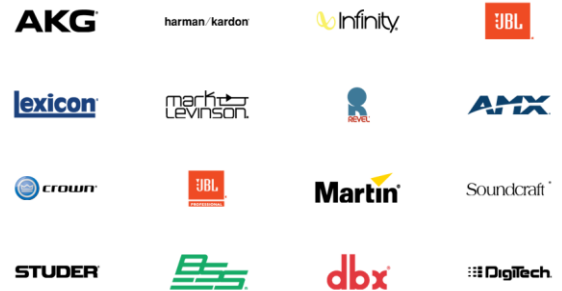
Summary

Harman is a safe investment in a volatile time to invest. Recent acquisitions provide a profitable horizon full of opportunities for organic growth. Harman's relentless

focus on software development in the automotive environment continues to differentiate the industry and expand their product selection. Macro-economic trends have depressed the value of this company at an attractive price that will be realized in the near future. This belief can be supported by the past two years of performance. Harman has grown revenue 40% with \$2 billion of additional revenue, increased EBITDA nearly 70% by adding \$300 million of incremental EBITDA, and increased earnings per share by 86%. The calculated intrinsic value of \$134.25 is fully realizable once the industrial sector picks up momentum.



HARMAN BRANDS



CENTER FOR GLOBAL FINANCIAL STUDIES

Harman International Industries		HAR	Analyst Ryan Burke	Current Price \$105.33	Intrinsic Value \$134.25	Target Value \$144.03	Divident 1%	1-y Return: 38.05%	BULLISH	
General Info		Peers		Market Cap.	Management					
Sector	Consumer Discretionary	Autoliv, Inc.		\$3,634.32	Professional	Title	Comp. FY2013	Comp. FY2014	Comp. FY2015	
Industry	Household Durables				Paliwal, Dinesh	Chairman, Chief Executive Officer and	\$8,763,411	\$11,365,521	\$0	
Last Guidance	August 1, 2015				Augsburger, Blake	Executive Vice President, Country Mgr	\$1,441,232	\$2,541,533	\$0	
Next earnings date	NM				Parker, Herbert	Executive Vice President of Operation	\$1,707,710	\$2,828,533	\$0	
Market Data					Mausser, Michael	Executive Vice President and Presiden	\$1,632,340	\$2,683,632	\$0	
Enterprise value	\$7,872.08				Rowland, Sandra	Chief Financial Officer and Executive V	\$0	\$0	\$0	
Market Capitalization	\$623,466.45				Slump, David	Executive Vice President of Operation	\$0	\$0	\$0	
Daily volume	40.21				Past Earnings Surprises					
Shares outstanding	71.7				Revenue	EBITDA	Norm. EPS	Standard Error of "Surprise"		
Diluted shares outstanding	70.87				Last Quarter	7.53%	6.53%	4.58%	0.83%	
% shares held by institutions	60.72%				Last Quarter-1	-1.34%	-9.73%	-3.94%	2.50%	
% shares held by insiders	0.67%				Last Quarter-2	7.12%	19.62%	39.84%	3.53%	
Short interest	4.03%				Last Quarter-3	5.53%	8.51%	18.02%	3.75%	
Days to cover short interest	2.32				Last Quarter-4	3.60%	0.43%	3.31%	1.01%	
52 week high	\$143.12				Standard Error of Revenues prediction	1.6%	4.8%	7.7%	3.01%	
52-week low	\$84.41				Standard Error of Op. Cost pr	1.6%				
5y Beta	1.87				Imputed Standard Error of Op. Cost pr	4.6%				
6-month volatility	38.71%				Imputed Standard Error of Op. Cost pr	6.0%				
Proforma Assumptions										
Convergence Assumptions		General Assumptions			Items' Forecast Assumptions				Other Assumptions	
All base year ratios linearly converge towards the Sub-industry ratios over an explicit period of 10 years		Money market rate (as of today)	0.27%		Base year (LTM)	Convergence period (Sub-indust.)	adjustment per year	Tobin's Q	80%	
		Risk-Free rate (long term estimate)	2.82%	Operating Cash/Rev.	0.00%	0.00%	0.0%	Excess cash reinvestment	Money market rate	
		Annual increase (decrease) in interest rates	0.1%	NW/Rev.	2.36%	11.77%	0.3%	Other claims on the firm's asse	\$0.00	
		Marginal Tax Rate	37.5%	NPPE/Rev.	8.37%	12.41%	0.3%	Capitalization		
Country Risk Premium	6.0%	Dpr/NPPE	22.36%	27.20%	0.4%	100% of all rent expenses are capitalized and amortized 'straightline' over 10 years				
Forecast Year		Revenue Growth Forecast		Revenue (\$)		MOPAT MARGIN		100% of all R&D expenses are capitalized and amortized 'straightline' over 10 years		
LTM				\$6,155.30	Op. Exp./Rev.	88.01%	83.24%	E&P expenses are not capitalized		
FY2016	14.2%			\$7,027.23	SBC/Rev.	0.56%	0.37%	SG&A expenses are not capitalized		
FY2017	11.2%			\$7,816.34	Rent Exp./Rev.	0.88%	1.18%	Valuation Focus		
FY2018	8.2%			\$8,460.83	R&D/Rev.	6.18%	7.71%	DCF Valuation	100%	
FY2019	5.6%			\$8,336.20	E&D/Rev.	0.00%	0.00%	Relative valuation	0%	
FY2020	4.3%			\$9,321.28	SG&A/Rev.	14.17%	18.70%	Distress Valuation	0%	
FY2021	3.7%			\$9,661.34	ROIC	16%	16.82%	Monte Carlo Simulation Assumptions		
FY2022	3.3%			\$9,383.42	EV/Rev.	1.37x	1.24x	Revenue Growth deviation	Normal (0%, 1%)	
FY2023	3.2%			\$10,233.26	EV/EBITA	11.31x	6.38x	Operating expense deviation	Normal (0%, 1%)	
FY2024	3.1%			\$10,616.67	Debt/Equity	68%	19%	Continuing Period growth	Triangular (5.335%, 6%, 5.665%)	
FY2025	3.0%			\$10,333.51	Unlevered beta	0.66	1.23	Country risk premium	Triangular (2.31%, 3%, 3.03%)	
Continuing Period	3.0%			\$11,267.70	Cost of Borrowing	0%	4%	Intrinsic value of(\$)	\$0.03	
					Dividends/REV	2%	5%	1-year target price of(\$)	\$0.10	
Valuation										
Forecast Year	ROIC	WACC	Invested Capital	Enterprise Value	Claims on Assets and Dilution	Shares Outstanding	Price per Share	Monte Carlo Simulation Results		
LTM	15.7%	5.5%	\$3,189.65	\$10,067.74	\$1,064.50	71.7	\$131.64	The 3σ(z)-adjusted intrinsic value is \$134.25; the 3σ(z)-adjusted target price is \$144.03; and the analysts' median target price is \$129.56		
FY2016	13.3%	6.1%	\$3,670.23	\$10,549.51	\$847.05	71.7	\$141.32			
FY2017	13.2%	6.6%	\$4,194.78	\$11,082.31	\$752.88	71.7	\$150.53			
FY2018	16.8%	7.1%	\$4,638.11	\$11,581.75	\$655.26	71.7	\$158.33			
FY2019	18.3%	7.6%	\$5,145.23	\$12,025.25	\$536.76	71.7	\$165.34			
FY2020	17.3%	8.0%	\$5,565.70	\$12,457.67	\$407.77	71.7	\$173.55			
FY2021	17.7%	8.5%	\$5,378.67	\$12,905.00	\$238.62	71.7	\$181.63			
FY2022	17.5%	8.3%	\$6,335.31	\$13,384.44	\$122.33	71.7	\$189.88			
FY2023	17.3%	3.4%	\$6,824.34	\$13,308.46	\$14.04	71.7	\$198.54			
FY2024	17.2%	3.8%	\$7,268.14	\$14,487.50	-\$83.30	71.7	\$207.73			
FY2025	17.0%	10.2%	\$7,723.36	\$15,131.62	-\$169.76	71.7	\$216.65			
Continuing Period	16.8%	10.4%	\$7,461.58					Sensitivity Analysis		
		Revenue growth variations account for 35.3% of total variance								
		Risk premium's variations account for 2.5% of total variance								
		Operating expenses' variations account for 1.4% of total variance								
		Continuing period growth variations account for 0.2% of total vari								