THE GEORGE WASHINGTON UNIVERSITY

CROCS, INC. Case Study Report

[1]

SUBMITTED TO

PROF. NEIL COHEN
School of Business and Public Management
The George Washington University

BY

Anil Kumar Cheerla

FINA 6224
FINANCIAL MANAGEMENT

WASHINGTON, DC
January 26, 2011

Q1: Consider which comparable peers are good matches and use them to perform a multiples analysis, calculating and defending an estimate of Crocs value.

Soln: Comparable companies analysis – Done to determine appropriate valuation multiple for Crocs, Inc.

- Selected peer group based on industry, business and financial characteristics
- Included explosive growth stocks such as Lulelemon & Under Armour having similar prospects for growth and ROIC as Crocs, Inc. and some mature, stabilized businesses with stable industry growth rates – Nike, Deckers & Timberland. This mix will help us provide valuation from an aggressive sales growth and maturing sales context.
- Some characteristics used in selection include –
    - Primary or at least significant portion of business revenue comes from footwear & apparel – analogous to Crocs primary business
    - Has product appeal to large group of customers
    - Has distinct product attributes (innovative/creative) and differentiation from competition
    - Has wide range of distribution channels
    - CAGR Sales growth, COGS to Sales & Significantly less debt exposure on their balance sheets
    - Have characteristics of high octane growth and show signs of maturity and stabilizing long-term growth similar to well established footwear brands.

Valuation Multiples

The objective was to compare operating metrics and valuation multiples in a peer group to that of Crocs, Inc. for equity valuation. The market multiple model is based on the idea that on average, a company, over time would have roughly the same value as its peers.

Assumption: The companies chosen as comparables, Deckers, Nike, Timberland, Lululemon & Under Armour reflect similar characteristics as Crocs, Inc in terms of industry, operations and financial returns.

The four multiples used were price/earnings, price/sales, price/EBITDA & price/BV of equity. Using the valuation and operating data provided, the following multiples were calculated:

Multiples for Comparable Firms	Deckers	Nike	Timberland	Lululemon	Under Armour	Average
Price /Earnings	30.9	19.97	20.94	129.78	61.09	52.536
Price /Sales	4.543175	1.873029	0.92018201	15.2005649	5.167156863	5.54082155
Price/EBITDA	20.191889	12.99994	10.4075759	66.9358211	32.26836735	28.5607188
MV Equity/BV Equity	1	1.013526	1.03515454	1	1.003218042	1.01037964

Fig1. Multiples Valuation for peer firms

Although I contested the selection of Lululemon and Under Armour as comparables, I still retained them in order to use their high octane growth as a yardstick to shed light on Crocs valuation. The business models followed are completely different, but both have become a fad hit with consumers and display traits similar to Crocs, Inc.

The valuations for the target firm, Crocs were calculated based on the income statement and balance sheet provided as exhibits. All the numbers are representative of Crocs 2007 financial statements. The calculated target value and the equity valuations are listed below:

	Target Firm Parameters	Target Firm Value	# of Shares(millions)	Value per Share
Value based on Earnings	168	8826.048	85	$103.84
Value based on Sales	830	4598.881889	85	$54.10
Value based on EBITDA	258	7368.665454	85	$86.69
Value based on Book Value	444	448.6085585	85	$5.28
Average Value per share				$62.48

Fig2. Target Firm Valuation

As observed from the table above, Crocs has shown a wide range of equity valuation from a low $5.28 based on book value to the high $103.84 based on earnings. The high valuation can be traced to the explosive sales growth experienced in previous years and in anticipation of that continued triple digit growth. But going back to what appears as fair value, the company is valued way less at $5.28 which is at a discount of 800% over the prevailing market price of $65 (from the case briefing).

Year	2003	%Change	2004	%Change	2005	%Change	2006	%Change	2007 (est.)
Revenues (Sales)	$1,165.00	1061%	13,520.00	703%	108,581.00	227%	354,728.00	139%	$847,350.00
Gross profit	$274.00	2220.44%	6,358.00	856.40%	60,808.00	229.84%	200,570.00	148.12%	$497,649.00

Fig3. Sales & Gross Profit growth

As evident from the numbers above, all creditors, investors and other providers of capital will benefit enormously if the expected growth is achieved, but that puts them to a greater risk. The actual market value of equity provides clues that the stock is selling above its intrinsic (real) value. The average equity value of %62.48 is almost close to the current traded market value of $65. This valuation exercise provides us an insight into what should be the value of Crocs in comparison to its peers, but can be misleading because of sensitivity to accounting choices and alternatives. In addition we're not exactly comparing 'apples to apples' since the firms range from small cap to big cap. Also past performance is not always reflective of future performance, so any change in the dynamics will throw off out valuation. The impact of other influential factors such as dividend payout, growth, discount rate and beta are not considered. The question, Will Crocs maintain such explosive sustainable growth in the future is subject to high uncertainty and tremendous risk?

Q2: Use the FCF Valuation Template below to modify the analysis in the case, Ex. 6 (incorrectly labeled Ex. 5), calculating and defending an estimate of Crocs value.

Soln: The preferred method to determine a company's going-concern value by adjusting for risk and time. Simply put, the value of equity = value of firm – value of debt. So to find the intrinsic or fair values of Crocs, the forecast numbers from exhibit 6 were plugged into the provided template and appropriate entries from the balance sheet and income statement were entered.

Assumptions: The depreciation and amortization amounts, capital expenditures were pulled directly from exhibit 6 assuming them to be incremental. Other assumptions include the discount rate at 10.96%, the long-term growth at 6%, and market value of debt as zero and no redundant assets. The firm will have perpetual growth after 4 years at a rate of 6%.

The free cash flows along with terminal value calculated are listed below:

PERIOD	0	1	2	3	4	5
YEAR	2007	2008	2009	2010	2011	2012
EBIT after tax (EBIAT)		$249.20	$359.80	$448.70	$518.70	$549.50
+ Depreciation		$21.00	$31.00	$42.00	$51.00	$53.55
=Cash Flow from Operations (CFFO)		$270.20	$390.80	$490.70	$569.70	$603.05
+/- Change in Net Working Capital		$72.00	$119.00	$146.00	$115.00	$41.00
+/- Capital Expenditures		$55.00	$63.00	$73.00	$58.00	$20.00
=Free Cash Flow (FCF)		$143.20	$208.80	$271.70	$396.70	$542.05
+Terminal Value (TV)						$11,584.13
=Sum of FCF + TV		$143.20	$208.80	$271.70	$396.70	$12,126.18

Fig4. Free cash flows

The terminal value is calculated as a perpetuity from 2012 and beyond = FCF * (1+g)/Kw – g . The resulting terminal value is then added to the free cash flows calculated for the first four years of forecast. This sum is the enterprise value of Crocs, Inc. The total FCF's are then discounted and any debt outstanding is deducted. Since Crocs has negligible debt, the PV represents the equity valuation.

Equity Valuation	
Present Value (Total FCF w/TV)	$7,968.50
- Market Value of Debt	$0.00
= Valuation of Equity	$7,968.50
+Redundant assets	$0.00
=Adjusted Value of Equity	$7,968.50
/ Number of Shares	$85.00
Value of Equity per Share	$93.75

Fig5. Equity Valuation

The resulting value is $93.75 which is above the current market value of $65. So through the discounted free cash flow valuation, Crocs, Inc. as of August 2007 is undervalued compared to its intrinsic value.

Q3. Create a copy of this tab, with your completed work, for Q3. Be careful! Don't delete your work - save the file first. Rename the new tab 'Q3', and perform a sensitivity analysis using profit margin as the key driver. Revisit your previous valuation result and decide what changes are necessary, if any. Write your sensitivity analysis explanation below the analysis on the Q3 tab.

Soln: The sensitivity analysis was conducted using profit margin as the driver. Crocs, Inc has been a tremendous growth story with growing multiples of sales revenue and gross profits. The years from 2003 to 2006 saw huge investments in fixed assets and SG & A expenses as sales was being ramped. In order to meet the growing demand, Crocs invested heavily in new manufacturing facilities, opened up new stores, expanded operations globally, acquired other complimentary companies, hired more labor and sales personnel. As long as the continued demand exists and there is new demand for Crocs products from new market segments, both globally and domestic, Crocs stood to sustain the growth momentum. But the rising capacity and inventory numbers with sluggish or declining sales really put to risk the ability of Crocs to execute their long-term growth strategy.

Assumption: Profit margin is assumed to be gross profit margins (sales – COGS).

Profit margin can be affected by two factors, sales revenue and COGS. To test the sensitivity of Crocs business value given changes to sales revenue or COGS, I tried three different scenarios. In the first scenario, I assumed the sales revenue was declining, the second case where COGS was rising and the third one where both the Sales and COGS started declining. The resulting effect on the equity valuation is evident from the tables listed below for the three scenarios.

Scenario1: Rising COGS

Case1: Rising COGS in relation to steady sales growth expectations							
Cash Flow Forecast			Forecast Period				
	2006	2007	2008	2009	2010	2011	Steady
Revenues	355	830	1,370	2,058	2,788	3,367	3,569
Cost of sales	154	342	753	1,194	1,673	2,020	2,141
Gross profit	201	488	616	864	1,115	1,347	1,428
Selling, general, and administrative	105	251	425	659	920	1,111	1,178
Income (loss) from operations	95	237	192	206	195	236	250
NOPAT (tax at 30%)			134	144	137	165	175
Ch NWC			72	118	146	116	40
Ch NPPE			55	63	73	58	20
Free cash flows			6	(38)	(83)	(9)	114
			Assumptions				
Growth %	227%	134%	65.0%	50.3%	35.5%	20.8%	6.0%
COGS/Sales %	43.5%	41.2%	55.0%	58.0%	60.0%	60.0%	60.0%

Fig6. Scenario1 - Equity Valuation

Impact on Valuation

Valuation	
Terminal value (TV)	$2,304.02
Present value (PV) of TV	$1,519.92
PV planning	-$90.92
Enterprise value	$1,429.00
Shares outstanding	$85.00
Price per share	**$16.81**

Fig7. Secnario1- Impact

Scenario2: Declining Sales Revenue

Cash Flow Forecast			Forecast Period				
	2006	2007	2008	2009	2010	2011	Steady
Revenues	355	830	1,079	1,295	1,489	1,713	1,815
Cost of sales	154	342	464	557	655	771	817
Gross profit	201	488	615	738	834	942	998
Selling, general, and administrative	105	251	335	414	491	565	599
Income (loss) from operations	95	237	281	324	343	377	399
NOPAT (tax at 30%)			196	227	240	264	280
Ch NWC			10	28	39	45	21
Ch NPPE			25	17	19	22	10
Free cash flows			161	181	181	197	249
			Assumptions				
Growth %	227%	134%	30.0%	20.0%	15.0%	15.0%	6.0%

Fig8. Scenario2 - Equity Valuation

Impact on Valuation

Valuation	
Terminal value (TV)	$5,014.82
Present value (PV) of TV	$3,308.18
PV planning	$555.01
Enterprise value	$3,863.19
Shares outstanding	$85.00
Price per share	**$45.45**

Fig9. Scenario2 - Impact

Scenario3: Declining Sales & Rising COGS

Cash Flow Forecast			Forecast Period				
	2006	2007	2008	2009	2010	2011	Steady
Revenues	355	830	1,079	1,241	1,489	1,787	1,894
Cost of sales	154	342	464	571	745	858	852
Gross profit	201	488	615	670	745	929	1,042
Selling, general, and administrative	105	251	335	397	491	590	625
Income (loss) from operations	95	237	281	273	253	340	417
NOPAT (tax at 30%)			196	191	177	238	292
Ch NWC			10	17	50	60	21
Ch NPPE			25	12	25	30	11
Free cash flows			161	162	103	148	260
			Assumptions				
Growth %	227%	134%	30.0%	15.0%	20.0%	20.0%	6.0%
COGS/Sales %	43.5%	41.2%	43.0%	46.0%	50.0%	48.0%	45.0%

Fig10. Scenario3 - Equity Valuation

Impact on Valuation

Valuation	
Terminal value (TV)	$5,232.85
Present value (PV) of TV	$3,452.02
PV planning	$449.76
Enterprise value	$3,901.78
Shares outstanding	$85.00
Price per share	**$45.90**

Fig11. Scenario3 - Impact

So based on the sensitivity analysis, we can conclude that Crocs valuation is greatly impacted by sales revenue i.e. Growth and how efficiently it can control costs (fixed costs). The three scenarios have demonstrated how declining sales and rising COGS can put a company to both operating and financial risk. The analysis has clearly shown the immense dependence of Crocs to maintain their projected triple digit growth forecasts in order to sustain the current equity valuation. Any change in these numbers vastly affects the free cash flows including the terminal value and how that can affect the overall equity valuation for Crocs. Risk and Uncertainty to meet growth objectives, coupled with spiraling operating costs are factors to be strictly monitored at Crocs.

Q4. As Stacy Yeung, use the analysis you did to cite your valuation opinion and course of action, outlining the justification.

Soln:

Crocs stock was punished for not meeting the earning expectations of investors. This was attributed to macro-economic factors - slowing consumer spending because of looming economic downturn and financial performance factors such as declining demand for mature products and slow penetration of new product line sales. I’ve not used any operating metrics for analysis since the case addresses the issue of growth and equity valuation.

Based on the two different valuations – Market Multiples and Discounted FCF methods and the sensitivity analysis, as Stacy I will be hesitant to rely on strong growth forecasts demonstrated by past data. The valuation of equity is does not thoroughly address the nine elements of the valuation process, that being –

- Future outlook of the business
- Financial leverage
- Future earning capacity
- Dividend payment policy &
- Goodwill – may completely dissipate if investors shy away from the stock

Some observations from the case worth valuable in making this decision-

In 2006 and 2007, Crocs saw
- exponential expansion - new acquisitions and organic growth
- increased production capacity
- introduced 250 models vs. 25 (2003)
- diversified into new apparel and other footwear accessory businesses
- Hired new labor to support anticipated production demand
- increased capital investments in manufacturing facilities

Potential Risks -
- If the economy takes a downturn, then Crocs will have
- working capital deficit due to declining sales, low receivables and high payables (debt obligations - short-term)
- inability to raise short-term capital when economy is under severe downturn pressure
- Crocs may meet its own demise after the 'fashion fad' takes over.
- heavy outsourced contracting work globally
- threat of new competition
- over capacity and rising operating costs
- Inability to control costs because of huge concentration in fixed costs

Positives -
- unique differentiated product line with patents
- diversified customer base - still popular and immensely attractive towards kids, youth & young men and women
- zero debt
- global growth prospects - but not at a level of past performance domestically (no triple digit growth numbers)

The sensitivity analysis has revealed Crocs susceptibility towards slight variation in sales or COGS. Rising COGS are expected because of the infrastructure investments done by Crocs in anticipation of increased demand for their products. Since manufacturing involves fixed asset investment and direct labor, direct material and overhead costs cannot be controlled that significantly, I expect restructuring to happen if costs have be reduced. The SG & A expenses being variable can easily be controlled should any decline in sales happen for the projected years. Sales revenue is a different beast since it is the sum total of numerous factors - macro-economic, operating and financial performance all weaved together. Crocs is in a unique situation, having experienced explosive growth it is now at crossroads of declining demand (sales), rising costs and uncertain of executing the long-term business strategy.

Valuation	Price per Share
Stacey Yeung	$84.17
FCF Valuation (Modified)	$93.75
Market multiples	$62.48
Sensitivity Analysis (COGS rising)	$16.81
Sensitivity Analysis (Sales declining)	$45.45
Sensitivity Analysis (COGS rising & Sales Declining)	$45.90

Fig. 12 Equity valuations arrived at by analysis

Excepting the FCF valuation, all the other suggest that Crocs is overvalued. All suppliers of funds – predominantly equity holders had enjoyed great returns, but with uncertainty surrounding growth and economy, **I suggest that the stock is overvalued** and would hold off any investments until earnings improve. To garner better valuation, I would suggest the management take a look at

- Restructure its capital structure
- Focus on core business – footwear and divest off the apparel and other businesses
- Improve operating profits – maybe cut down on new retail sales expansion, reduce overseas manufacturing investments, re-negotiate outsourced contracts with other manufacturers
- Respond to competition with new, appealing products and not become a victim of 'fad' run out.
- Increase global sales, especially in Asia and Africa.
- Reduce inventory build up

Though the near-term prospects remain bleak, Crocs can re-establish itself as a unique footwear company and not fade off as a 'fad'.