International Research Journal of Applied Finance ISSN 2229 – 6891
Vol. VIII Issue – 10 October, 2017 www.irjaf.com
Case Study Series

Using Financial Ratio Analysis to Evaluate the Relative Valuations of Close Competitors

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Abstract

Lowe's and Home Depot are close competitors in the North American retail home improvement market. The business models of the two firms are very similar and they operate a similar number of stores with a similar amount of total square footage of retail selling space. Despite these similarities, Home Depot and Lowe's had market capitalizations of about $176 billion and $70 billion, respectively, as of April 5th, 2017, the date that this case takes place on. This case provides students with five years of financial statement and market data for both firms and challenges them to perform a complete financial ratio analysis that will help them to develop an explanation for the difference in the valuation of the two companies.

Keywords: ratio analysis, valuation multiples, Lowe's, Home Depot

"Thank you for coming in on such short notice," said Bronx Asset Management managing director Russ Leffingwell. "There is no doubt in my mind that the four of you make up our top team of junior associates, and I think that I've come across an assignment that is worthy of your talents. Some of you might know Roy Cohen. Roy co-manages our Falconer Opportunity Fund with Raj Kapoor. Roy is known as a 'big picture guy', and right now he is very bullish on housing. He believes that there is a great deal of pent-up demand for single family homes in the U.S. due to the millennials starting to reach the age that they are ready to settle down and raise a family. Roy thinks that the best way to play this theme is through the home improvement retailers. As you probably know, the two biggest players in the space are Home Depot and Lowe's. Both names have run up quite a bit, but Home Depot has really left Lowe's in the dust in terms of market capitalization. Roy is leaning toward putting on a big position in Home Depot, but before we go forward I would like to gain a better understanding of why Home Depot's valuation is so much higher than Lowe's despite the fact that they have such similar business models and a similar footprint in terms of stores. If Lowe's operating performance has lagged Home Depot's, and that is the source of the valuation gap, and if Lowe's poor performance is correctable, then maybe the smart bet is on Lowe's. We have a meeting of the investment committee tomorrow morning at 10 a.m., and this idea is at the top of the agenda. I would like for this group to make a presentation for the committee. What I want you to do is to explain to the committee why it is that Home Depot's valuation is so much higher than Lowe's. Is the gap due to differences in the operating performance or financial condition of the two companies? If so, do these differences exist for structural reasons, or is it a case of superior management at Home Depot? I have found that there is often an opportunity to make money on a mean reversion trade in these types of situations, especially if there is an opening for an activist investor to get involved. Any questions?"

"No questions Russ, I'd just like to say that it's a real honor for you to refer to us as the firm's top team of junior associates, and I know that we will come through for you again," said Richard "Rich" Whitney IV, a recent graduate with a degree in government from a prestigious eastern university.

"Actually, I wasn't counting the teams working in the private equity side of the business, said Russ. But you are the best that I have in public equities right now, and unfortunately, I won't be around to pitch in because I have a big meeting uptown tonight with an important prospect. But if you do need support, my assistant Jane will be on call as always."

"Well, I guess that I won't be needing these Knicks tickets," said Rich. It was just after 2:00 p.m. on Wednesday, April 5th, 2017, as the four young associates sat in the spacious conference room and pondered the task in front of them. In addition to Rich, the team included Marisol Pinochet, a former management consultant already taking MBA courses in the evening, Lu Li, a chemical engineering major and avid stock market investor, and Lou Melfi, a geography major who had recently served in the Peace Corps. "Maybe you could trade those Knicks tickets for a finance degree and a couple of pizzas, said Lou. It's going to be a long night. At least we have Marisol and Lu. What is our plan of action?"

"Before we rush off on our journey, let's define our destination, said Marisol. We are going to need to examine the financial performance of both Lowe's and Home Depot over the last few years. It's always good to have as much data as possible, but given our time constraints I think that five years will be sufficient. We are going to need to perform a complete financial ratio analysis, looking at liquidity, asset efficiency, debt, and profitability."

"That is a very clever proverb about the journey and the destination Marisol, said Lu. I agree with you on the need for a ratio analysis, but you left out market value ratios such as the price-to-earnings and price-to-book ratios. After all, it is the difference in valuation that we are trying to explain."

"Wouldn't it also be helpful to gather some data on various non-financial metrics, asked Lou. I seem to remember Russ mentioning something about business models and the store footprint."

"Good point, said Marisol. Lu and I will pull the Excel data from Lowe's and Home Depot's 2016 10-Ks and whip it into shape, said Marisol. Lou, how about if you focus on the non-financial metrics that you mentioned and on trying to get a better feel for the firm's business models? We'll then meet back here at 6:00 p.m."

"Will do," said Lou.

"And I'll handle the pizza, said Rich. There is this great new place called Ray's that just opened up a block away from my building. It's crazy on Wednesday nights but I know a guy who can get our order in."

I. The Data

The data collected by the team is summarized in table's I, II, and III below. Table I presents a combination of operating and financial data that Lou thought would help the team to compare the two companies. Tables II and III present six years of financial data for Lowe's and Home Depot, respectively, collected by Marisol and Lu. In addition to consolidated income statements and balance sheets obtained from the firm's 10-Ks filings available on the SEC's Edgar website, the market capitalizations of each company at the end of each of the last six years are presented.

Refer Table I, II, and III

II. The Meeting
The team reconvened in the conference room at 6:25 p.m. and examined the data while sampling the pizza brought in by Rich.

"Wow, what's on this thing, asked Marisol?"

"Marinated kale, smoked pancetta, and Aleppo chili oil, said Rich. Best pizza in the city. I'm really relieved that I seem to have finally measured up to Marisol's high standard of performance."

"I think that everyone is equally relieved, said Lu. Now let's talk about how we can move forward. Lou, would you like to start by briefing us on the data that you've collected?"

"I'd be glad to, said Lou. It is clear from briefly reviewing part I of each company's 2016 10-Ks that Home Depot and Lowe's are the top two competitors in the North American retail home improvement market. Neither company derives a material amount of revenue from activities unrelated to that market. As you can see from the table that I have provided you with (Table I), Home Depot had a total of 2,278 stores as of the end of fiscal 2016, while Lowe's had 2,129. While the 112,000 average square footage of a Lowe's branded store is comparable to the 104,000 average square footage of a Home Depot branded store, Lowe's store estate includes 87 Orchard Hardware Stores on the U.S. west coast that average only about 36,000 square feet and 245 recently acquired RONA stores in Canada that vary in format. As you can also see from the table, Home Depot has about 237 million total square feet of retail selling space, compared to about 213 million for Lowe's. A breakdown of the locations of Home Depot stores by U.S. state and by country can be found on page 13 of Home Depot's 2016 10-Ks, while a similar chart for Lowe's can be found on Lowe's investor relations website."

"But despite all these apparent similarities, according to the table Home Depot has a market capitalization over twice as high as Lowe's, said Lu."

"That's correct," said Marisol. Our financial figures (Tables II and III) also show that Home Depot's net earnings were more than twice as high as Lowe's in fiscal 2016. It seems clear to me that we are going to need to go ahead with that comprehensive financial ratio analysis that we discussed earlier in order to sort this out. If no one objects, allow me to suggest an agenda for completing the analysis that I think will leave us well prepared for our presentation tomorrow.

All of the team members nodded silently in agreement with Marisol's agenda, which is summarized in the case questions that appear below.

III. Case Questions

1. Complete a horizontal analysis (percentage change analysis) for Lowe's and Home Depot for the fiscal years 2012-2016.
2. Complete a vertical analysis (or common size analysis) for Lowe's and Home Depot for the fiscal years 2012-2016.
3. Complete a cross-sectional/time series ratio analysis of Lowe's and Home Depot for the fiscal years 2012-2016. You should include at least the following ratios, but you may include others also if you wish:
Liquidity Ratios: current ratio and quick ratio
Efficiency Ratios: inventory turnover, fixed asset turnover, and total asset turnover
Debt Ratios: debt to equity ratio, interest coverage ratio, financial leverage multiplier
Profitability ratios: gross profit margin, operating profit margin, net profit margin, return on assets, return on equity, effective tax rate
Market ratios: price to earnings ratio, price to book value ratio
4. Evaluate your findings in questions 1-3, and briefly discuss the most notable results. Focus on large and important differences between the two companies and large and important changes through time.
5. Recalculate the price to earnings and price to book value ratios for both firms using the market capitalizations as of April 5th, 2017 provided in Table I. Why do you think that the price to earnings ratios of the two firms are virtually the same, but Home Depot has a much higher price to book value ratio?
Hint: the price to book value ratio can be broken down as follows:
P/B = P/E *E/B = P/E*ROE
Where P denotes market capitalization, E denotes the trailing year's earnings, B denotes the book value of equity and ROE is the return on equity. Note that return on equity must be calculated with end of year equity for the above equation to hold exactly.
6. Break down the ROE for both firms in 2016 using the DuPont Analysis and then compute what Lowe's ROE would be in the following circumstances, holding other things constant:
If Lowe's had the same net profit margin as Home Depot
If Lowe's had the same total asset turnover as Home Depot
If Lowe's had the same financial leverage multiplier as Home Depot
7. Why does Lowe's have a lower net profit margin and total asset turnover than Home Depot? Is there an opportunity for Lowe's to improve its ROE by increasing its net profit margin and/or its total asset turnover? What particular actions could the firm take?
8. Could Lowe's improve its ROE by increasing its financial leverage multiplier? Under what conditions would increased leverage increase ROE? Assuming that increasing the financial leverage multiplier does increase ROE, can you think of any downside to Lowe's increasing leverage?

References

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Table I: Selected Operating and Financial Data for Lowe's and Home Depot

Data from Lowe's and Home Depot 2016 10-K, Moody's, and Yahoo Finance.

	Lowe's	**Home Depot**
Ticker Symbol	LOW	HD
Fiscal Year End	January	January
Closing Stock Price on April 5th, 2017	\$81.82	\$146.64
Shares Outstanding on April 5th, 2017	857,333,000	1,202,918,000
Market Capitalization on April 5th, 2017	\$69,975,513,000	\$176,395,920,000
Debt Rating from Moody's at end of Fiscal 2016	A3	A2
Advertising Expense in Fiscal 2016 (included in SG&A in consolidated income statements)	\$893,000,000	\$789,000,000
Total Stores at End of Fiscal 2016	2,129	2,278
Total Stores in U.S. States and Territories at End of Fiscal 2016	1,820	1,977
Total Stores in Canada at End of Fiscal 2016	299	182
Total Stores in Mexico at End of Fiscal 2016	10	119
Approximate Total Square Feet of Retail Space at End of Fiscal 2016	213,000,000	237,000,000

Table II: Lowe's Companies, Inc., Financial Data - USD (\$) in Millions

(Data from Lowe's 10-Ks and Morningstar)

Fiscal Year	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**
Consolidated Statements of Earnings						
Net sales	\$ 65,017	\$ 59,074	\$ 56,223	\$53,417	\$50,521	\$50,208
Cost of sales	42,553	38,504	36,665	34,941	33,194	32,858
Gross margin	22,464	20,570	19,558	18,476	17,327	17,350
Expenses:						
Selling, general and administrative	15,129	14,105	13,272	12,865	12,244	12,593
Depreciation and amortization	1,489	1,494	1,494	1,462	1,523	1,480
Operating income	5,846	4,971	4,792	4,149	3,560	3,277
Interest - net	645	552	516	476	423	371
Pre-tax earnings	5,201	4,419	4,276	3,673	3,137	2,906
Income tax provision	2,108	1,873	1,578	1,387	1,178	1,067
Net earnings	\$ 3,093	\$ 2,546	\$ 2,698	\$2,286	\$1,959	\$1,839
Basic earnings per common share	\$ 3.48	\$ 2.73	\$ 2.71	\$2.14	\$1.69	\$1.43
Diluted earnings per common share	3.47	2.73	2.71	\$2.14	\$1.69	\$1.43
Cash dividends per share	\$ 1.33	\$ 1.07	\$ 0.87	\$0.70	\$0.62	\$0.53

Consolidated Balance Sheets						
Current assets:						
Cash and cash equivalents	$ 558	$ 405	$466	$391	$541	$1,014
Short-term investments	100	307	125	185	125	286
Merchandise inventory - net	10,458	9,458	8,911	9,127	8,600	8,355
Other current assets	884	391	578	593	518	417
Total current assets	12,000	10,561	10,080	10,296	9,784	10,072
Property, less accumulated depreciation	19,949	19,577	20,034	20,834	21,477	21,970
Long-term investments	366	222	354	279	271	504
Goodwill	1,082	154	0	0	0	0
Other assets	1,011	752	1,359	1,323	1,134	1,013
Total assets	34,408	31,266	31,827	32,732	32,666	33,559
Current liabilities:						
Short-term borrowings	510	43	0	386	0	0
Current maturities of long-term debt	795	1,061	552	49	47	592
Accounts payable	6,651	5,633	5,124	5,008	4,657	4,352
Accrued compensation and employee benefits	790	820	773	785	670	613
Deferred revenue	1,253	1,078	979	892	824	801
Other current liabilities	1,975	1,857	1,920	1,756	1,510	1,533
Total current liabilities	11,974	10,492	9,348	8,876	7,708	7,891
Long-term debt, excluding current maturities	14,394	11,545	10,815	10,086	9,030	7,035
Deferred revenue - extended protection plans	763	729	730	730	715	704
Other liabilities	843	846	966	1187	1356	1396
Total liabilities	27,974	23,612	21,859	20,879	18,809	17,026
Shareholders' equity:						
Preferred stock - $5 par value, none issued	0	0	0	0	0	0
Common stock - $.50 par value	433	455	480	515	555	621
Capital in excess of par value	0	0	0	0	26	14
Retained earnings	6,241	7,593	9,591	11,355	13,224	15,852
Accumulated other comprehensive loss	(240)	(394)	-103	-17	52	46
Total shareholders' equity	6,434	7,654	9,968	11,853	13,857	16,533
Total liabilities and shareholders' equity	$ 34,408	$ 31,266	$31,827	$32,732	$32,666	$33,559
Market capitalization at end of fiscal year	$61,864	$69,585	$66,936	$51,821	$39,949	$31,790

Table III: The Home Depot, Inc., Financial Data - USD ($) in Millions

(Data from Home Depot 10-Ks and Morningstar)

Fiscal Year	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**
Consolidated Income Statements						
NET SALES	$ 94,595	$ 88,519	$ 83,176	$74,754	$70,395	$67,997
Cost of Sales	62,282	58,254	54,787	48,912	46,133	44,693
GROSS PROFIT	32,313	30,265	28,389	25,842	24,262	23,304

Operating Expenses:						
Selling, General and Administrative	17,132	16,801	16,280	16,508	16,028	15,849
Depreciation and Amortization	1,754	1,690	1,640	1,568	1,573	1,616
Total Operating Expenses	18,886	18,491	17,920	18,076	17,601	17,465
OPERATING INCOME	13,427	11,774	10,469	7,766	6,661	5,839
Interest and Other (Income) Expense:						
Interest and Investment Income	(36)	(166)	(337)	-20	-13	-15
Interest Expense	972	919	830	632	606	530
Other	0	0	0	-67	0	51
EARNINGS BEFORE INCOME TAXES	12,491	11,021	9,976	7,221	6,068	5,273
Provision for Income Taxes	4,534	4,012	3,631	2,686	2,185	1,935
NET EARNINGS	$ 7,957	$ 7,009	$ 6,345	$4,535	$3,883	$3,338
Weighted Average Common Shares	1,229	1,277	1,338	1,499	1,562	1,648
BASIC EARNINGS PER SHARE	$ 6.47	$ 5.49	$ 4.74	$3.03	$2.49	$2.03
Diluted Weighted Average Common Shares	1,234	1,283	1,346	1,511	1,570	1,658
DILUTED EARNINGS PER SHARE	$ 6.45	$ 5.46	$ 4.71	$3	$2.47	$2.01

Consolidated Balance Sheets

Current Assets:						
Cash and Cash Equivalents	$ 2,538	$ 2,216	$1,723	$1,929	$2,494	$1,987
Receivables, net	2,029	1,890	1,484	1,398	1,395	1,245
Merchandise Inventories	12,549	11,809	11,079	11,057	10,710	10,325
Other Current Assets	608	569	1,016	895	773	963
Total Current Assets	17,724	16,484	15,302	15,279	15,372	14,520
Property and Equipment, at cost	40,426	39,266	38,513	39,064	38,491	38,975
Less Accumulated Depreciation and Amortization	18,512	17,075	15,793	15,716	14,422	14,527
Net Property and Equipment	21,914	22,191	22,720	23,348	24,069	24,448
Goodwill	2,093	2,102	1,353	1,289	1,170	1,120
Other Assets	1,235	1,196	571	602	473	430
Total Assets	42,966	41,973	39,946	40,518	41,084	40,518
Current Liabilities:						
Short-Term Debt	710	350	290	0	0	0
Accounts Payable	7,000	6,565	5,807	5,797	5,376	4,856
Accrued Salaries and Related Expenses	1,484	1,515	1,391	1,428	1,414	1,372
Sales Taxes Payable	508	476	434	396	472	391
Deferred Revenue	1,669	1,566	1,468	1,337	1,270	1,147
Income Taxes Payable	25	34	35	12	22	23
Current Installments of Long-Term Debt	542	77	38	33	1,321	30
Other Accrued Expenses	2,195	1,941	1,806	1,746	1,587	1,557
Total Current Liabilities	14,133	12,524	11,269	10,749	11,462	9,376
Long-Term Debt, excluding current installments	22,349	20,789	16,869	14,691	9,475	10,758
Other Long-Term Liabilities	1,855	1,965	1,844	2,042	2,051	2,146

Deferred Income Taxes	296	379	642	514	319	340
Total Liabilities	38,633	35,657	30,624	27,996	23,307	22,620
STOCKHOLDERS' EQUITY						
Common Stock, par value $0.05	88	88	88	88	88	87
Paid-In Capital	9,787	9,347	8,885	8,402	7,948	6,966
Retained Earnings	35,519	30,973	26,995	23,180	20,038	17,246
Accumulated Other Comprehensive Loss	(867)	(898)	-452	46	397	293
Treasury Stock, at cost	(40,194)	(33,194)	-26,194	-19,194	-10,694	-6,694
Total Stockholders' Equity	4,333	6,316	9,322	12,522	17,777	17,898
Total Liabilities and Stockholders' Equity	$ 42,966	$ 41,973	$39,946	$40,518	$41,084	$40,518
Market capitalization at end of fiscal year	$163,331	$167,677	$138,332	$115,953	$92,477	$64,808

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