



logovaults

FIN 527: Stock Analysis Project

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GoPro Inc. – Executive Summary

GoPro makes wearable HD cameras designed for the consumer market. It is headquartered in San Mateo, CA, and as of September 30, 2014, had 869 employees. On June 26, 2014, GoPro made its IPO on NASDAQ, under the symbol “GPRO”. Financial highlights include:

- In FY2014, company revenue increased 41 percent to \$1.4B from sales of 5.2M cameras, 2.4M of which were sold in Q4. This sales figure in Q4 was larger than sales for all of FY2012.
- Sales are direct to consumers on GoPro.com, and through retail store channels.
- GoPro stock has seen wild fluctuations. It jumped 30 percent on its offering date (from \$24 to \$31.44) and rose to \$94 on October 7. It’s been on a steady decline since then and now trades at \$45 (February 25).
- GoPro’s percentage of R&D expenses to revenue increased to 10.9 percent in FY2014, up from 6.9 percent in FY2012 despite dramatic sales growth.
- GoPro’s profitability is notable for a new company, and it has a healthy ROE ratio of 20 percent, with low debt.
- This report’s analysis suggests GoPro’s current stock price is within the calculated range of the company’s intrinsic value.
- The high P/E ratio for a consumer electronics company of 48.91 (as of February 25) suggests investor bias for GoPro exists, likely stimulated by the social media aspect of its business.

The company also makes a variety of harnesses/mounts for attaching the cameras to helmets, bicycles, etc., enabling a unique “point of view” feature that is core to GoPro’s brand. The wearability feature of GoPro cameras places it in the fledging wearable device industry, expected to reach retail sales of \$53.2 billion by 2019, up from an estimated \$4.5 billion in 2014 (Smart Wearables Market).



Source:
GoPro.com

GoPro hopes to form a business model around its media platform, rather than relying purely upon consumer electronics hardware for revenue as it does currently. Sales of GoPro cameras have been largely driven by social media sharing of GoPro-derived videos. GoPro has a downloadable application for editing and sharing videos on social media outlets such as YouTube and Facebook, and downloads exceeded 2.8M in Q4 FY14, bringing the cumulative total to 13M.

GoPro is gaining market share in digital cameras/camcorders during a time when smartphones have also been capturing volume from the same digital capture market. Three camera-making competitors this report has chosen to focus on are Sony, JVC and Garmin. Competition is fierce within the consumer electronics industry, and the commoditization of wearable cameras and entry of Apple and Samsung into this market is widely expected, both looming risks for GoPro.

GoPro has publicly stated it plans to take these risks on by using social media to stimulate brand awareness of its cameras and accessories. Long term, the company expects its growing media platform to be a significant source of advertising or licensing revenue.

The company’s ability to withstand the coming robust entry of competitive products from both traditional camera manufacturers and smartphone manufacturers will determine growth and the attractiveness of GoPro as an investment, and the stock’s recent price slide has reflected this concern.

Company Description & Economic Outlook

Company Overview

After a surfing trip to Australia with friends, founder and CEO Nicholas Woodman lamented his inability to capture the memorable moments of the trip. He set out to create a camera small and durable enough to be brought onto a surfboard, which ultimately led to the creation of GoPro.

Incorporated in Delaware, GoPro was originally Woodman Labs, Inc. GoPro was founded in 2004 and is headquartered in San Mateo, CA. As of September 30, 2014, GoPro had 869 full-time employees. On June 26, 2014, GoPro made its initial public offering on the NASDAQ, under the symbol “GPRO”, at \$24 per share. It does not pay dividends and will not in the foreseeable future.

GoPro develops and manufactures personal HD digital cameras for the consumer to capture video and photos of anything they please. GoPro’s first HD camera debuted in 2009. The camera is known as the “HERO,” and the latest version of the camera is the “HERO4.” The cameras are small and portable, and come with a waterproof, durable plastic case that makes the camera usable even in extreme outdoor conditions. The target user base, and early adopters of the cameras, has primarily been young extreme sports enthusiasts and outdoor adventurers that have a penchant for promoting their activities on social media.

Additionally, GoPro has developed camera mounts that attach the camera to a wide variety of objects, such as sports equipment, animal collars, remote control airplanes/helicopters and many others. It also provides video software and editing tools, a product named GoPro Studio. The cameras and accessories are sold through retailers, wholesale distributors, and directly via its website. GoPro shipped 2.4 million cameras in Q4 2014 and 5.2 million in all of the 2014 fiscal year.

According to a study by Google in 2014, the total length of footage of every video uploaded to YouTube with “GoPro” in the title amounted to over 2.8 years. The average number of views of GoPro-tagged videos on YouTube was around half a million. Because of the high percentage of GoPro camera buyers are voluntarily sharing their videos and tagging them as GoPro on social media, the company is confident that it can develop a revenue-producing strategy that capitalizes on its media brand. This was a key part of the company’s decision to go public. To date, nearly all of the company’s revenue is hardware-derived from camera and accessory sales.

Going forward, GoPro has stated that it will invest in the development of cross platform content management applications. These applications would further the social media usability of GoPro-derived video and images, making it easier to share content anywhere and on any screen. The idea is that this will encourage current users to utilize the GoPro’s they have purchased to participate in free advertising for the company by sharing their GoPro-branded content widely with other consumers.

GoPro is considering all possible activities and scenarios where the cameras could be used. This includes hunting, fishing, sports, music/concerts, and the like. In this vein, GoPro recently

announced a partnership with the National Hockey League (NHL) and National Hockey League Players' Association (NHLPA). The NHL will use GoPro's equipment to deliver in-game content in real-time during live broadcasts.

GoPro's content streaming platforms are also continuing to grow, as shown with its recent channel partnership with IPTV provider Roku.

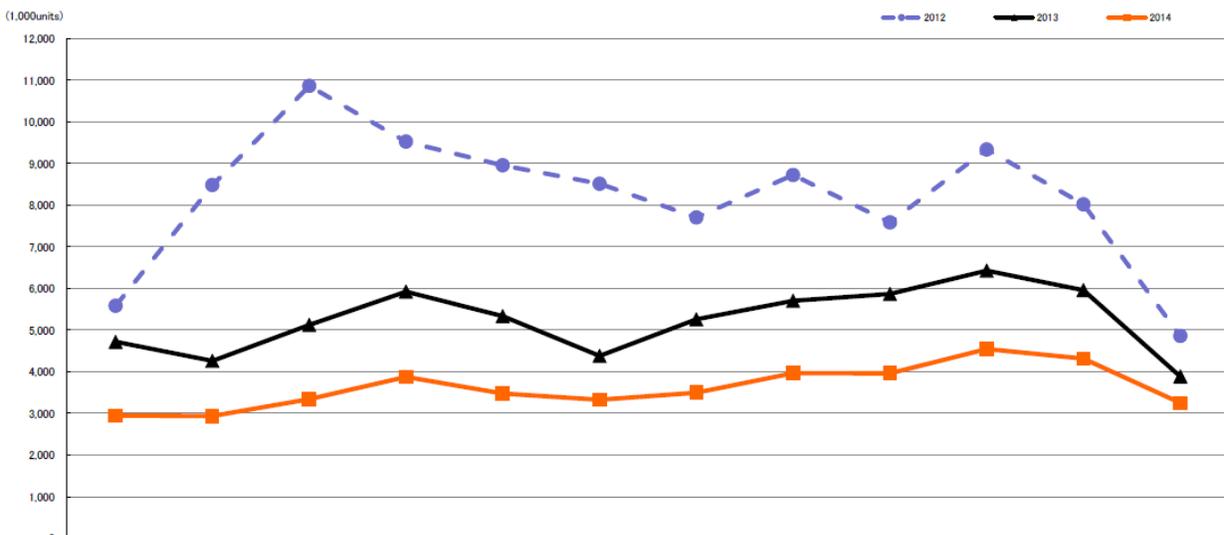
Competitors & Industry

GoPro competes within the sector of "Consumer Goods" and the industry of "Photographic Equipment and Supplies." It can be further categorized into the subcategory of "Action Sports Videography and Photography." GoPro has capitalized on the fact that this subsection of the market did not have a standout consumer brand. It became very apparent to the company in its early stages that the everyday consumer, not only professional athletes or extreme adventurers, wanted the ability to capture their lifestyle activities and hobbies, and to be able to share it broadly. The proof of this latent demand lies in the heavy, mainstream social media viewing activity of the typical GoPro video.

The company established its brand similarly to Beats Electronics, a major headphone manufacturer acquired for \$3 billion in August 2014 by Apple Inc. Beats is known for creating an increasingly popular consumer electronics business model: focus on lifestyle marketing and smart product placement in popular media platforms, and sell early on at a premium gross margin to imply a high-end value. Just as Beats paired its headphones with famous professional athletes and pop stars to establish its lifestyle brand, GoPro has sponsored well-known extreme sports figures and outdoor documentary makers. The result is today's GoPro social media engine, which continues to build and differentiate the brand.

Figure 1.1: Digital Camera Industry Volume Decline

Quantity of Total Shipment of DSC [Worldwide] Comparison of 2012, 2013 and 2014 :Jan.-Dec.



Source: Camera & Imaging Products Association (Note: DSC stands for "digital capture devices")

As Figure 1.1 above shows, the market for standalone digital cameras and camcorders is drastically decreasing. Smartphones with built-in HD cameras have eaten away the size of the digital capture device market, and GoPro has managed to take market share from the traditional Japanese camera makers such as Canon, Nikon and Olympus as well during this time. Although GoPro has succeeded in growing their market share over the last several years, it is widely expected that GoPro will face more competition from these incumbents, other lifestyle-camera startups, and smartphone manufacturers. This includes Samsung and Apple's emerging wearable solutions.

At center of this evolution away from the standalone, traditional digital camera to more niche, lifestyle-centric devices is the premium it draws from the general consumer. Many competitors also see the potential of this model. Similar products include HTC's "RE," Polaroid's "Cube," Panasonic's "HX-A500," Garmin's "Virb Elite," JVC's "Adixxion", and Sony's "AS100V." Each of these products offer a similar value proposition to GoPro's Hero: they are small, durable, portable, and offer HD video specifications that are competitive with GoPro's. For simplicity, this report's Fundamental Analysis section will limit the focus to three competitors: Sony, JVC and Garmin.

Consumer Electronics Industry

The consumer electronics industry is cyclical. Sales growth is highly correlated to an increase in disposable income, and GoPro relies on the United States for more than 70 percent of its revenue (as of FY2014 Q4). So, the diversification of sales to other regions is paramount to becoming a mature company in this space, as it lowers its international financial risks such as foreign exchange risk or political risk.

There is a low barrier to enter the consumer electronics industry. There are many companies with the requisite resources and technology – and closer access to the Asian supply chain – that could present a challenge to GoPro's market leadership in the future. GoPro, in its startup stage, has established a leading market share in its chosen, high-end consumer electronics subcategory within the USA, but it is not necessarily due to brand loyalty. If a competitor could provide something close in value at a cheaper cost, the consumer likely would have no problem switching brands. More large competitors are entering this wearable electronics segment as it enters the consolidation phase.

GoPro itself is entering this consolidation phase, where it will likely establish more stability in its revenue projections and lose some of its recent, explosive growth to competitors. One source of this competition is the extra cost for these wearable-type HD cameras: many consumers already own smartphones with high-quality cameras embedded. Apple, for example, represents a potential competitor as it has been reported that it will soon be offering product accessories – or new phone versions - that transform its established iPhone into a wearable device. A significant area of potential competition is the likelihood that smartphones such as the iPhone or Samsung Galaxy will offer GoPro-like accessories such as waterproof cases, "selfie" sticks, and mounts, etc., sapping a potentially major source of GoPro's growth by removing the consumer's need to invest in a separate camera.

Economic Outlook

The rebounding of the U.S. economy from the recession that followed the 2008 financial industry crisis has resulted in an increase of personal income. This increase in personal income has directly benefited GoPro, which during its critical startup stage sold discretionary products as the country emerged from a macroeconomic trough. One of the fastest-growing segments of technology company investment has been social media, and GoPro has benefited from the timing of its inception: the explosive growth of online, social media sharing occurred right about this time.

With these aspects in mind, it looks like sales for the industry and GoPro will change with the direction of the economy. For now, that direction is up as the economy approaches a likely peak. The difficult part for GoPro going forward will be its competition. With market space available to be captured, continuing entrants into the industry, and a recovering economy, GoPro will have to continue to establish itself as the top contender and household name for videography on the go.

The Macro-economy

Over the last year, the purchasing power of the U.S. dollar has steadily increased over time against major world denominations (Foreign Exchange Rates – H.10). This trend has been continuing for the most part since 2010. According to the Bureau of Economic Analysis' U.S. GDP report, real gross domestic product increased at an annual rate of 5.0 and 2.6 percent in the third and fourth quarter of 2014, respectively (Mataloni). The report also announced an increase of 3.3 percent over each of the last two quarters to disposable personal income. In the last ten years, unemployment was at its highest in October of 2009 at 10 percent (Databases, Tables & Calculators by Subject). Through January 2015, the rate was 5.7 percent, much lower than in 2010.

Stock Performance

Encouraged by its sales performance in 2013 (\$985 million), GoPro became a publicly-traded company on June 26th, 2014, a day in which it issued 17.8 million shares (at \$24.00 a share) (Solomon). Figure 1.2 shows that after its IPO, GoPro experienced a drastic price appreciation that led many industry analysts to perceive GoPro as overvalued. Until recently, GoPro’s valuation continued to retain a prominent position in the market with relation to its competitors (Pitti). Even with GoPro’s long-term uncertainty and relative newness in the consumer electronics industry, the stock holds a beta of 0.66 - suggesting that the stock is less volatile than the overall market. If GoPro can continue to innovate upon its core HERO camera product line and related accessories, it should continue to grow at an impressive rate and offer advantageous returns. GoPro’s long term stock success, however, will be dependent on the company’s response to serious competitors entering the wearable camera market.

Figure 1.2: GoPro’s stock price performance



Figure 1.3

Trading Information	
Stock Price History	
Beta:	0.66
52-Week Change ³ :	N/A
S&P500 52-Week Change ³ :	13.92%
52-Week High (Oct 7, 2014) ³ :	98.47
52-Week Low (Jun 26, 2014) ³ :	28.65
50-Day Moving Average ³ :	53.97
200-Day Moving Average ³ :	63.04
Share Statistics	
Avg Vol (3 month) ³ :	7,642,170
Avg Vol (10 day) ³ :	11,007,000
Shares Outstanding ⁵ :	126.85M
Float:	54.86M
% Held by Insiders ¹ :	0.63%
% Held by Institutions ¹ :	13.80%
Shares Short (as of Jan 30, 2015) ³ :	15.11M
Short Ratio (as of Jan 30, 2015) ³ :	2.60
Short % of Float (as of Jan 30, 2015) ³ :	N/A
Shares Short (prior month) ³ :	14.29M

In the recent months, GoPro has experienced a decline in its stock price, dropping 9.22 percent in the last month (see Figure 1.3). Even with these recent drops, GoPro has the potential to provide profitable earnings per share returns over the next year, with current expectations for December of 2015 at 1.38 and December of 2016 at 1.68. In order to achieve the improved earnings per share forecasted and future stock price growth, GoPro will need to be successful in further innovation of their hardware (cameras) and development of their media business.

A concern for investors has been that within a 52 week span, there has been a drastic differentiation between weekly highs and lows, spanning 69.82, with its highest position at 98.47 and lowest point at 28.65. Even with the presence of these concerns, the robust expected growth of the wearable electronics industry,

assumed to be 221 percent by Yahoo Finance, provides an opportunistic scenario for GoPro to capture the majority of an expanding segment.

Due to GoPro's recent inception as a public company there is little historical data to evaluate the long-term potential, generating a lot of uncertainty about the future performance of GoPro's stock. The recent 45 percent drop in share value could prove advantageous for the investor looking to capture GoPro stock at an undervalued state, should the company perform as optimistic analysts assume to be true (Noonan). In reality, the optimistic view of this stock's future is likely due to an investor bias directly related to the social aspect of the business, as GoPro currently dominates media attention to this category. However, with the U.S. economy's current climb from of a lower economic state a trend to a value driven market will likely open the door to more affordable options created by larger firms who take advantage of their economies of scale and mitigated risk through their diverse offerings. A greater percentage of analysts see GoPro as an investment with a slowed trajectory over the next five years (illustrated further within the fundamental analysis section).

GoPro's lack of diversification creates a less stable foundation to enable resiliency in the market place. Companies such as Google or Apple lean heavily on the creation of new products, but retain a variety of other offerings to supplement the extreme camera market segment (Taulli). Additionally, GoPro's current abnormally high over-valuation stretches the company to provide innovation to their existing product line. Recent pursuits by GoPro revolve primarily around a media platform, potentially the reason for the inflated valuation, but many analysts are skeptical-concerned of GoPro's pursuit in an arena with such a high cost of entry (LaFrance). It is impossible to confidently determine what returns these new pursuits will yield, but it is fairly safe to assume that the company will continue to grow in value given GoPro's recent partnerships, sponsorships within extreme sports and its growing presence within sports and the robust overall growth of the industry it resides.

Fundamental Analysis

As discussed in the previous section, GoPro's stock price has varied widely since its initial public offering in June 2014. The following analysis seeks to determine the true value of the stock based on the company's past performance, growth potential, and valuation of risk.

Financial Statement Analysis

Since GoPro has only been publicly traded since 2014, there is a limited amount of financial information available. Annual financial statements for 2011-2013 were obtained from Morningstar and preliminary (unaudited) financial statements for 2014 were obtained from GoPro's investor relations website ("GoPro Announces Fourth Quarter and Full Year 2014 Results", 2015). These financial statements have been consolidated in a spreadsheet, which is presented in Appendix A. See figure 1.4 for a graphical representation of key information from financial statements.

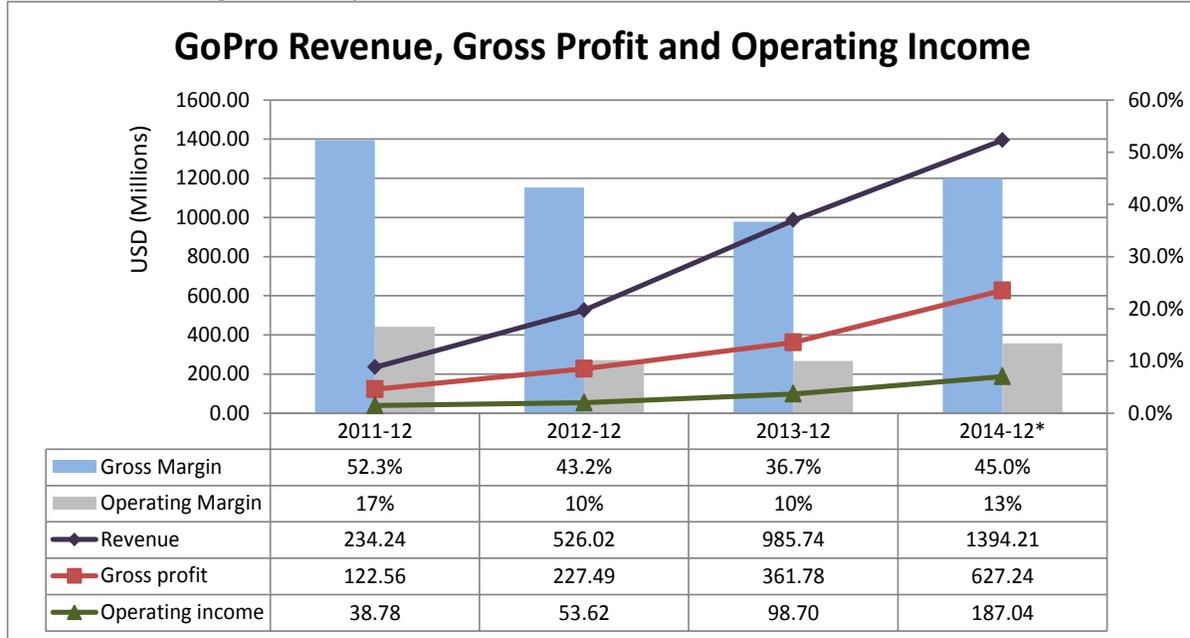
Revenue

From 2011 through 2014 GoPro's revenue has increased from \$234 million to almost \$1.4 billion. This revenue increase represents an average 81 percent year over year growth (calculated using the geometric mean). Growth was highest from 2011 to 2012 at 125 percent, decreasing to 87 percent from 2012 to 2013 and 41 percent from 2013 to 2014. The trend over the last three years suggests that GoPro's revenue growth will continue to slow. The rate of deceleration and the eventual stable growth level will depend largely on actions by competitors and GoPro's own ability to innovate with products that penetrate a wide market.

Cost of Goods Sold/Gross Profit

Cost of goods sold for 2014 has been reported at \$767 million or 55 percent of revenue. This drove a gross profit of \$627 million and a gross profit margin of 45 percent. GoPro's gross profit margin has fluctuated from 52 percent in 2011 all the way down to 37 percent in 2013 before recovering to 45 percent last year. The overall gross profit margin for all sales over this time period is 42.6 percent. In its quarterly report filed with the SEC for the quarter ended in June 2014, GoPro attributes the fluctuation in its gross margin to changes in product cost due to model mix ("GPRO 2014-06-30 10-Q," n.d.). The company suggests that newer products (specifically the Hero 3+) have lower product costs and are driving margins up. The company states that it expects margin to continue to fluctuate quarter over quarter based on product mix and changes in selling price, possibly driven by geographic distribution. The best opportunity for GoPro to drive margin is by continuing their expansion into the media business, which generally has lower cost of goods sold. This move along with deliberate design for manufacturing could drive gross margin toward 50 percent over the next few years and contribute to sustained earnings growth.

Figure 1.4: Key indicators from GoPro's 2011-2014 income statements



Operating Margin

As shown in Figure 1.4, GoPro has increased its operating margin over the past fiscal year. This is due to a number of factors, including the tax rate discussed in detail below. It's possible the company has managed to increase its margin due to economy of scale as it has ramped up production to meet demand, all while it faces relatively little competition in its category. This would allow it to maintain current pricing, something that would not last normally as the industry enters a mature phase.

Tax Rate

GoPro's effective tax rate fell from a high of 39 percent in 2012 to only 29 percent in 2014. According to GoPro's IPO filing this decrease was due to an increase in business in foreign markets where tax rates are lower than in the US (Sullivan, 2014). Continued growth in international markets may further decrease the company's tax rate and for the purposes of analysis it has been assumed that it will not again break 30%.

Research and Development

In 2014 GoPro's Research and Development (R&D) spending was \$152 million or 10.9 percent of revenue. R&D expenditure has shown steady growth as a percent of revenue from 3.7 percent in 2011 to 6.9 percent in 2012 and 7.5 percent in 2013. This increasing commitment to R&D, combined with GoPro's quickly increasing revenues means that there is ample ability for the company to innovate and to explore new products such as camera-equipped drones (unmanned, remote controlled devices). This increased spending on R&D may slightly erode operating margin in the short term, but it is the necessary to enable GoPro to enjoy sustained and significant growth.

Net Income

Net income for 2014 is reported at \$128 million in 2014, which represents a 111 percent increase over 2013's \$61 million. In addition to revenue growth, this increase was driven by an increase in profit margin from 6.1 percent in 2013 to 9.2 percent in 2012. The increase in profit margin was most directly driven by the improvement in gross margin discussed previously, but was aided by the elimination of interest expense and the decrease in the tax rate discussed above.

Ratio Analysis

The following key ratios were selected to gauge the year over year performance of GoPro and compare with competitor performance in an effort to better understand the intrinsic value of the stock. All values were computed with year-end values from the balance sheet for the specified company and fiscal year. Ratios utilizing stock price used the ending market values on 2/13/2015. All competitor financial information was obtained from Morningstar.

Figure 1.5: Year over year and competitor ratio analysis

Ratio	Calculation	GoPro			Competitors		
		2012-12	2013-12	2014-12	Sony 2014-3	JVC 2014-3	Garmin 2013-12
Profitability							
Net Margin	Net Income/Revenue	6.1%	6.1%	9.2%	-1.6%	-1.9%	23.3%
ROE	Net Income/Stockholders' Equity	-40.5%	-1128.9%	20.0%	-5.7%	-10.0%	16.7%
ROA	Net Income/Total Assets	13.1%	13.8%	14.0%	-0.8%	-2.2%	12.5%
Liquidity							
Current Ratio	Current Assets/Current Liabilities	1.5	1.2	3.2	0.9	1.6	2.9
Cash Ratio	Cash+Mkt'ble Securities/Current Liabilities	0.3	0.3	1.6	0.2	0.5	1.0
Market Price Ratios							
Price-earnings Ratio	Price per share/Earnings per share	N/A	N/A	42.3	-15.5	-7.1	17.9
Market-to-book	Price per Share/Book Value per share	N/A	N/A	7.4	1.3	0.8	3.0
Leverage							
Debt-to-equity	Long-term Debt/Total Equity	-1.42	-9.94	0.00	0.4	0.9	0.0
Interest Coverage	Operating Income/Interest Expense	136.8	16.4	N/A	1.1	2.0	N/A
Operating Efficiency							
Inventory Turnover	Cost of Goods Sold/Inventory	4.9	5.6	5.0	7.0	6.6	3.2
Receivables Turnover	Sales Revenue/Receivables	6.6	8.0	7.6	7.4	N/A	4.7
Average Collection Period	Accounts Receivable*365/Revenue	55.6	45.4	48.2	49.3	N/A	78.4
Average Payment Period	Accounts Payable*365/Cost of Goods Sold	65.7	74.0	60.1	N/A	66.1	43.8

GoPro's financial ratios in Figure 1.5 above show a company with investment grade ROE of 20%, a positive ratio for a new publicly-traded company given the company's lack of debt. The company's ability to produce overall profitability from its equity and assets is a sign of management strength. Another notable ratio is the very high P/E ratio of 42.3 (up to 48.97 on February 25). We believe the market has some investment bias that tends to draw higher valuations due to its social media ties, and indeed, P/E ratios for growing, publicly-traded Internet and social media companies tend to be well above even GoPro's current level.

Focusing first on profitability, it is clear that by having positive net income, GoPro is currently more successful than 2 of the 3 competitors selected for comparison. This is likely because GoPro is a fairly new company with a small range of products that are currently experiencing

growth. GoPro trails Garmin in Net Margin but is more efficient in utilizing both equity and total assets to generate earnings.

The liquidity ratios show that GoPro is in good shape with both current and cash ratios greater than one, a feat that is matched only by Garmin. Comparing the Market Price ratios of Garmin and GoPro shows Garmin to be a 'safer' investment and indicates that investors have higher expectations for growth from GoPro. While both Sony and JVC carry significant debt, neither GoPro nor Garmin carry such a burden. Finally in terms of operating efficiency, GoPro seems to be doing fairly well. They are minimizing their working capital by on average collecting receivables in 48 days while taking 60 days to pay their bills. There appears to be some opportunity for improvement in inventory turnover when compared to JVC and Sony.

Projected Earnings Growth

As discussed in the financial statement analysis section, GoPro has experienced a top-line growth rate of 81 percent over the last 3 years. This growth rate has already begun to slow and analysts are in agreement that it will slow further over the next several years. Key factors affecting GoPro's future growth will be the overall health of the economy and the speed with which competitors capture market share. Analyst estimates for 5 year average growth range from 14.5 percent on Nasdaq.com to 26.3 percent on finance.yahoo.com. Since the near-term growth rate will have such a large impact on the value of the company, analysis has been performed on both extremes of the range of expected growth. It will be assumed that after the next 5 years growth will slow to match the average growth in the consumer electronics industry, which is approximately 8 percent. The assumption will also be made that GoPro will be able to maintain its current profit margin and therefore grow earnings and cash flow at the same rate as revenue.

Determination of appropriate interest rate

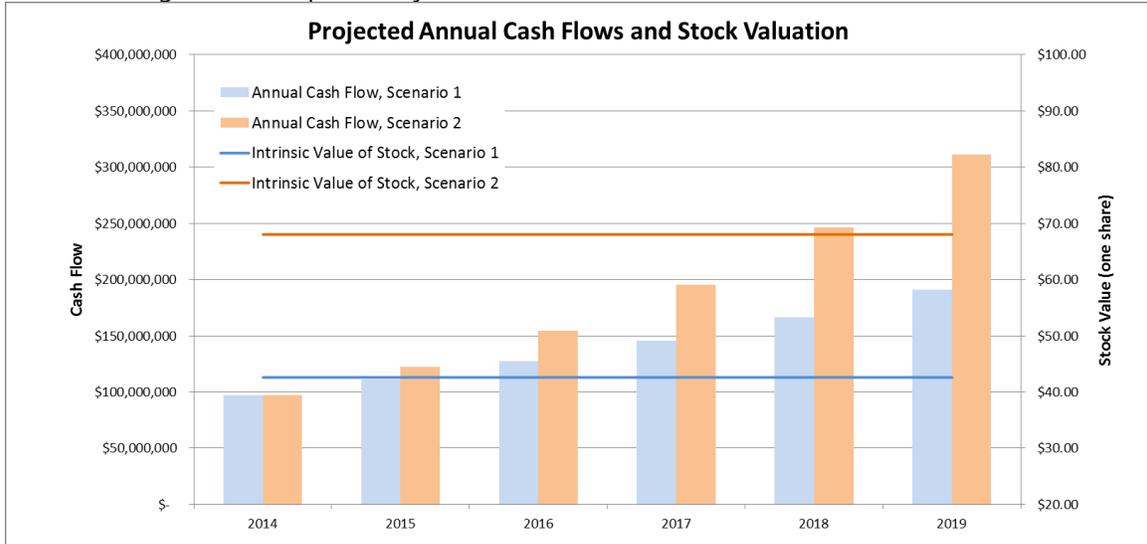
In order to perform a valuation of GoPro's stock it is necessary to first establish an appropriate discount rate to use for the analysis. This is also referred to as the required rate of return and can be calculated using the capital asset pricing model. The inputs to the capital asset pricing model are the risk-free rate, the stock's beta, and the expected market return. In this case the risk-free rate can be set to the long-term average return on 3 month treasury bills, which is 4.58 percent ("3 Month Treasury Bill Rate," n.d.). GoPro's beta is 0.66 as discussed in the stock performance section. The expected market return of the NASDAQ is 14.47 percent based on the average annual return from 1975 to 2014 calculated in Appendix B. Using these values in the CAPM formula results in a required rate of return of 11.11 percent, see Appendix C for the calculation.

Valuation of GoPro

Since GoPro does not pay dividends and does not expect to in the near future, the cash flow valuation model must be used rather than a dividend discount model. As discussed previously, two scenarios with different growth rates will be analyzed. Scenario 1 represents 14.5% annual growth for the next five years and Scenario 2 26.3% five-year growth. See Figure 1.3 below for a graphical representation of the projected cash flows and intrinsic value of the stock in each scenario. The calculation can be found in Appendix D. Note that for CF₂₀₁₄ only the cash flow from operating activities was used since GoPro's IPO generated cash flow from financing activities that would not be expected to repeat in subsequent years. This cash flow analysis of

GoPro's stock value suggests that the current price of \$45.27 is at the low end of the range of intrinsic value, which is \$42.53 to \$68.00. Those who are very optimistic about GoPro's growth prospects would be likely to be willing to purchase stock up to prices of \$68.00 a share.

Figure 1.6: Graph of Projected Cash Flow and Intrinsic Value of GoPro Stock



Technical Analysis

In this section GPRO security is analyzed from a technical standpoint. The main purpose of the technical analysis is to study statistics generated by market activity and historical performance in order to find indicators of GPRO's future performance. To this end, the simple moving average and the relative strength index (RSI) technical indicators are used. The simple moving average is a trending indicator that eliminates the volatility of daily price movement. This produces a smoother trendline. The relative strength index, or RSI, is an oscillating indicator that operates within a range-bound area between 0 and 100. Either indicator is based on past data from GPRO stock.

Figure 1.7 represents GPRO share price, volume and 50-day moving average since the beginning of its public offering.

Figure 1.7 Share Price and 50-day Moving Average for GPRO



Since its IPO, and continuing through October, the stock's price trend was consistently high with volume backup (column chart at the bottom of Figure 1.7). Starting in October, GPRO stock's price trend began to bounce up and down, testing all the demand and supply available for the stock in the market. By mid-November, a breakout on the downside can be observed (black arrow). This broken threshold indicated in fade in demand for GPRO. Consequently, the stock price began to fall and market momentum became negative.

In order to study in detail this trend, a measure of average trading price every 10 (two weeks), 50 (year's quarter) and 100 (half a year) days are plotted together in Figure 1.8. Figure 1.8 also includes the RSI for a 14-day period.

From Figure 1.8 below, it can be observed that after approximately two months after GPRO stock became publicly-traded, it was overbought (time frame where the RSI went above 70%). Thereafter, the stock price bounced up and down until it reached the breakout point. At this point, stock demand started to fall. Note the moving 10-day and 50-day moving average crossed each other during a negative trend. This confirms the market shift toward a negative trajectory. At that moment, it's become the market consensus to recommend a sell or short sell (dashed box on the RSI plot). The 100-day trending average is trending more slowly, but lately the curve can be observed as a downward trend.

Figure 1.8 Share Price, Moving Averages and RSI for GPRO



A trend reversal may be in the near future, and this should be closely monitored. The buy point will be when an indicator for a trend reversal point emerges. At the moment of trend reversal, the market momentum shifts positively, demand increases, and the RSI indicator will start to increase. This will cause the moving average to start trending positively, possibly making the stock an attractive buying opportunity again.

Recommendation

Until more data on the media strategy of this new publicly-traded company is available, and there are more concrete signs on what the similar products will be from competitors such as Apple, Samsung and Google, a **HOLD** is recommended for GoPro, Inc. While the company has shown impressive earnings growth for a relatively new company – its top line growth has been 81 percent over the past three years – its growth is widely projected by industry analyst to slow to anywhere between 14.5 percent (NASDAQ.com) to 26.4 percent (finance.yahoo.com).

This report's fundamental analysis of GoPro's stock shows its current trading price is well within the intrinsic value range. However, the stability of this assumption is in question as it has been calculated in a very robust macroeconomic environment and in a consumer electronics industry offering few competitive products. Also, the stock only recently came down from peaks where it was obviously being traded for its potential, and not for its fundamentals. Recent rattling of its stock price due to competitor moves and management shifts, combined with its business model ambiguity, led to this hold recommendation.

Another factor is the company does not pay dividends, making it imperative that the company continue to experience appreciation in its stock price to deliver the capital gains investors are seeking.

In conclusion, GoPro is a company with distinct product differentiation, selling at a premium that has at its foundation an intriguing strong media brand that drives hardware sales. Whether this can be leveraged to make the company's proclaimed vision to become a media company a reality is in question. However, this plan does offer upside to its stock. There is concern that the management team can deliver upon this plan to ramp up volume in the face of competition from smartphone leaders and entering action camera manufacturers, while maintaining healthy margins. This concern is amplified by the relative inexperience of the CEO/founder Nick Woodman and the fact that COO Nina Richardson resigned this month.

The latter news, announced in early February, came at about the same time as an announcement from Apple regarding a patent for a GoPro-reminiscent video capturing device. This combination of news rattled investors and hit the stock price when it was already down. Until more data on GoPro's response to questions like these is available, we recommend a hold on GoPro.

Appendix A: GoPro Financial Statements

GOPRO INC CLASS A (GPRO) INCOME STATEMENT				
Fiscal year ends in December. USD in millions except per share data.				
	2011-12	2012-12	2013-12	2014-12*
Revenue	234.24	526.02	985.74	1394.21
Cost of revenue	111.68	298.53	623.95	766.97
Gross profit	122.56	227.49	361.78	627.24
Operating expenses			0.19	0.21
Research and development	8.64	36.12	73.74	151.85
Sales, General and administrative	75.13	137.75	189.34	288.35
Total operating expenses	83.78	173.87	263.08	440.20
Operating income	38.78	53.62	98.70	187.04
Interest Expense	0.03	0.39	6.02	0.00
Other income (expense)	0.04	-0.02	-1.35	-6.06
Income before taxes	38.79	53.21	91.33	180.98
Provision for income taxes	14.18	20.95	30.75	52.89
Net income from continuing operations	24.61	32.26	60.58	128.09
Net income	24.61	32.26	60.58	128.09
Preferred dividend	5.82	26.93	16.73	16.51
Net income available to common shareholders	18.80	5.34	43.85	111.58
	11%	6%	6.1%	9.2%
Earnings per share				
Basic				1.07
Diluted				0.92
GOPRO INC CLASS A (GPRO) statement of Cash Flows				
Fiscal year ends in December. USD in millions except per share data.				
	2013-12	2014-12*		
Operating Activities				
Net Income	60.58	128.09		
Adjustments to reconcile net income to cash				
Depreciation and Ammortization	12.03	17.95		
Deferred taxes	(8.13)	(16.92)		
Excess Tax Benefit from Stock-based compensation	(0.32)	(77.13)		
Stock-based Compensation	10.89	71.40		
Provision for doubtful accounts and inventory obsolescence	4.75	5.05		
Other Adjustments	1.22	1.87		
Changes in assets and liabilities:				
Accounts receivable	(43.12)	(62.29)		
Inventories	(55.66)	(45.11)		
Prepaid expenses and other assets	(15.36)	(30.32)		
Accounts payable and accrued liabilities	135.20	98.35		
Deferred revenue	0.40	6.00		
Net Cash Provided by Operating Activities	102.48	96.92		
Investing Activities				
Purchases of Property and Equipment	(18.33)	(27.50)		
Purchases of marketable securities, net of maturities		(102.74)		
Proceeds from sale of property and equipment		0.29		
Net cash used in acquisitions	(2.91)	(3.95)		
Net Cash used in investing activities	(21.24)	(133.90)		
Financing Activities				
Net proceeds from issuance of common stock	0.53	301.58		
Payment of debt issuance cost and deferred public offering costs	(1.17)	(5.73)		
Repayments of debt, net of issuances	(16.00)	(114.00)		
Excess tax benefit from stock-based compensation	0.32	77.13		
Other financing activities		(3.48)		
Net cash provided by (used in) financing activities	(16.32)	255.50		
Net Increase (decrease) in cash	64.93	218.52		
Cash and cash equivalents:				
Beginning of period		36.49	101.41	
End of period		101.41	319.93	

GOPRO INC CLASS A (GPRO) BALANCE SHEET			
Fiscal year ends in December. USD in millions except per share data.			
	2012-12	2013-12	2014-12*
Assets			
Current assets			
Cash and cash equivalents	36.485	101.41	319.929
Total cash	36.485	101.41	319.929
Marketable securities	0	0	102.327
Receivables	80.197	122.669	183.992
Inventories	60.412	111.994	153.026
Prepaid expenses	21.724	21.967	63.769
Total current assets	198.818	358.04	823.043
Non-current assets	0	0	0
Net property, plant and equipment	22.44	32.111	41.556
Intangible assets and Goodwill	8.449	17.365	17.032
Other long-term assets	16.958	32.155	36.06
Total non-current assets	47.847	81.631	94.648
Total assets	246.665	439.671	917.691
Liabilities and stockholders' equity	0	0	0
Liabilities	0	0	0
Current liabilities	0	0	0
Short-term debt	15.782	60.297	0
Accounts payable	53.746	126.423	126.24
Taxes payable	6.139	27.468	16.754
Accrued liabilities	43.047	73.618	115.775
Deferred revenues	8.752	9.097	0
Other current liabilities	1.734	3.691	0
Total current liabilities	129.2	300.594	258.769
Non-current liabilities	0	0	0
Long-term debt	113.613	53.315	0
Other long-term liabilities	83.593	91.128	17.718
Total non-current liabilities	197.206	144.443	17.718
Total liabilities	326.406	445.037	276.487
Stockholders' equity			
Common stock	0.008	0.008	641.204
Additional paid-in capital	0.471	14.51	0
Retained earnings	-80.22	-19.884	0
Total stockholders' equity	-79.741	-5.366	641.204
Total liabilities and stockholders' equity	246.665	439.671	917.691

Appendix B: NASDAQ Composite Returns

Retrieved from http://www.1stock1.com/1stock1_140.htm

Year	Beginning Price	Ending Price	Gain or Loss	Percent Gain or Loss
1975	59.82	77.62	17.8	29.76%
1976	77.62	97.88	20.26	26.10%
1977	97.88	105.05	7.17	7.33%
1978	105.05	117.98	12.93	12.31%
1979	117.98	151.14	33.16	28.11%
1980	151.14	202.34	51.2	33.88%
1981	202.34	195.84	-6.5	-3.21%
1982	195.84	232.41	36.57	18.67%
1983	232.41	278.6	46.19	19.87%
1984	278.6	247.35	-31.25	-11.22%
1985	247.35	324.93	77.58	31.36%
1986	324.93	348.83	23.9	7.36%
1987	348.83	330.47	-18.36	-5.26%
1988	330.47	381.38	50.91	15.41%
1989	381.38	454.82	73.44	19.26%
1990	454.82	373.84	-80.98	-17.80%
1991	373.84	586.34	212.5	56.84%
1992	586.34	676.95	90.61	15.45%
1993	676.95	776.8	99.85	14.75%
1994	776.8	751.96	-24.84	-3.20%
1995	751.96	1052.13	300.17	39.92%
1996	1052.13	1291.03	238.9	22.71%
1997	1291.03	1570.35	279.32	21.64%
1998	1570.35	2192.69	622.34	39.63%
1999	2192.69	4069.31	1876.62	85.59%
2000	4069.31	2470.52	-1598.79	-39.29%
2001	2470.52	1950.4	-520.12	-21.05%
2002	1950.4	1335.51	-614.89	-31.53%
2003	1335.51	2003.37	667.86	50.01%
2004	2003.37	2175.44	172.07	8.59%
2005	2175.44	2205.32	29.88	1.37%
2006	2205.32	2415.29	209.97	9.52%
2007	2415.29	2652.28	236.99	9.81%
2008	2652.28	1577.03	-1075.25	-40.54%
2009	1577.03	2269.15	692.12	43.89%
2010	2269.15	2652.87	383.72	16.91%
2011	2652.87	2605.15	-47.72	-1.80%
2012	2605.15	3019.51	414.36	15.91%
2013	3019.51	4176.59	1157.08	38.32%
2014	4176.59	4736.05	559.46	13.40%
Arithmetic Average Return:				14.47%

Appendix C: Required Rate of Return

$$E(R_i) = R_f + \beta_i(E(R_m) - R_f)$$

$$\begin{aligned} R_f &= 4.58 \\ E(R_m) &= 14.47 \\ \beta_i &= 0.66 \end{aligned}$$

$$E(R_i) = 4.58 + 0.66*(14.47 - 4.58) = 11.11$$

Appendix D: Cash Flow Analysis

$$P_0 = \frac{EV}{\# \text{ of shares}} = \frac{\sum_{t=1}^n \frac{CF_t}{(1+k)^t} - \text{Market Value of Debt}}{\# \text{ of shares}}$$

k =	11.11%
g ₂ =	8.00%
Debt =	\$0
# of Shares =	104,453,000

	g ₁	CF ₂₀₁₄	CF ₂₀₁₅	CF ₂₀₁₆	CF ₂₀₁₇	CF ₂₀₁₈	CF ₂₀₁₉	CF _{Term}	EV	P ₀
Formula:			CF ₂₀₁₄ *(1+g ₁)	CF ₂₀₁₅ *(1+g ₁)	CF ₂₀₁₆ *(1+g ₁)	CF ₂₀₁₇ *(1+g ₁)	CF ₂₀₁₈ *(1+g ₁)	(CF ₂₀₁₉ *(1+g ₁))/(k-g ₂)	Σ CF _t /(1+k) ^t - Debt	EV/# of Shares
Scenario 1:	14.5%	\$96,922,000	\$110,975,690	\$127,067,165	\$145,491,904	\$166,588,230	\$190,743,523	\$6,623,890,845	\$4,442,349,925	\$42.53
Scenario 2:	26.3%	\$96,922,000	\$122,383,409	\$154,533,531	\$195,129,490	\$246,390,007	\$311,116,661	\$10,804,051,261	\$7,102,961,135	\$68.00
t:		0	1	2	3	4	5	5		
(1+k) ^t			1.11	1.23	1.37	1.52	1.69	1.69		

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